Developments in Marketing Science:
Proceedings of the Academy of Marketing Science

Victoria L. Crittenden *Editor*

Proceedings of the 1992 Academy of Marketing Science (AMS) Annual Conference



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FOREWORD

I had no idea what to expect when accepting the position as editor of Developments in Marketing Science, Volume XV. I was forewarned about the negatives (e.g., inadequacies in the postal service, requests for time extensions, oversize sheets not conforming to guidelines), and reminded about the positives (i.e., importance of service to our profession, the notoriety received via the authors' curriculum vitae). Looking back over the last few months, I must admit that the negatives did transpire. Fortunately, in the grand scheme of things, the negative impact was minimal. My memories of this experience will evolve around the many new acquaintances I made during January and February of 1992. Being Proceedings Editor has allowed me a unique opportunity to interact with marketing scholars from all around the world. The telephone conversations and FAX transmissions have made me feel good about my chosen profession. My thanks to paper authors, track chairs, Bill Darden, Keith Price, and numerous department assistants and secretaries.

So, would I recommend this position to others? Yes, assuming you have the high quality internal support which I have had here at Boston College. Paul Riley, my graduate assistant, has worked daily on this project. His author database can only be topped by his organizational skills. Mary Pacheco, the Marketing Department graduate assistant, was great at taking over the production of much of the beginning material in the Proceedings. Suzy Laird, a sophomore at Boston College and the marketing department's work study assistant, responded quickly to needs such as photocopying, organizing, faxing, and typing page numbers. Keeping all of our minds straight was Liz Shanley, the Marketing Department secretary--without whom no work would ever make it out our door! Finally, neither Paul, Mary, Suzy, Liz, or I would have had the opportunity to work on this project had it not been for the financial backing provided by our Dean. Much thanks and appreciation are due Dean John J. Neuhauser of The Carroll School of Management for his generous financial support.

So as one can see after reading the first two paragraphs, the Proceedings is the result of many individual contributions--which made my job as Proceedings Editor interesting, enjoyable, and FUN! I hope we have not made any mistakes, but chances are some were made. I apologize and take full credit for any errors or omissions in this Proceedings.

April 22, 1992
Chestnut Hill, Massachusetts

Victoria L. Crittenden
Boston College

PREFACE

The Academy was founded in 1971, held its first Annual Conference in 1977, and has grown and prospered ever since. The relevancy of the Academy's mission and activities to our chosen target market of the marketing professoriate has been a key factor in attracting the discipline's best and brightest from all over the world.

The Revised Articles of Association of the Academy, approved by the Board of Governors in the Spring of 1984 and by the general membership in the Fall of that year, defines the mission of the Academy as follows:

1. Provide leadership in exploring the normative boundaries of marketing, while simultaneously seeking new ways of bringing theory and practice into practicable conjunction.

2. Further the science of marketing throughout the world by promoting the conduct of research and the dissemination of research results.

3. Provide a forum for the study and improvement of marketing as an economic, ethical, and social and political force and process.

4. Furnish, as appropriate and available, material and other resources for the solution of marketing problems which confront particular firms and industries, on the one hand, and society at large on the other.

5. Provide publishing media and facilities for Fellows of the Academy and reviewer assistance on Fellows' scholarly activities.

6. Sponsor one or more annual conferences to enable the Fellows of the Academy to present research results; to learn by listening to other presentations and through interaction with other Fellows and guests; to avail themselves of the placement process; to conduct discussions with book editors; and to exchange other relevant information.

7. Assist Fellows in the better utilization of their professional marketing talents through redirection, reassignment and relocation.

8. Provide educator Fellows with insights and such resources as may be available to aid them in the development of improved teaching methods, materials, devices, and directions.

9. Seek means for establishing student scholarships and professional university chairs in the field of marketing.

10. Offer Fellow of the Academy status to business and institutional executives and organizations.

11. Modify the Academy's purpose and direction as the influence of time and appropriate constructive forces may dictate.

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A MODEL OF THE RELATIONSHIP BETWEEN THE ENVIRONMENT, STRATEGY, AND PERFORMANCE

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Abstract

For the past two decades, strategic management research has acknowledged the importance that adapting to the environment can have on the long-term success of the firm (c.f. Miles and Snow 1978, Snow and Hambrick 1980, Chakravarthy 1982). However, marketing research has only recently began to acknowledge this critical relationship (McKee, Varadarajan, and Pride 1989). McKee, Varadarajan, and Pride (1989) present a framework which examines the relationship between environmental dynamism, the type of adaptive strategy utilized, and the resulting performance of the firm. This paper extends the environmental focus presented by McKee, Varadarajan, and Pride by considering how five different dimensions of the environment (complexity, dynamism, concentration, capacity, and interconnectedness) interact with the type of adaptive strategy chosen to ultimately impact the overall performance level of a firm.

Introduction

The strategic management literature of the last two decades acknowledges the importance that adapting to the environment has on the long-term success of the firm (c.f. Miles and Snow 1978, Snow and Hambrick 1980, Chakravarthy 1982). However, the marketing literature has only recently begun to examine the importance of strategic adaptability (c.f. Zeithaml and Zeithaml 1984). While Achrol and Stern (1988) have identified a number of dimensions to define a firm's external environment, only the effect of environmental dynamism on the link between strategy and performance has been examined (McKee, Varadarajan, and Pride 1989).

Although environmental dynamism is important, Achrol and Stern (1988) suggest that there are at least four other environmental dimensions which should be considered when defining the relationship between the environment, the type of strategy utilized by a firm, and its performance. Specifically, the five dimensions identified by Achrol and Stern (1988) are: (1) environmental dynamism, (2) environmental complexity, (3) environmental concentration, (4) environmental capacity, and (5) environmental interconnectedness. The purpose of this paper is to broaden the current scope of environmental research by focusing on the relationship between all the identified dimensions of the environment, the strategy chosen to adapt to the environment, and a firm's performance.

The following study thus 1) provides a brief description of the different types of adaptive strategies based on Miles and Snow's (1978) typology, 2) presents propositions as to how each of the five identified environmental dimensions influences the type of adaptive strategy chosen by the firm, 3) highlights the empirical studies which demonstrate the impact that adaptive strategy can have on the overall performance of the firm, and 4) suggests areas where future research could be beneficial.

Miles and Snow Typology

Miles and Snow (1978) propose a typology which classifies the different strategies a firm can utilize to adapt to its environment. The typology is parsimonious in that only four different adaptive strategies are identified, yet the weight of the literature suggests the typology adequately explains variations among the actions and performances of firms within the same industry (Hambrick 1983). In addition, the literature also suggests that the environmental conditions faced by a firm influence the type of adaptive strategy selected (c.f. Snow and Hrebiniak 1980; Miles 1982; McKee, Varadarajan, and Pride 1989). The four types of adaptive strategies identified by Miles and Snow (Defenders, Prospectors, Analyzers, and Reactors) are discussed below.

Defender

Miles and Snow (1978) describe a Defender strategy as one in which the firm seldom makes adjustments in the organization's technology, structure, or methods of operation. Managers of firms employing a Defender strategy thus focus on attempts to capture a part of an established market so that the firm can create a stable set of products/services for a clearly defined market segment. This strategy appears to correspond with Porter's (1980) description of a niche strategy.

Miles and Snow further suggest that a firm using a Defender strategy typically tries to aggressively maintain its position within a market and ignores developments outside the firm's own domain. The focus of the firm is primarily to increase efficiency.

Prospectors

Miles and Snow state that firms using a Prospector strategy focus on the development of new products and the expansion of the firm's operations into new market segments. Thus, in order to identify new areas of potential opportunity, firms using a Prospector strategy need to develop and maintain the capacity to monitor a wide range of environmental conditions, trends, and events. The orientation of the firm using a Prospector strategy is consequently directed towards organizational effectiveness (doing the right things) in contrast to the Defender's focus on efficiency (doing things right).

Analyzers

Miles and Snow argue that an Analyzer strategy is a hybrid of the Prospector and Defender strategies. As is the case with the Defender strategy, part of the firm's operations take place in a stable environment where the firm can operate routinely and efficiently. However, the same firm can also be involved in areas having more turbulent environmental conditions. Here the strategy of the firm includes imitating the most promising new developments which are generated by the Prospectors within the industry.

Miles and Snow (1978) propose that Analyzers consolidate the strengths of both Prospectors and Defenders into a single system. The benefit of the Analyzer strategy is in the minimization of risk (i.e., the firm is in more than one domain) while at the same time maximizing the opportunities for profitability (i.e., looking for new opportunities). Thus, Analyzers can be considered to be avid followers of change. The monitoring of emerging products helps

Analyzers to adopt the most promising product innovations of the Prospector firms without the high expenditures of extensive research and development programs. Another advantage is the firm's dual choice of expansion though penetration of existing markets or through new markets and new product introductions.

Because Analyzers are involved in both stable and constantly changing products/markets, the firm's evaluation of performance is unit specific. Performance evaluations for stable subunits are based on efficiency (i.e., cost budgets), while subunits operating within turbulent environments are evaluated based on their level of effectiveness (i.e., projections of market penetration and profitability). Miles and Snow (1978, p. 78) state that Analyzers have the opportunity to be the most successful firms within an industry:

> "Those Analyzer organizations that are able to accomplish these twin performance-appraisal objectives (efficiency and effectiveness) frequently are among the most successful organizations in their respective industries."

Reactor

Miles and Snow consider firms to be Reactors if the organization is unable to respond effectively to uncertainty within the environment. Reasons why firms often fail to adjust effectively and consistently with the environment include (1) the failure of management to identify a viable organizational strategy, (2) a viable strategy is identified, however, the corresponding structure is not properly developed to implement the strategy, or (3) the strategy-structure relationship no longer fits shifting environmental conditions. They propose that Reactors operate within an industry by reacting to the environment as opposed to trying to adapt to the environment.

Summary

The preceding sections reviewed the Miles and Snow typology and identified the strategies available to firms in their attempts to adapt to their environment. McKee, Varadarajan, and Pride (1989) present a framework which extends this discussion through their examination of the relationship between the degree of environmental dynamism, the adaptive strategy utilized by a firm, and the overall performance of the organization. However, Achrol and Stern (1988) argue that environmental dynamism is only one of the environmental dimensions which should be considered when evaluating the relationship between a firm's environment, adaptive strategy, and performance. The next section discusses how the five environmental dimensions identified in the literature can potentially have an impact on which strategy a firm should select in order to adapt to its environment.

Environmental Dimensions, Adaptive Strategies, and Performance

The following section broadens the environmental focus of McKee, Varadarajan, and Pride (1989) by specifically considering how all of the dimensions of the environment can influence the relationships between a firm's environment, its choice of adaptive strategy, and the organization's performance. The five dimensions typically associated with a firm's environment are (1) environmental complexity, (2) environmental dynamism, (3) environmental concentration, (4) environmental capacity, and (5) environmental interconnectedness (Achrol and Stern 1988). The relationship between each of these environmental dimensions and the adaptive strategy employed by a firm is the focus of the discussion which follows. Propositions for future research are included as part of these discussions.

Environmental Complexity

Duncan (1972) defines environmental complexity as the degree to which the factors comprising a firm's environment are few (simple environment) or many (complex environment). He further suggests that environmental complexity also takes into consideration the degree of homogeneity within the environment. When a firm is faced with a small number of environmental factors and a homogeneous environment, a stable set of products can be employed within a clearly defined market segment. We suggest that these environmental conditions describe Miles and Snow's (1978) Defender strategy. This leads to our first proposition.

> P1a: The lower the degree of complexity within an environment, the greater the probability that a firm will employ a Defender strategy.

Duncan argues that when a firm faces a highly complex environment (i.e., a large number of environmental factors to consider and a heterogeneous environment), the firm must attempt to constantly analyze and adapt to changing environmental conditions. Miles and Snow's (1978) Prospector strategy similarly involves the constant review of environmental conditions to facilitate the consideration of new opportunities, by way of product innovation and movement into new market segments. This leads to our second proposition.

> P1b: As the complexity within an environment increases, the probability that a firm will employ a Prospector strategy also increases.

Environmental Dynamism

Duncan (1972) defines environmental dynamism as the degree to which environmental factors remain stable over time. When they remain stable over a specific period of time, the environment is considered to be static (Duncan 1972). He suggests that a static environment allows for stability within the environment, which affects how the firm adapts to the environment. Thus, within a stable environment, a firm is able to predict with some degree of accuracy the future demands and needs of the firm. Further, a static environment allows a firm to further develop existing market segments. We suggest that adapting to the environment through the development of existing market segments corresponds to Miles and Snow's (1978) Defender strategy. This leads to our third proposition.

> P2a: The more static the environmental conditions faced by a firm, the greater the probability that the firm will employ a Defender strategy.

An environment is considered dynamic when the factors the organization deals with are constantly changing over time. Dess and Beard (1984) propose that in such cases organizations shift part of their operations into stable and homogenous market segments so that the firm can reduce the overall degree of environmental uncertainty. This allows the firm to compete effectively in a dynamic environment. They further suggest that firms need homogenous segments in order to obtain the resources necessary to cope with the firm's operations within uncertain market segments. We suggest that the splitting of the firm's operations into stable and uncertain segments represents the underlying philosophy of Miles and Snow's (1978) Analyzer strategy. This leads to our fourth proposition.

> P2b: The greater the degree of dynamism within a firm's environment, the greater the probability that the firm will employ an Analyzer strategy.

Environmental Concentration

Achrol and Stern (1988) define environmental concentration as the extent to which a market is perceived to be controlled by a few (highly concentrated environment) or many (fragmented environment) firms. Porter (1980) suggests that a highly concentrated industry does not have intense competition since there is a "general" agreement as to the market share deserved by each of the firms. As a result, firms within a highly concentrated industry typically attempt to defend their current market position. This leads to our fifth proposition.

> P3a: The greater the degree of concentration within an industry, the greater the probability that a firm will employ a Defender strategy.

Porter argues that a firm within a fragmented industry (i.e., low concentration) must deal with diverse marketing needs and high product differentiation. He suggests that the effective ways for a firm to adapt to environmental conditions within a fragmented industry include (1) encouraging the introduction of new products, (2) increasing the efficiency of existing products, and (3) maintaining existing market segments. We suggest that focusing on both product innovations and existing products/markets corresponds to Miles and Snow's (1978) Analyzer strategy. This leads to our sixth proposition.

> P3b: The greater the degree of fragmentation within the industry, the greater the probability that a firm will employ an Analyzer strategy.

Environmental Capacity

Starbuck (1976) defines environmental capacity (i.e., environmental munificence) as the extent to which the environment can support sustained growth. Dess and Beard (1984) suggest that organizations seek out environments which permit growth and stability. They further suggest that the ability of the environment to accommodate continued growth allows for the accumulation of slack resources by the firm. This accumulation of slack resources increases the ability of the firm to search for new markets as well as to develop new product innovations. We suggest that the ability to continuously search for new products and new markets corresponds to Miles and Snow's (1978) Prospector strategy. This leads to our seventh proposition.

> P4a: The greater the capacity of the environment, the greater the probability that a firm will employ a Prospector strategy.

Porter (1980) argues that when a firm faces restricted environmental capacity, the firm must deal with increased competition for its existing market share. Firms with restricted environmental capacity, therefore, focus on defending their current market share by trying to counteract the actions of their competitors. We suggest that this type of adaptive strategy is consistent with Miles and Snow's (1978) Defender strategy. This leads to our eighth proposition.

> P4b: The smaller the capacity of the environment, the greater the probability that a firm will employ a Defender strategy.

Environmental Interconnectedness

Achrol and Stern (1988) define environmental interconnectedness as the number and pattern of environmental linkages perceived among relevant organizations. Pfeffer and Salancik (1978) propose that interconnectedness among organizations creates environmental uncertainty since environmental changes can occur quickly and without warning and can potentially create consequences that have not been anticipated by the firm. As a result, environmental interconnectedness can be considered to have an impact similar to environmental dynamism (Dess and Beard 1984).

In order to cope with a highly interconnected and uncertain environment, Dess and Beard (1984) propose that firms focus on both (1) developing new product/market segments while increasing the efficiency of existing products, and (2) the further penetration of existing market segments. We suggest that Miles and Snow's (1978) Analyzer strategy most closely matches this adaptive strategy. This leads to our ninth proposition.

> P5a: The greater the degree of environmental interconnectedness, the greater the probability that a firm will employ an Analyzer strategy.

Dess and Beard (1984) argue that when a firm faces a low level of environmental interconnectedness, it must deal with more static environmental conditions. They further suggest that, within this static environment, firms are better able to predict the future demands and needs of the organization. Thus, firms are able to establish a stable set of product and market segments which match the characteristics of Miles and Snow's (1978) Defender strategy. This leads to our tenth proposition.

> P5b: The lower the level of environmental interconnectedness, the greater the probability that a firm will employ a Defender strategy.

Summary

The discussion presented above suggests that the different dimensions of the environment can play a critical role in determining the type of adaptive strategy employed by a firm. The selection of the "correct" adaptive strategy is critical since the strategy has a direct impact on the overall performance of the firm (Snow and Hrebiniak 1980; Miles 1982; McKee, Varadarajan, and Pride 1989). The next section considers this relationship between organizational strategy and firm performance.

Organizational Strategy and Firm Performance

A number of researchers have investigated the relationship between environmental conditions, a firm's adaptive strategy, and the performance level of the firm (Snow and Hrebiniak 1980; Miles 1982; McKee, Varadarajan, and Pride 1989). Snow and Hrebiniak (1980) demonstrate that the environmental conditions which confront a firm influence the adaptive strategy employed, which in turn affects a firm's overall level of performance. These authors find that under conditions of low environmental uncertainty Defender firms exhibit the highest performance levels. In contrast, under conditions of high environmental uncertainty Analyzer firms produce the highest performance within an industry. Environmental uncertainty is operationalized in this study based on the predictability of (1) suppliers, (2) competitor's actions, (3) market factors, (4) financial/capital markets, and (5) other factors (unions, government regulatory agencies) (See Snow and Hrebiniak 1980 for a comprehensive discussion).

A recent twenty-five year empirical review of the tobacco industry by Miles (1982) observes that a firm using an Analyzer strategy (R.J. Reynolds) produces the highest performance when environmental conditions are highly competitive yet relatively stable. Miles suggests that the shifting of the overall corporate strategy of the tobacco companies away from complete dependence on tobacco products has forced firms to look for new product innovations and new market segments.

McKee, Varadarajan, and Pride (1989) have also found that different adaptive strategies result in different performance levels. However, the specific hypothesis tested within their study (i.e., that the Analyzer strategy would yield the optimal performance) was not found to be statistically significant.

Thus, the weight of the literature suggests that there appears to be definitive relationships between a firm's organizational strategy and subsequent performance. In the organizational behavior literature, contingency theory suggests that there is a "best" fit between the environment and the strategy chosen. This "best" fit produces the optimal combination for the performance of the firm. This theory, plus our review of the environment-strategy literature suggests the following set of propositions.

P6a: When environmental complexity is low, firms adopting a Defender strategy will exhibit superior performance.

P6b: When environmental complexity is high, firms adopting a Prospector strategy will exhibit superior performance.

P6c: When an environment is static, firms adopting a Defender strategy will exhibit superior performance.

P6d: When the environment is dynamic, firms adopting an Analyzer strategy will exhibit superior performance.

P6e: When an environment is concentrated, firms adopting a Defender strategy will exhibit superior performance.

P6f: When an environment is fragmented, firms adopting an Analyzer strategy will exhibit superior performance.

P6g: When the capacity of the environment is great, firms adopting a Prospector strategy will exhibit superior performance.

P6h: When the capacity of the environment is small, firms adopting a Defender strategy will exhibit superior performance.

P6i: When the degree of environmental interconnectedness is high, firms adopting an Analyzer strategy will exhibit superior performance.

P6j: When the degree of environmental interconnectedness is low, firms adopting a Defender strategy will exhibit superior performance.

The next section presents some suggestions for future marketing research to investigate the model suggested by the propositions presented herein (see **Figure 1**).

Suggestions for Future Research

The Empirical Testing of Model Presented in This Paper

One area where marketing research might benefit the strategic planning literature is from an empirical test of the framework presented in this paper. The operationalization of the different Miles and Snow's (1978) adaptive strategy categories can be accomplished based on self-typing by managers or through objective indicators (c.f. Snow and Hambrick 1980). Self-typing allows managers to identify the strategic classification that most appropriately describe their firm (Snow and Hambrick 1980). A number of researchers have used this method to classify firms based on the type of adaptive strategy employed (c.f. Snow and Hrebiniak 1980; Zajac and Shortell 1989; McKee, Varadarajan, and Pride 1989).

However, the potential weaknesses of the self-typing approach include (1) managers may believe that their firm is unique and therefore not classifiable, (2) different managers within an organization may have different perceptions of their firm's adaptive strategy, (3) the potential exists for reporting a firm's intended adaptive strategy instead of the strategy that is actually implemented (realized), and (4) self typing does not allow an external/objective confirmation of a manager's response (Snow and Hambrick 1980).

FIGURE 1
THE PROPOSED MODEL



Another approach for operationalizing Miles and Snow's (1978) adaptive strategies is to use objective external data. Hambrick (1983) operationalizes adaptive strategy by comparing the percent of sales derived from new products by a firm with the industry average in order to analyze whether the firm is a Defender (i.e., the firm is below the industry average in new product introductions) or a Prospector (the firm is above the industry average). However, a weakness of this method is that the classification system does not consider Analyzer and Reactor strategies.

Hambrick suggests that a more effective method of operationalizing the Miles and Snow (1978) typology is to use both objective data and managerial perceptions. Hambrick (1981) operationalizes Miles and Snow's adaptive strategies by using data on recent product market additions (objective), as well as manager's perceptions of which adaptive strategy best describes their firm. The use of both objective data and managerial perceptions also allows a researcher to cross-validate the classification.

Identifying which strategy a firm is using, however, looks at only one side of the firm/environment interaction. Achrol and Stern (1988) have suggested operationalizations of their environmental dimensions that are quite straight-forward. The next subsection considers how the interaction between the different dimensions of the environment can affect performance.

The Interaction of the Different Environmental Dimensions

Testing the propositions in this paper is only the first step in the identification of how the environment can impact a firm's choice of an adaptive strategy and the overall performance of the firm. Another fundamental question worthy of consideration asks how the interaction of the different environmental dimensions impacts the choice of an adaptive strategy. For example, under "conflicting" environmental conditions (ie. conditions of high environmental capacity and high environmental concentration) does the ability to produce new products and the expansion into new markets (Prospector strategy) override the inherent reduction of competitive practices characteristic of a highly concentrated environment (Analyzer strategy)? Under these conflicting environmental conditions, which adaptive strategy should be selected? We suggest that future research should consider not only the many dimensions of the environment, but the potential interaction of these dimensions as well.

Measuring Performance

The literature has traditionally used objective measures of both marketing (e.g. market share, sales growth) and financial (e.g., return on investment, objective earnings per share) performance. More recently perceptual measures of performance have also come into prominence. A combination of the two approaches thus appears to be the most appropriate. In fact, Covin and Slevin (1989) suggest that if share measures utilizing objective performance are used, they should be weighted by managers perceptions of the importance of the measure. Axxin (1988), on the other-hand, finds that managers' perceptions of profit performance are accurate measures of actual organizational performance. Cooper and Klenischmidt (1985) recommend that these measures include the areas of growth and sales volume to allow for the inclusion of the dynamic nature of the market.

Summary

For the last two decades, strategic management research has acknowledged the importance that adapting to the environment can have on the long-term success of the firm (Miles and Snow 1978, Snow and Hambrick 1980, Chakravarthy 1982) However, marketing research has only recently acknowledged the critical impact that the environment can have on a firm's selection of an adaptive strategy and the subsequent performance of the organization (McKee, Varadarajan, and Pride 1989). Further, McKee, Varadarajan, and Pride present a framework that looks at the relationship between environmental dynamism, the type of adaptive strategy employed, and the resulting performance of the firm. This paper broadens the environmental perspective presented by McKee, Varadarajan, and Pride by considering how all of the five different dimensions of the environment (complexity, dynamism, concentration, capacity and interconnectedness) influence the type of adaptive strategy chosen, and ultimately how the interaction between the environment and the strategy utilized impacts the overall performance of a firm. The model presented in **Figure 1** depicts the interactive nature of these affects.

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EXTERNAL AND INTERNAL ENVIRONMENTAL DETERMINANTS OF PERCEIVED UNCERTAINTY

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Abstract

Research of uncertainty has traditionally focused on dimensions of the external environment as key sources of decision-making uncertainty. The research reported here seeks to supplement the traditional perspective by examining the roles of two important internal channel environment dimensions. Specifically, measures reflecting member performance and leader provision of information are included with measures of environmental capacity and dynamism to model decision-making uncertainty. Data were obtained from dealers in the franchised automobile industry, and results indicate that one of the internal environment constructs, dealer performance, is a consistently significant explanator of decision-making uncertainty. Environmental dynamism is also found to be positively related to uncertainty.

Introduction

Recent channels research of decision-making uncertainty has dealt with external environmental issues as the key sources of uncertainty. Among other characteristics of the environment, its capacity and dynamism have been positioned as salient variables to explain uncertainty (Achrol and Stern 1988). Capacity refers to the favorableness or munificence of the external environment, and dynamism is the extent of change or variability in marketing forces and the output environment (Achrol and Stern, 1988; Achrol, Reve, and Stern 1983; Dwyer and Welsh 1985; Dwyer and Oh 1987). Because of the central role of uncertainty in organizational and channel theory (Achrol, Reve, and Stern 1983; Duncan 1972; Pfeffer and Salancik 1978; Thompson 1967), and limited explanation of uncertainty by environmental characteristics such as capacity and dynamism (cf., Achrol and Stern 1988; Bourgeois 1985), additional attention to the topic is warranted. In particular, an evaluation of other types of explanatory variables offers a straight forward avenue to supplement existing research in the hopes of achieving better overall explanatory power.

Along with environmental capacity and dynamism, we propose and test two variables from the internal environment of channels. The channel member's performance and the channel leader's provision of information are examined as precursors of uncertainty formation. Better firm performance and availability of information regarding the external environment are expected to decrease perceived uncertainty. Further, the magnitude of effects of these variables is expected to be comparable to that of the external variables, environmental capacity and dynamism.

The authors examine both external and internal environmental effects on perceived uncertainty of franchised dealers in the automobile industry. Dealer's perceived uncertainty is proposed as a function of perceived capacity and dynamism of the local output environment, as well as past dealership performance and uncertainty absorption by the manufacturer's provision of information to the dealer.

Background and Hypotheses

The interplay between external and internal channel environments is suggested by earlier research of channel control and by more recent theory and research of channels (Achrol, Reve, and Stern 1983; Dwyer and Oh 1987; Etgar 1977; Heide and John 1988; Klein, Frazier, and Roth 1990). The external environment has been conceptualized as a stock of resources and/or as a source of information, lending emphasis to problems of environmental uncertainty and dependence (Aldrich and Pfeffer 1976; Duncan 1972). In marketing channels, the external environment may threaten channel and member performance, create uncertainty and conflict, and lead to environmental or channel management attempts (Achrol, Reve, and Stern 1983; Dwyer and Oh 1987; Dwyer and Welsh 1985; Etgar 1977; Klein, Frazier, and Roth 1990).

Uncertainty reflects both information and resource perspectives of external environments and is defined as the perception of inadequate information to plan for and predict future environmental conditions (Pfeffer and Salancik 1978). Uncertainty may arise from changes in input, output, legal, technological, or other sectors of the environment (for a review see Aldrich 1979). Perceived complex, dynamic environments should logically correspond with high uncertainty, and simple, static environments should correspond with low uncertainty (Duncan 1972). However, only a weak link between the dimensions of external environments and uncertainty perceptions has been found (Bourgeois 1985).

This lack of strong correspondence may be attributed to individual differences in cognitive complexity, tolerance for ambiguity, experience, and decision discretion (Downey, Hellriegel, and Slocum 1975). One solution is to conceptualize the environment as an enacted phenomena (Weick 1969), since although actual environmental conditions will impact outcomes, it is the perception of the environment that likely influences decision making (Achrol and Stern 1988; Dwyer and Welsh 1985; Pfeffer and Salancik 1978). The present research examines the effects of perceived environmental capacity and dynamism on decision-making uncertainty.

A second explanation for uncertainty not corresponding strongly to environmental characteristics is its amelioration by individual firms in

their own responses to and interaction with the environment (Achrol, Reve, and Stern 1983; Bourgeois 1985; Downey, Hellriegel, and Slocum 1975). Individual firms may be relatively protected or effective in their own microenvironments. The present study examines this second explanation by specifically modeling uncertainty as a function of the performance of the dealer firm and the manufacturer's provision of environmental information to dealers.

Hypotheses

Scarcity and instability of output resources, such as customer demand, may lead to uncertainty (Achrol, Reve, and Stern 1983). Further, changes in competitor strategies and customer preferences are likely to result in uncertainties in planning, inventory, and marketing decisions (Achrol and Stern 1988). Thus, decision-making uncertainty should be less when the output environment is perceived as favorable and should be greater under dynamic conditions of the environment:

H1. The greater the environmental capacity, the less uncertainty; and

H2. The greater the environmental dynamism, the more uncertainty.

However, the linkage between environmental characteristics and perceived uncertainty has not been consistently supported, possibly due to individual perceptual differences or coping abilities or as a result of uncertainty absorption (Bourgeois 1985; Downey, Hellriegel, and Slocum 1975). The dealer's ability to cope with the environment may be reflected in dealership performance, with better performance decreasing the level of perceived uncertainty (see Aldrich and Pfeffer 1976). The dealer's environmental coping ability and, thus, uncertainty, may also be affected by other channel members' absorption of environmental uncertainty (Achrol, Reve, and Stern 1983; Weick 1969). Decision-making uncertainty is proposed, not only as a function of the external environment, but also as a function of its absorption by dealership performance and by the manufacturer's provision of information regarding the environment:

H3. The better the dealership performance, the less uncertainty; and

H4. The more the manufacturer provides information to the dealer, the less uncertainty.

Methodology

The research is set within a single industry to control for concurrent variation in several sectors of the environment and to test specific relationships among the external and internal environments of channels (cf., Calder, Phillips, and Tybout 1981). The automobile dealership industry was chosen so that principal dyadic relationships between the dealer and manufacturer could be studied (Achrol, Reve, and Stern 1983). Variation in local retail environments are expected in output and competitive sectors, but within the industry, little variation is expected in legal, social, or technological sectors.

Sample

The sample consisted of franchised automobile dealers in a Midwest state. Self-administered questionnaires were mailed to a random sample of 400 dealer-owned franchises. Surveys were addressed to the owner, but directed to the franchise manager, if owners were not directly involved with dealership management. Taken from a list of all franchised dealers in the state, the effective sample was reduced to 366 by dealerships no longer in business (1.0 percent), dealerships with only commercial truck franchises (4.0 percent), and dealers who owned more than one franchise (3.5 percent). Completed surveys were received from 125 dealerships for an effective response rate of 34.2 percent. Dealer perceptions were used to assess uncertainty and characteristics of the external environment, as well as dealership performance and the manufacturer's provision of information.

Perceptual Measures

Measures of dealer perceptions were developed from a literature review; subsequent interviews with dealers were used to clarify wording and modify the content of scales. A summary of the measures is provided in Table 1, and correlations are given in Table 2.

The first set of measures were designed to capture decision-making uncertainty regarding four types of decisions: levels of inventory, brands and models to carry, brands and models to promote, and advertising and promotion decisions. These were evaluated for three dimensions of uncertainty: predictability of consequences, information adequacy, and confidence in decisions made (Duncan, 1972; Achrol and Stern 1988). Each decision type was evaluated with six-point scales anchored from "can all the time" to "can never predict" consequences (prediction uncertainty), "no additional" to "a great deal more" information needed (information uncertainty), and "totally" to "not at all comfortable" with this decision (decision uncertainty). Exploratory factor analysis, using a scree-plot of eigenvalues, supports these three dimensions, which explain 71.3 percent of the variance in uncertainty. Three dependent variables were formed by averaging the responses to the four decision types for each dimension: (1) prediction uncertainty (UNCPRED); (2) information uncertainty (UNCINFO); and (3) decision uncertainty (UNCDEC). Each four-item measure displays adequate reliability (alpha = .80, .90, and .86, respectively).

Although some studies have employed objective secondary data to assess the external environment of organizations (cf., Dess and Beard 1984; Keats and Hitt 1988), others have argued that the decision maker's interpretation of environmental conditions precipitates actions, as well as related cognitions and feelings (Pfeffer and Salancik 1978; Weick 1969). Following Achrol and Stern's (1988) operationalizations, we

TABLE 1
DESCRIPTION OF MEASURES

Construct	Dimensions[1]	Scale	Reliability[2]
Decision-Making Uncertainty	1. Prediction Uncertainty (UNCPRED)	Can predict consequences, 6-pt.[3]	.80, 4 items
	2. Information Uncertainty (UNCINFO)	Information needed, 6-pt.	.90, 4 items
	3. Decision Uncertainty (UNCDEC)	Comfortable with decision, 6-pt.	.86, 4 items
Environmental Capacity	1. Capacity of Local Market (CAPAC)	Favorableness of conditions, 7-pt.	.78, 5 items
Environmental Dynamism	1. Competitive Dynamism (DYNCMP)	Frequency of change in local market, 6-pt. scale used for all dimensions	.88, 5 items
	2. Product Dynamism (DYNPROD)		.72, 4 items
	3. Customer Demand Dynamism (DYNDEM)		.78, 4 items
	4. Market/Marketing Dynamism (DYNMKT)		.77, 3 items
Dealer Performance	1. Goal Performance (DPERF)	Performance in prior year, relative to goals, 7-pt. scale	.80, 5 items
Information Provision	1. Manufacturer's Contribution to Available Information (MINFO)	Percent of available information provided by manufacturer to dealer	.74, 5 items

1. Dimensions revealed in exploratory factor analysis
2. Coefficient alpha
3. 6-point scale used

measured dealer perceptions of capacity and dynamism as two aspects of the external environment. Capacity was measured as the perception of the favorableness or unfavorableness of economic growth, automobile demand, general consumer demand, competition, and demand for the dealer's products. A seven-point scale was used, ranging from very unfavorable to very favorable conditions in the local market. The five items appear to be unidimensional, as evidenced by exploratory factor analysis, and reliable (alpha = .78). An index of capacity was created by averaging the item responses (CAPAC).

Environmental dynamism, the frequency of change or dynamism in marketing forces in the output environment (Achrol and Stern 1988), was measured using a 15-item scale to capture perceptions of the frequency of change in the output market, competitor's strategies, marketing strategies, and customer preferences. The six-point scale used was anchored from "no" to "very frequent" change in the local market. Exploratory factor analysis reveals four dimensions of dynamism: (1) competitive (DYNCMP); (2) product (DYNPROD); (3) customer demand (DYNDEM); and (4) market/marketing (DYNMKT). The four factors account for 68.4 percent of the variance in dynamism. Indices were created by averaging the items for each dimension, and, as seen in Table 2, the measures are positively correlated. Reliability is indicated as follows: (1) DYNCMP, 5 items, alpha = .88; (2) DYNPROD, 3 items, alpha =.72; (3) DYNDEM, 4 items, alpha = .78; and (4) DYNMKT, 3 items, alpha = .77.

Rather than using an objective measure of performance, we considered dealership performance as an enacted phenomenon and used perceptual measures. Dealers were asked to rate their performance in the past year relative to goals for five areas: net sales, profit, market share, financial position, and business expansion. A seven-point scale was used for each performance area, ranging from: (1) "very much below goals"; to (4) "exactly met goals"; to (7) "very much above goals." Unidimensionality was indicated by a one-factor solution in exploratory factor analysis, and the five items display adequate reliability (alpha = .80). An index of performance (DPERF) was formed by averaging the five items.

The manufacturer's provision of information was assessed by a five-item scale for information regarding the industry, competition, consumers,

TABLE 2
CORRELATIONS AMONG MEASURES*

		1	2	3	4	5
1	UNCPRED	1.00				
2	UNCINFO	.14	1.00			
3	UNCDEC	.42*	.21*	1.00		
4	CAPAC	-.22*	.04	-.11	1.00	
5	DYNCMP	.00	.15	.12	-.03	1.00
6	DYNPROD	-.04	.06	.09	.14	.53*
7	DYNDEM	-.08	.22*	.05	-.01	.40*
8	DYNMKT	-.19*	-.02	.01	.23*	.39*
9	DPERF	-.42*	-.21*	-.18	.28*	.01
10	MINFO	-.07	-.05	.05	.03	.01

TABLE 2 (CONT.)

		6	7	8	9	10
6	DYNPROD	1.00				
7	DYNDEM	.44*	1.00			
8	DYNMKT	.48*	.38*	1.00		
9	DPERF	.13	-.19*	.10	1.00	
10	MINFO	-.05	.10	.00	-.02	1.00

* Correlations significant at the $p < .05$ level

technology, and legal issues. The measure asked the percent of all the dealer's available information which is provided by their principal manufacturer (that is, franchiser). One factor and adequate reliability (alpha = .74) were indicated, and an index (MINFO) was formed by averaging the five items.

Results

The hypotheses were tested through a series of regression analyses. Three models were estimated, using the three uncertainty constructs as dependent variables. In each case, the analysis began with all independent variables in the equation; sequential elimination was used until all remaining variables were statistically significant ($p < .10$). At each iteration, the variable with the lowest nonsignificant t-value was removed and the model reestimated with the remaining variables. Results are presented in **Table 3**. Multicollinearity was examined through condition indices for all regression models (Belsley, Kuh, and Welsch 1980), using the COLLIN procedure in SPSS 4.1. All condition indices were below the CI < 30 limit suggested by Belsley, Kuh, and Welsch (1980), thus multicollinearity does not appear to pose a threat to stability and interpretation.

Hypothesis 1 - 4 propose that perceived uncertainty is a function of environmental capacity and dynamism, dealership performance, and manufacturer provision of information. The first equation of **Table 1** shows results of regression analysis dealing with prediction uncertainty. The model accounts for 14 percent of the variance in prediction uncertainty, and dealership performance (DPERF) is the only significant variable remaining in the model. The analysis supports H3 that prediction uncertainty is a negative function of the dealership's past performance. On the other hand, environmental capacity and dynamism and information provision by the manufacturer are not found as explanators of prediction uncertainty, failing to support H1, H2, and H4.

Regarding information uncertainty, three variables are significant: dealer performance, capacity, and customer demand dynamism. The model accounts for 15 percent of the variation in information uncertainty. All indices of collinearity are well under the critical value. The analysis supports H2 and H3: information uncertainty is shown as a positive function of demand dynamism and a negative function of dealership performance. However, no other dynamism variables were significant, and manufacturer information provision was not shown as a significant predictor of information uncertainty. With regard to environmental capacity, H1 predicts a negative relationship, but a positive relationship was indicated for the capacity variable ($p = .07$), failing to support H1.

The final analysis concerns decision uncertainty; two independent variables are significant: dealership performance and competitive dynamism. Collinearity indices are well within acceptable ranges, and the model accounts for 8 percent of

TABLE 3
REGRESSION RESULTS*

1. Dependent Variable: Prediction Uncertainty

UNCPRED = -.373 DPERF
(p=.001)

[R^2 = .139; F = 16.34; p = .0001]

2. Dependent Variable: Information Uncertainty

UNCINFO = -.256 DPERF + .178 CAPAC + .223 DYNDEM
(p=.01) (p=.07) (p=.02)

[R^2 = .151; F = 5.75; p = .001]

3. Dependent Variable: Decision Uncertainty

UNCDEC = -.205 DPERF + .199 DYNCMP
(p=.04) (p=.04)

[R^2 = .076; F = 4.08; p = .020]

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* Standardized regression coefficients given

the variation in decision uncertainty. This analysis also provides support for both H2 and H3: decision uncertainty is shown as a positive function of competitive dynamism and a negative function of dealership performance. Hypotheses H1 and H4, regarding capacity and information provision, are not supported by the results with respect to decision uncertainty.

The dimensions of uncertainty provide three separate tests of the four hypotheses, and the results are fairly consistent. Performance of the dealership is statistically significant and in the predicted direction in all three models. Dynamism measures are also significant and in the predicted direction in two of the three models. Thus, H2 and H3 were supported by the data. Variables representing environmental capacity and manufacturer provision of information to the dealer were not significant and, in one instance, not in the predicted direction. Neither H1 or H4 were supported in the analysis.

Conclusions

A key contribution of the study is its focus on both the internal and external environments of channels as related to decision-making uncertainty. Prior research has suggested the role of external environment characteristics on uncertainty and on channel conflict and control, but little research has examined channel members' actions to absorb uncertainty. The current research is limited to only two of several environmental characteristics, but supports previous findings and extends the explanation of decision-making uncertainty by inclusion of the performance of dealers.

A central finding of the study is that environmental dynamism appears as a significant explan-

ator of automobile dealer uncertainty, but environmental capacity does not appear to be directly negatively related to decision-making uncertainty. These results are fairly consistent with Achrol and Stern's (1988) findings. Of particular interest is the finding that past dealership performance is closely linked to perceived uncertainty. Actions of dealers appear to ameliorate uncertainty. This effect was the most consistent among the four proposed determinants examined, yielding significant results when modeled with prediction, information, and decision uncertainty.

Uncertainty absorption by the manufacturer's provision of information about the environment was not indicated, however. This result may be attributed to the particular measures used or to the relatively greater importance of alternative sources of information used by dealers (such as trade associations). Manufacturer actions may exercise a less direct effect on dealer uncertainty, however. For example, manufacturer action which impedes or enhances dealer performance would have the effect of increasing or decreasing perceived uncertainty.

It should be noted that the amount of variance explained by the analysis here is modest. Several areas for future research appear promising. First, additional research of performance effects on uncertainty is needed. Second, the role of information provision should be examined through the use of more comprehensive measures of the types, amounts, sources, and quality of information provided to channel members. Third, other characteristics of external and internal environments of channels should be included in future studies of uncertainty, and, more generally, in studies of channel relationships. In particular, effects of manufacturer actions on dealer performance, and indirect effects on uncertainty could be included. Finally, research of the outcomes of decision-making uncertainty on the channel relationship and the subsequent performance of members is suggested.

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THE RELATIONSHIP OF CHANNEL STRUCTURE, CLIMATE AND POWER TO EXCHANGE: PENNINGTON REVISITED

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Abstract

It is somewhat paradoxical that the evolutionary progression of channels research has been marked by a widening departure from channel's ontological core, exchange. Channels research has increasingly focused on the collective effects of an **interaction** rather than the idiosyncratic nature of channel members. A disaggregate approach is used in this paper to develop a triadic model of channel conditions. Channel structure, climate and power are positioned in the model as interdependent constructs linked by the norm of reciprocity. The model offers a interactionalist framework from which internal political economies may be examined.

Introduction

The general endorsement of exchange governance structures within the channels paradigm has been matched by a renewed interest in the study of dyadic interactions (Arndt 1979; Dwyer, Shurr and Oh 1987; Stern and Reve 1980). Exchange governance structures address the extent to which relationships are managed by behavioral norms and expectations. Pennington (1968) was among the first to criticize channel researchers' bias toward studying only one party to an exchange, instead advocating an investigatory perspective which recognized the dynamics of both individual and group behaviors.

The interactionalist perspective employed in the present research embraces Pennington's view. Specifically, it refers to the interaction between channel members as well as the outcome of their behaviors. This is consistent with the designations advanced by a multitude of social science researchers (Bales 1950; Goffman 1959; Thibaut and Kelly 1959). Accordingly, it mandates a bilateral investigation of each channel member. The interactionalist approach toward channel relationships has since been examined in numerous contexts, for example: service encounters (Solomon et al. 1985); buyer/seller dyads (Kohli 1989); and the franchisor/franchisee relationship (Dant and Schul 1992).

Researchers who have operated within this research stream have generally employed distinct research designs. However, these researchers have tended to share a view that distribution channels are extraorganizational collections of institutions and actors. Within this context, channel members concurrently pursue their self-interests as well as collective goals. Channel exchange transpires within the context of an internal political economy, which reinforces an interactionalist perspective (Stern and Reve 1980). Research on the internal political economy has usually addressed one or the other of two dichotomous constructs: conflict and cooperation. The exhaustive treatments of conflict and cooperation are documented in Gaski's (1984) review. Conflict has received more attention than any other topic in the channels literature (Schul and Babakus 1988).

Marketers have liberally applied concepts borrowed from the communication, contract law, economics, organizational behavior and political science disciplines in their study of conflict. Injecting these multi-disciplinary perspectives into the marketing paradigm promoted a separation of the antecedents of conflict into intra- and inter-organizational categories. *Between* organizations, exchanges involve dyadic interaction across channel members which are governed by role norms and expectations. *Within* any given channel member's organization, exchange is governed via corporate culture. This classification permitted a more introspective view into between and within organizational exchanges. However, the fragmented manner in which these extradisciplinary views were adopted may have also contributed to an atomized channels research focus. This paper attempts to selectively combine certain extradisciplinary perspectives in the development of a model which offers an integrated understanding of marketing channel conditions. Thus, its objective is multi-fold: (1) to recall the interactionalist roots of contemporary channels theory, (2) to forward a simplified paragon which encompasses the tenets of exchange governance structures and (3) to offer some emergent research questions to advance our understanding of channel relationships.

Channel Conditions

Little conceptual attention has been directed toward the relationship between various channel conditions and behavioral outcomes. However, Mohr and Nevin (1990) contingency theory represents a notable exception. Contingency theory is couched in a communications framework. It offers a tripartite configuration of channel conditions: organizational structure, climate and balance of power. Each construct is treated in a parallel fashion, and they jointly form an aggregate measure of the channel relationship. While contingency theory enriches channels research, its composite measure is inconsistent with an interactionalist view.

The interactionalist perspective is predicated on the disparity between each channel member's interpretation of a single dilemma. Each action that ensues between channel members may be framed as a purposeful exchange with outcomes that depend upon the coordinated actions of both parties. Channel members' perceptual Gestalts are moderated by individual, situational and stimulus characteristics. Discord among these perceptions encourages conflict between channel members (Hawkins 1986). The outcome of dyadic interactions is in part dependent upon the economic, social and personal properties that characterize each channel member (Evans 1963). Richer insights are gained if both sides of the dyad are measured. Consequently, it appears necessary to study each channel condition from the perspective of both sides of an interactive dyad rather than from any combined perspective resulting from the channel interaction.

Exchange Governance Structure

The purposive nature of channel transactions suggests each party is aware of an implicit behavioral contract that governs channel relationships (see Macneil 1983). The duality of these exchange governance structures is illustrated in the following statement: "... those individuals responsible for adapting the interfaces have a personal as well as organiza-

tional stake in what happens and may refuse to be party to opportunistic efforts" should the spirit of exchange be emasculated (Williamson 1979, p.240). Considering the influence of channel structure is especially germane given the interactive context of channel relationships. Channel structure's influence results from the relationship between exchange governance structures and performance (Dwyer, Schurr and Oh 1987; Ruekert, Walker and Roering 1985).

Relational exchange theory offers a mean of explaining the complexities of governance structures. The theory posits that commercial exchanges constitute a continuum that ranges from purely discrete transactions to transactions characterized by an absolutely relational context. Discrete relationships are transactions that transpire within an impersonal competitive market setting. Each participant acts as a profit maximizer in discrete relationships (Miles, Arnold and Nash 1990). By contrast, relational exchanges involve long-term, on-going alliances marked by a high degree of complexity. Relational exchange are planned and administered instead of being conducted on an ad hoc basis (Arndt 1979).

Contracting norms. Discrete and relational exchanges are also discriminated by the manner in which general contracting norms are manifested in the parties' relationship (Kaufmann and Stern 1988). Solidarity, role integrity and mutuality norms permeate all exchange relationships (Kaufmann and Stern 1988). Solidarity addresses the degree of allegiance which exists between exchange partners. The norm of solidarity cements an exchange (Macneil 1980). Derived from contract law, solidarity focuses on the consummation of individual transactions. This contracting norm is generally internalized by the individuals who are party to the exchange. Those who internalize solidarity generally perceive it to be important in and of itself (Kaufmann and Stern 1988, p.536). Solidarity admininisters the continuity of exchange relationships.

Role integrity extends a dramaturgical metaphor in that it assesses the extent to which a particular dyadic role is enacted appropriately. The suitability of a dyadic participant's behavior is revealed through the reactions of fellow actors and/or observers (Solomon et al. 1985). Role integrity implicitly subsumes the role behavior of the other channel member and the shared behaviors which form the exchange relationship (Merton 1957). The interactive nature of role performance presupposes a projection of one's dyadic counterpart's behavior (role expectations) given a particular setting.

Mutuality addresses the outcomes which ensue from an exchange. Mutuality requires a "fair" distribution of return among those who are involved in the transaction (Macneil 1983). A norm of mutuality by no means ensures "equality" among channel members. However, its presence does constrain the value of a transaction to the duration of exchange. From a relational perspective, mutuality is concerned with the continuity of undifferentiated returns which result from an on-going exchange relationship. Undifferentiated returns are the lelel of precision in the prespecification of exchange terms.

These norms jointly moderate the extent to which dyadic channel interactions are contractually united. Contracting norms also regulate the structure between channel members, while influencing the internal structure of the channel organizations (Macneil 1983). These behavioral contract norms are endogenous to both internal and external values. No channel position exists in which separation of the internal from the external can be other than partially arbitrary (Macneil 1983). This implies contracting norms govern interaction *between* and *within* channel environments. It reinforces the notion that channel member interaction "depends upon the economic, social and personal characteristics of each of them" (Evans 1963, p.76). Furthermore, it supports the convergence of the interactionalist perspective with the political economy framework. For relational exchange to be sanctioned as a paradigm which explains conflict resolution, internal and external values must be regarded as both antecedent to and outcomes of commercial transactions.

Norm of Reciprocity. Relational exchange suggests that each transactional party must willingly demonstrate flexibility to maintain a cooperative relationship. A reciprocity norm is a necessary baseline to stable relationships (Gouldner 1960). The general contracting norms implicitly signify that reciprocity must be an inherent precursor to successful exchange. Reciprocity prescribes that each party to a transaction emulates the other's behavior. Organizations are more likely to maintain on-going relationships with channel members whose behavior is characterized by the norm of reciprocity.

Channel Climates

An organization's capacity to be simultaneously provokable and forgiving promotes a perception that the organization is "firm by fair" (Komorita, Hilty and Parks 1991, p.495). Channel operatives possess a predilection toward entering long-term relationships with those who possess such an identity. Such a propitious identity is thought to result as a corollary to the organization' climate.

Organizational climate has typically been portrayed as organizational culture in past research. This may partially explain the limited perspective that has been employed by channel researchers investigating the climate construct. The construct has received limited attention from an interactionalist perspective in the marketing discipline (Reve and Stern 1986; Dwyer and Oh 1987).

In recent years, the construct has received a good deal more attention from organizational development researchers. Smircich and Calas (1987) suggest climate is a multi-faceted construct which can be partitioned into organizational and psychological components. Organizational climate is an internal variable that encompasses a firm's goals, expectations and principles. These concepts jointly reflect the organization's identity and integrity (Denison 1984). Climate has been investigated as an amalgamation of the norms, attitudes, values and behaviors which confer to each channel member's their autonomous characters (Campbell et al. 1970). The organizational component represents a cumulative measure.

By contrast, the psychological component is studied at the individual level. Psychological climate is an "experiential-based, multidimensional and enduring perceptual phenomenon which is widely shared by the members of a given organizational unit" (Koys and DeCotiis 1991, p.265). The construct has proven useful as an adaptive tool which matches individual behaviors to an organizational identity. The eclectic nature of the organizational component makes it difficult to operationalize in actual channel settings. Further, exchange relationships rarely occur at an impersonal

organizational level, especially with respect to the relational context of exchange. On that basis, psychological climate is thought to provide the dominant informative cue for those who are developing channel perceptions.

The psychological climate component has traditionally been measured in terms of four factors: consideration, individual autonomy, leadership styles and reward orientation. However, based on an extensive review of the literature, Koys and DeCotiis (1991) offer a more comprehensive account of the dimensionality of psychological climate (See **Table 1**).

TABLE 1
UNIVERSE OF PSYCHOLOGICAL CLIMATE PRECEPTIONS[1]

Dimension Name	Definition
Autonomy	The perception of self-determination with respect to work procedures, goals and priorities.
Cohesion	The perception of togetherness or sharing within the organization setting, including the willingness of members to provide material aid.
Trust	The perception of freedom to communicate openly with members at higher organizational levels about sensitive or personal issues with the expectation that the integrity of such communications will not be violated.
Pressure	The perception of time demands with respect to task completion and performance standards.
Support	The perception of the tolerance of member behavior by supervisors, including the willingness to let members learn from their mistakes without fear of reprisal.
Recognition	The perception that member contributions to the organization are acknowledged.
Fairness	The perception that organizational practices are equitable and non-arbitrary or capricious.
Innovation	The perception that change and creativity are encouraged, including risk-taking into new areas or areas where the member has little or no prior experience.

[1]From Koys, Daniel J. and Thomas A. DeCotiis. 1991. "Inductive Measures of Psychological Climate," *Human Relations*, 44(3): p. 273.

This enhanced universe of psychological climate perceptions permit substantial insight into the internal channel. Psychological climate is intrinsically associated with the *within* organization channel structure. There is an implied understanding that these psychological climate perceptions refer to the superior/subordinate relationship. This arrangement offers a means of relating the psychological climate to the dyadic interaction. Those who are responsible for channel interface become the organizational identity. Individuals within an organization direct the intensity and direction of role enactments. To the extent that these individuals embody the internal channel climate, the psychological component moderates the symbiotic relationship between channels.

Channel Power

Gaski (1984, p.10) summarizes numerous definitions of power in asserting that power "is the ability to evoke a change in another's behavior." A capacity to influence is typically examined as a function of authority and dependency (Robicheaux and El-Ansary 1975). Authority authenticates the license to influence. Authority presupposes a decree grounded in established in/formal terms that will be recognized by channel members. As a formal contractual imperative of channel interaction, the use of authority is more likely to induce discrete exchange. As firms move toward the relational exchange setting, there is less need to exercise authority because of the emphasis on collaboration. A presumption of formalization solidifies the stability of dyadic interaction.

Dependence is a function of each organization's perception of the necessity to rely on the other member to achieve its own goals. Dependence is generally regarded as a dynamic construct. When dependence is high for only one channel member, there is an inequitable distribution of power. Power conditions are often conceptualized with respect to the degree of symmetry which prevails among channel members. When a perception of symmetrical power between channel members exists, conditions should support on-going relational exchange (Dant and Schul 1992). By contrast, an asymmetrical distribution of power tends to produce discrete exchanges. The effectiveness with which one member imposes its will on another offers insight into where their relationship should be located on the relational exchange continuum (Dwyer, Schurr and Oh 1987).

Frazier and Summers (1984) discuss relational considerations within the context of using interfirm strategies to alter perceptions. The relationalism concept may be used to appropriately describe channel conditions when the interactive behavior in question is related to common goals or to compatible target and source goals. As channel relationships become less transactional, channel members will engage in more cooperative behaviors which inherently allay the use of power. The choice of a mutually supportive or a deleterious conflict resolution mechanism is strongly correlated to the degree of symmetry present between channel members (Dant and Schul 1992).

The norm of reciprocity provides a necessary link between parties involved in an exchange (Macneil 1980). By definition, reciprocity recapitulates the congruence between role enactment and role expectations (see Goffman 1959). The extent to which power is manifested in an exchange relationship is related to each channel member's role expectation of one another's role enactment. Simply stated, how does each channel member expect the other to behave? A channel member's role enactment will be modified based on the reaction from other participants in the exchange (Goffman 1959). Reciprocity serves as a nexus between power and countervailing power (see Gaski's review 1984).

A Triadic Model Of Interaction

The tendency to treat channel conditions as a single, collective effect is inconsistent with the precepts of the political economy framework. A single, collective effect implies that only one behavioral outcome results from dyadic interaction. This is diametrically opposed to the tenets of political economy since some level of interrelatedness between the internal economy and polity is a presumed condition in channel behavior. Interactions between the economic and sociopolitical processes should be examined. Stern and Reve (1980, p.59) suggest the "constellation of a given economic structure with a certain sociopolitical structure within a marketing channel will influence the economic and sociopolitical process which take place." Mohr and Nevin (1990) integrate communication strategy into their investigation of the interaction effects between channel conditions.

Communication theory offers a useful explicatory device for describing the adaptive techniques necessary to maintain channel relationships (Miles et al. 1990). Yet, communication itself is merely a manifestation of the rudimentary norms, values, attitudes and expectations of channel members. Effective communication is a strategic tool (Mohr and Nevin

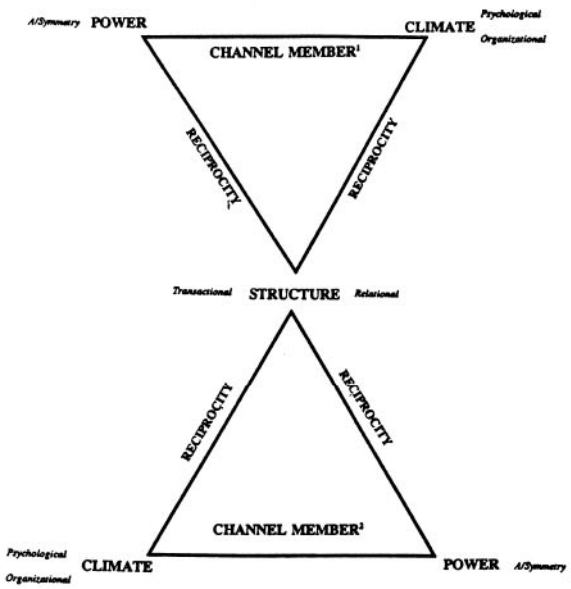
1990). Dess and Origer (1987) describe strategy development as an agglomerative process of consensus-building through efforts at communication which will ultimately lead to a common vision. Such a collective perspective is again contrary to the interactionalist viewpoint. While communication strategy has important normative implications, its descriptive value is circumscribed by the reciprocity of a transaction.

Reciprocity subsumes communication strategy (Komorita, Hilty and Parks 1991). Reciprocity is clearly a condition within individual channels. But, reciprocity is also applicable to *between* channel activity, i.e., the transaction. The relational component of exchange necessitates a higher degree of reciprocity. Macneil (1983, p.374) suggests most "impositions of sovereign values on contracts (exchanges) concern reciprocity." Indeed, reciprocity serves as a salient dimension of cultural progression: the integration of norms, attitudes and activities into an exchange system. Accordingly, it represents a tacit junction between channel climate and structure.

As any channel relationship moves toward the relational context, more altruistic behavior is expected (Macneil 1980). Similarly, in highly relational exchange expectations about trouble tend to be anticipated. The trouble is then countered. Finally, reciprocity has a temporal element. In discrete exchange, there is little concern for the future (Macneil 1980). In relational exchange, the future involves tacitly acknowledged and evolving processes of planning. The norm of reciprocity entails requited initiatives on the part of either channel member.

The triadic model of channel conditions presented in **Figure 1** offers advantages over previous treatments. Specifically, the framework (1) depicts the interaction between structure climate and power; (2) presents reciprocity as a mediator of channel conditions and (3) preserves the idiosyncratic nature of each channel member. Following the tenants of the interactionalist perspective, exchange between channel members is portrayed as a separate function, forming a triadic network. The model addresses those psychological phenomena which influence behavioral outcomes. Psychological climate is positioned as an intervening influence on channel structure and power. The norm of reciprocity is offered as a moderator of all three channel conditions.

FIGURE 1
TRIADIC MODEL OF CHANNEL CONDITIONS



Commentary And Future Research Issues

The increasingly multi-disciplinary approach to descriptive channels research has induced a departure from some fundamental elements of channels research. There has been a reemergence of monadic and/or collective research perspectives among those addressing channel conditions as mechanisms of conflict resolution. This is worrisome given the concurrent acceptance of relationalism as an explanatory model of exchange governance structures.

Relational exchange theory offers an explanatory paradigm of channel structure that is predicated on the integration of idiosyncratic norms, attitudes, values and behaviors. Relational exchange theory reaffirms Pennington's seminal interactionalist perspective. Within the context of values arena in the contracts universe, Macneil (1983, p.342) notes that the norms expounded within the theory included values reflected in the goals and means of people engaged in contract behavior (these are virtually inseparable from the first)."

The triadic model of channel conditions provides more than just a reminder that the interactionalist perspective of exchange is alive and well. The model also initiates a digaggregative view of channel conditions which are amenable to empirical testing. The quasi-ritualized nature of channel role behavior provides an opportunity to investigate the structure and content of interacting roles apart from the specific individuals occupying the roles. The reductionistic refinement of these conditions as portrayed in the model could provide some motivation to more fully investigate the role of exchange values. The model also introduces reciprocity as a moderator of channel conditions.

Several research issues emerge from this model. First, how does reciprocity moderate the propensity for relational exchange? How does reciprocity (via role expectations) stimulate the transformation from *within* channel conditions to *between* channel conditions? In addi-

tion, the relationship between the respective components of channel conditions and channel outcomes (i.e. performance and satisfaction) could be investigated. The interactionalist perspective could stimulate progress toward refinement of a nomological theory of channel behavior.

In the spirit of promoting fruitful outcomes to academic exchange relationship, we refer to Macneil (1983, p.343): "It is just possible that such instances will provide opportunities for small contractual relations providing reasonably well-served - not just barely served - common contract norms for some people."

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EXPLORING THE CHARACTERISTICS OF A SALESPERSON SOCIAL SCHEMA

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Abstract

This paper represents an initial study into the effects of consumers' cognitive representation of the social category "salesperson." The two studies describe in some detail the contents of the "car salesperson" social stereotype and provide an initial test of the ability of certain salesperson characteristics to activate this stereotype. More specifically, study 2 shows how certain salesperson characteristics can affect the perceived "typicalness" of a salesperson. Implications for salespeople and future research are also discussed.

Introduction

The concept of social schemata has been widely used in the psychology literature to explain how people organize knowledge about prototypical members of groups (see Hamilton 1981 for a review). More specifically, social schemata have been shown to influence various cognitive functions, such as the attribution of common traits and behaviors to a particular individual (Holland et al. 1989). However, very little is know about the effects of social schemata on consumer decision making.

For example, does a pervasive social schema, or stereotype, exist for the category "salesperson" and, if so, does it affect consumer attitudes and behavior? The purpose of this paper is to describe a series of studies investigating the first of these two issues. The first study describes the potential contents of a salesperson schema and the second study attempts to show how this schema can be activated in a common consumer situation.

Background

Social stereotypes have been defined as "widely shared assumptions about certain types of people that are represented cognitively as extensive, well-organized categories or schemata" (Anderson, Klatzky, and Murray 1990, p. 192). They are best understood in the context of network models of human knowledge representation (e.g., Holland, Holyoak, Nisbett, and Thaggard 1989). That is, social schemata organize our knowledge and thinking about members of various groups. For example, knowing that one is a "lawyer" allows us some accuracy in conjecturing his/her educational background (Mason 1965) as well as other traits and behaviors. Previous research has shown that people often rely on stereotypes when making judgments about prototypical members of racial groups (Allport 1954; Gilbert and Hixon 1991), social groups such as "rednecks" and "hunks" (Fiske 1982), political groups (Anderson et al. 1990), and along gender lines (Hoffman and Hurst 1990).

A number of previous studies suggest that the concept "salesperson" evokes a common stereotype across consumers. For example, occupation has been listed as a primary categorical basis leading to formation and activation of a social stereotype (Anderson and Klatzky 1987). Or put differently, the social standing of salespeople has been said to suffer from a number of commonly held negative beliefs about salespeople in general (Adkins and Swan 1981). In part, the low prestige of the sales profession may be a result of the stereotypical view with which most consumers hold salespeople, and, which is enforced through the common portrayal of salespeople in jokes, movies, and literature (Thompson 1972).

In one of the few empirical studies investigating the effects of a salesperson schema, Sujan, Bettman, and Sujan (1986) have shown that the "typicalness" of a salesperson can influence the type and amount of information processed by a consumer during a sales encounter. However, their study did not fully develop the contents of a salesperson social schema, nor do they demonstrate evidence of the pervasiveness of such a schema or the types of cues which lead to its activation. Further, since a typical salesperson stereotype is likely to evoke a significant amount of negative affect (Fiske 1982; Sujan et al. 1986), ways of overcoming the effects of the schema would be useful.

Based on the evidence presented above, there are two basic issues addressed in this study. First, can the contents of a salesperson social schema or stereotype be described in some detailed fashion? Second, can the typicalness of a salesperson be overcome by altering the characteristics that comprise the stereotype? In addition, the study outlines a methodology useful in examining issues related to consumer schemata.

STUDY 1

Method

The sample for study one was made up of 47 students at a large southern university. They responded to two free-elicitation questions asking them to describe a car salesperson's (1) general characteristics and (2) appearance. In addition, a third set of scaled response questions were made up of items designed to determine which traits and actions might best describe a car salesperson. A time-constraint for completion of the questionnaire was placed on the students to try to insure that responses were based on stereotypes and not one specific salesperson description from a

respondent's memory (Rime, Philippot, and Cisamolo 1990). In addition, instructions clearly specified that the person was to describe a "typical" car salesperson.

The category of car salesperson was chosen for this study for several reasons. First, a majority of the individuals of the population from which the sample was drawn indicated that they had prior experience shopping for an automobile. Second, focus group interviews supported the view that consumers have strong opinions about car salespeople.

Results

Open-Ended Responses. Frequency counts of each response category were generated to assess the acts and states most characteristic of the category "salesperson." With respect to generally salient car salesperson characteristics, a total of 23 different response categories were listed by at least two respondents. The majority of these categories could best be described as "overt behaviors" or "invisible trait-characteristics" (Anderson and Klatzky 1987).

Table 1 shows the five response categories obtained most often. No other category was mentioned by more than 3 respondents. Thus, these appear to be the most salient general elements of the car salesperson schema. The term most often coming to mind across respondents was "pushy." Over half of all respondents (27) listed pushy as a term that describes a car salesperson. In addition, "pushy" was listed as the most salient term more often (17%) than any other response category. Other response categories appearing often include "aggressive," "fake," "talkative," and "obnoxious."

TABLE 1
FREQUENCY OF OPEN-ENDED RESPONSE CATEGORIES

General Characteristics		General Appearance	
Category	Frequency (%)	Category	Frequency (%)
Pushy	57	Tacky Dresser	23
Aggressive	32	Business Suit	17
Fake	30	Overweight	17
Talkative	19	Sloppy Tie	15
Obnoxious	19	Smokes	13

Frequency counts also were made of the response categories obtained by asking respondents to describe how a car salesperson looks. A total of 20 response categories were listed by two or more respondents. Of these, those occurring more often than three times are listed in Table 1.

According to this sample, the most common appearance characteristic of a car salesperson is being a "tacky dresser." Twenty-three percent (11 of 47) of respondents listed this in some form. Variations of this category include: "cheap suit," "no jacket," and "loud shoes." The response category obtained second most often is labeled "business suit." Variations of this include "coat and tie" and "well-dressed." Other categories mentioned most often include "overweight," "sloppy tie," and "smokes."

Quantitative Responses. In a further effort to discover the characteristics most associated with the car salesman social schema, means and standard deviations for each of the 37 characteristics (0="Does not apply at all" to 9="Applies extremely well") were computed. Following Anderson and Klatzky (1987), a conservative rule for finding the most associated characteristics (MACs) is to include those characteristics exceeding the mean value of the scale by at least one standard deviation. Table 2 lists nine characteristics meeting this criterion.

In addition to meeting the criteria for a MAC, these nine items were rated more consistently across respondents than were other items. The average standard deviation for these nine items is 1.83. The average standard deviation for the remaining items is considerably higher at 2.30. Thus, there appears to be a relatively high level of agreement concerning how applicable these particular characteristics are to the category "car salesperson."

Discussion

The results of this preliminary study indicate the states and actions which are most likely to represent a typical car salesperson social schema for this sample. Open-ended responses were used to show that a number of characteristics could be elicited consistently across a sample of consumers exposed to the concept of car salesperson. Considering that respondents were not confined to any set of descriptors, the frequency of occurrence of items like "pushy" provide solid evidence that they are an integral part of the schema. Similarly,

TABLE 2
MEAN SCORES FOR THE MOST APPLICABLE CHARACTERISTICS

Characteristics	Mean	Standard Deviation
1. is a man	7.2	1.8
2. has a loud voice	6.7	1.8
3. wears a tie	6.9	1.9
4. walks quickly	6.2	2.1
5. shakes my hand	7.2	1.9
6. speaks only when spoken to*	8.0	1.2
7. is shy*	7.0	1.9
8. is self-confident	6.5	1.9
9. tries to give the impression of being honest	6.3	2.0

* Reverse scored

responses to a structured series of potential salesperson characteristics reveals a slightly more detailed look at the schema's contents. The characteristics which would comprise a car salesperson schema are listed in **Tables 1** and **2**.

The results of this sample appear to be consistent with previous research suggesting generally held negative beliefs concerning salespeople across all consumers (Adkins and Swan 1981). Given that affect associated with a stereotype can bias information processed in association with the stereotype (Fiske 1982), it would be useful to know if a salesperson schemata can be activated in a common consumer situation, and if so, can its effects be overcome. From the standpoint of research into social schemata, it would also be useful to explore various methods of manipulating activation of social schemata. It was with this in mind that study 2 was carried out.

STUDY 2

Method

Three scenarios representing a common consumer situation were developed. The scenario places the subject in the position of a consumer in the early stages of shopping for a car. It describes a visit to a retail showroom to see a specific car model. A fictitious car model and dealership name were used to lessen the potential for a halo effect. The description of the car and dealership remained constant across each scenario. In fact, the three scenarios differed only in the description of the salesperson encountered during the visit.

The descriptions were altered in an effort to produce three levels of typicality. Two levels were constructed consistent with the stereotype (one extreme and one moderate) and one level was constructed to be atypical. Study 1 provided some general and specific characteristics helpful in constructing these descriptions. However, some of the traits revealed in open-ended responses proved somewhat trouble-some. For example, we did not wish to describe the salesperson as "pushy" or "obnoxious." To increase realism, we wished to describe only visible and audible characteristics of the salesperson. Therefore, a focus group interview was conducted with a convenience sample of six consumers to follow up on these earlier findings. Mainly, respondents were asked to explain in detail how they knew a salesperson was being "pushy," "fake," "obnoxious," etc. Using these responses, more tangible indicators of these invisible traits were obtained.

Thus, the three descriptions varied with respect to characteristics such as the greeting given to the customer upon arriving at the car lot, the way he spoke and walked, the way the salesperson was dressed, his response to questions, etc. For example, in the description hypothesized as being most typical, as the customer leaves the dealership the salesperson concludes with, "[i]f you leave now I won't be able to get you as good of a deal tomorrow." Conversely, in the description hypothesized to be atypical (to override the stereotype), the salesperson concludes with "[f]eel free to come back if there is anything I can help you with."

Using these descriptions as 3 treatment levels, an experiment was conducted to examine the extent to which each of these descriptions evoked a salesperson schema among subjects. A sample of 122 students (juniors and seniors) from a large, urban, southeastern university were used as subjects in the experiment. Over 90 percent of the sample listed having at least "some" experience in shopping for cars. Subjects were reminded of the high percentage of recent college graduates purchasing new cars. In addition, subjects were given course credit for their participation.

During the experimental session, subjects were randomly assigned to one of the three levels described above. After reading the scenario subjects responded to a number of items. Among these were four Likert items designed to measure how well the salesperson in the scenario fit their social schema for a car salesperson. These items appear to reliably measure **typicality** as indicated by coefficient a (.96) and thus were summed to produce a "typicalness" scale. In addition, subjects responded to items eliciting their recall of facts concerning the car and salesperson described. These items were useful in assessing the extent to which the subjects processed the information provided. No subjects displayed a total lack of recall and thus they appear to have participated in ernest. In addition, subjects responded to one item measures assessing how **pushy, obnoxious**, and **aggressive** the salesperson in the scenario seemed. Since these traits were not directly manipulated, these items could help in determining if the observable behaviors described in the scenario are indicative of these traits. After completing the experiment, subjects were debriefed and dismissed.

Results

Univariate analysis of variance was used to examine the extent to which subjects' car salesperson schema's were activated by each of the three scenarios. **Table 3** shows the mean **typicalness** scores for each level of the experimental variable. The overall univariate model indicates that the three experimental levels strongly predicts typicalness ($F = 163.4_{2,118}$; $p < .0001$). Further, each pairwise comparison is significant as indicated by Bonferroni's t test indicating that the scenarios were significant in eliciting three different levels of typicalness.

As expected, the atypical level (3) received a much lower typicalness score than did the other two levels. The mean level of 7.8 (possible scale ranges were from a minimum of 4 to a maximum of 20) for this level indicates that the majority of subjects either disagreed, or strongly disagreed, that this description fit their

TABLE 3
MEAN SCORES BY EXPERIMENTAL LEVEL

	Dependent Variable			
Level	Typicalness	Pushy	Aggressive	Obnoxious
1 (Typical)	19.0	3.9	3.7	3.8
2 (Extreme)	17.7	4.5	4.2	4.4
3 (Atypical)	7.8	1.1	1.1	1.1

stereotype of a car salesperson. With respect to the other levels, the moderately typical level received higher typicalness ratings (19.0) than did the extreme stereotype level (17.7). However, the means indicate that for either of these two conditions, subjects generally expressed strong levels of agreement that the salesperson described was prototypical of their car salesperson schema or stereotype.

Finally, because of the salience of **pushiness**, **aggressiveness**, and **obnoxiousness** to the car salesperson schema as revealed in Study 1, a check on the ability of the experimental levels to effect ratings of these characteristics was carried out as well. Table 3 also contains the mean scores for each of these variables by experimental level. First, the multivariate F resulting from a MANOVA predicting each of these variables ($F = 58.69_{6,232}$; $p < .0001$), as well as each individual univariate F was highly significant ($p < .0001$). Second, each of the pairwise comparisons is significant as well. Again, the difference between the atypical level and either of the two typical levels is most extreme. While the atypical level produced generally strong levels of disagreement that the salesperson was pushy, aggressive, or obnoxious, both of the other two levels produced general agreement concerning these characteristics. Thus, the observable behaviors included appear to significantly influence consumer attributions of these three traits as well.

Discussion

The results of this study indicate that salesperson characteristics can activate a consumer's salesperson schema to varying degrees. While the level hypothesized as atypical clearly achieved its goal, the findings for the other two levels indicate that a salesperson's characteristics need not be too extreme to activate the schema within a consumer.

A direct implication of this finding concerns various steps salespeople might take to avoid activation of the schema. For example, the way a customer is greeted and thanked for his/her patronage can influence how typical a salesperson is viewed. Other behaviors that could influence how typical a salesperson is viewed might include his/her smoking habits, his/her weight, and his/her manner of dress.

Other variables not included here might also affect typicality. For example, gender may have an effect on how typical a salesperson is viewed (Cook and Corey 1991). This question would bring up some interesting issues concerning which schema is most easily activated (gender or occupation) and which has the greatest effect on consumer information processing. In addition, the method employed here might prove useful in future research investigating the effects of social schemata in various marketing situations; what are the effects of manipulating typicalness on other marketing related variables? The following section lists some more general implications and suggest avenues for further research on consumer schemata.

Implications and Future Research

The current study supports the existence of social stereotypes within a consumers cognitive frame of reference in regards to car salespeople. This finding suggests that stereotypes may exist for other types of salespeople as well. Thus, salespeople in general, and car salespeople in particular, may need to take positive action to avoid being "categorized" negatively. Such a step requires knowledge of what consumers expect in a given sales setting, how they view specific categories of salespeople, and how a salesperson can exceed their expectations in a positive fashion. By doing this, a salesperson may overcome any pre-existing negative stereotype and create an atmosphere more open to clear communication of product and company strengths and advantages for the customer.

Avenues for future research exist in several areas. First, additional research should address consumer views on other "sales stereotypes". For instance, how are computer salespeople, insurance agents, and real estate agents viewed by their clients, and what attributes/actions lead to those views. Another area for further research might involve the effect of individual difference variables on schema-based effects. Are there consumer traits which make them more or less susceptible to influences on his/her decision making due to activation of the salesperson stereotype? For example, does a person's processing style influence these effects? It might be expected that a consumer operating under a high degree of elaboration (involvement) would be less affected by a salesperson schema than would other consumers. Third, more work is needed to define precisely the biases due to activation of the salesperson stereotype. What are the effects on attitudes, intentions, environment-based emotions and consequently, evaluations of the product? Fourth, various attributes of consumer salespeople could be manipulated in role-playing scenarios to determine the effects of a different appearance or atypical actions on the likelihood of a sale occurring. That is, does the activation of a stereotype mediate relationships between physical characteristics and traits and sales performance? Finally, research examining industrial salespeople may be called for to determine if they are subject to the same negative bias that applies to

consumer goods salespeople, such as the automobile salesperson.

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ANTECEDENTS OF INVOLVEMENT AND PERCEIVED PURCHASE RISK: BETTER UNDERSTANDING THE CONSUMER INVOLVEMENT PROFILE

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Abstract

Components of Laurent and Kapferer's Consumer Involvement Profile were examined as antecedents of purchase decision involvement. Specifically, the researchers posited that risk importance mediates the relationship between involvement antecedents (sign, pleasure, interest) and purchase decision involvement. The results support this proposition. Implications of the present research include the need to develop a more complete model of the antecedent processes influencing purchase decision involvement as this would extend our understanding of this important buyer behavior variable.

In 1985 Laurent and Kapferer identified several major antecedents of involvement with products and purchases. At that time, they introduced a scale to measure these antecedents of involvement which they titled the Consumer Involvement Profile (CIP). It was one of two major scales introduced in 1985 to measure involvement. The other was the Personal Involvement Inventory (PII, Zaichkowsky 1985).

The PII was designed to measure the "personal relevance" of a product, purchase decision or advertisement. Personal relevance was thought to be unidimensional and the simple composite of the scale items represented a person's involvement score. The CIP, however, was based on the idea that involvement or at least the antecedents of involvement were multidimensional. The CIP was originally composed of items intended to measure risk probability, risk importance, sign (the symbolic value of a product), pleasure, and product importance.

Since the introduction of the CIP and PII scales, there has been considerable debate as to whether involvement is undimensional or multidimensional, how involvement should be defined, and how the two major scales could be improved or even combined (Andrews, Durvasula, and Akhter 1990; Jain and Srinivasan 1990; McQuarrie and Munson 1986; Mittal 1989b). In a review of these issues Mittal (1989b) stated that the dimensionality of involvement is essentially a theoretical question which cannot be resolved by empirical studies employing factor analyses of existing scales. He maintains that existing literature (Bloch 1982; Cohen 1983; Greenwald and Leavitt 1984; Mitchell 1979,1981; Park and Mittal 1985; Petty, Cacioppo, and Schumann 1983; Zaichkowsky 1985) supports the idea that involvement is a unidimensional concept corresponding roughly to an "activated motivational state" brought about by a stimulus which is relevant to a person's psychosocial or utilitarian goals. A recent review of the involvement literature by Andrews, Durvasula and Akhter (1990) comes to a similar conclusion and suggests that involvement with products should be measured with unidimensional scales which contain items which capture "slightly different shades of meaning of involvement."

While work on the definition and measurement of involvement has progressed (and seems to favor a unidimensional involvement construct) there is a danger that the potentially meaningful antecedents of involvement identified by Laurent and Kapferer (1985, Kapferer and Laurent 1985/1986) may be overlooked as explanators of involvement processes. This would be unfortunate given that research which would help to understand involvement processes is particularly needed at the current time (Muncy 1990).

A related area of research which is also relatively neglected is the study of purchase decision involvement as opposed to product involvement. Purchase decision involvement is different from product involvement which is concerned with the enduring relevance of a product category to an individual's life. Mittal (1989a) has defined involvement with a purchase decision as the "degree of interest and concern that a consumer brings to bear upon a purchase decision task."(p. 150) He states that purchase decision involvement as opposed to product involvement is probably the more important influence on marketing strategy because "marketing practitioners are interested in differentiating in the consumer mind their brand from competing brands and in consumers bringing to the purchase task a posture of concern and caring."(p. 161)

Research Objective

Given the importance of purchase decision involvement and the need to understand the antecedent processes which cause it to occur, the purpose of this research is to develop and test an exploratory model which specifies relationships between the Laurent and Kapferer antecedents of consumer involvement and purchase decision involvement.

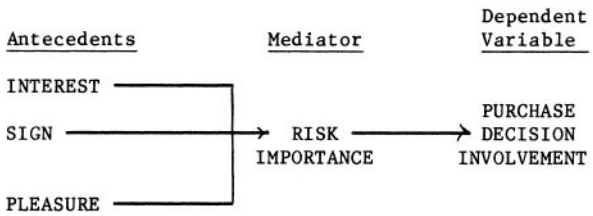
Mittal (1989a) states that the risk components of Laurent and Kapferer's CIP should be antecedents of purchase decision involvement. The other three factors of the CIP (as revised by Kapferer and Laurent 1985/1986) pleasure, sign, and interest should all increase the importance of a product to an individual and therefore increase the amount at risk when a purchase decision is being made. These factors should not, however, increase the risk probability (probability of making a wrong choice) associated with a purchase decision. In fact, Venkatraman (1990) presents evidence suggesting that enduring product involvement (with which pleasure, interest and sign should be associated, Mittal 1989a) increases consumers' abilities to handle the risks associated with purchase decisions. Because pleasure, interest and sign are expected to influence purchase decision involvement

through risk importance rather than risk probability this study concentrates on the mediating role played by risk importance.

Risk importance is conceptually different from purchase involvement and is probably only one cause of purchase decision involvement. Other possible causes could include the probability of making an error (risk probability, Laurent and Kapferer 1985) and personal factors such as the enjoyment of shopping (Bellenger and Korgaonkar 1978) or market mavenism (Feick and Price 1987).

It is proposed that risk importance mediates the relationship between the involvement antecedents and purchase decision involvement (see **Figure 1**). It is important to note that, although quite different, moderating relationships are often confused with mediating relationships (Baron and Kenny 1986).

FIGURE 1
PROPOSED RELATIONSHIPS BETWEEN INVOLVEMENT PROFILE VARIABLES & PURCHASE DECISION INVOLVEMENT



A variable which is a moderator affects the form and/or strength of the relationship between an independent variable and a dependent variable. As such, independent-dependent variable relationships might change as a function of a moderator variable. In contrast, a variable which is a mediator serves as a mechanism through which an independent variable operates to influence a dependent variable (Baron and Kenny 1986). In a mediating relationship, the independent variable is thought to influence the mediator which then influences the dependent variable.

Thus, the proposition to be examined in this study is that the pleasure, sign and interest components of the CIP (independent variables) influence risk importance (mediator) which influences purchase decision involvement (dependent variable). Specifically the following hypothesis is tested.

H1: Risk importance mediates the relationship between purchase decision involvement and the pleasure, sign and interest components of the CIP scale.

Method

Subjects and Procedure

The sample consisted of 111 undergraduate business students at a large midwestern university. All subjects were provided with a questionnaire packet containing measures of antecedents of involvement, risk importance, and purchase decision involvement related to four product categories: calculators, candy bars, aspirin, and perfume (for females) or cologne (for males). The product categories were relevant to the student sample and varied substantially across the variables of interest (see **Table 2**).

Measures

Involvement antecedents were assessed via three subscales of the Laurent and Kapferer (1985; Kapferer and Laurent 1985/1986) involvement profile. The three subscales utilized for this study included: interest - the perceived importance of the product class ("What (product) I buy is extremely important to me."; "I'm really very interested in (product)."; "I couldn't care less about (product)."); sign - the symbolic value attributed to the product class ("You can tell a lot about a person from the (product) he or she buys."; "The (product) a person buys, says something about who they are."; "The (product) I buy reflects the sort of person I am."); and pleasure - the perceived hedonic value of the product class ("I really enjoy buying (product)."; "Whenever I buy (product), it's like giving myself a present."; "I take a certain pleasure in (product)."). Items were scaled strongly disagree (1) to strongly agree (5), and reverse scored where appropriate. The three items for each subscale were summed to form interest, sign, and pleasure antecedent scores for each product category.

Risk importance, the perceived importance of negative consequences associated with mispurchase, was also measured via an involvement profile subscale ("Making a mistake isn't too serious when buying (product)."; "It's very irritating to buy (product) which isn't right."; "I should be very annoyed with myself, if it turned out I made the wrong choice when buying (product)."") (Laurent and Kapferer 1985; Kapferer and Laurent 1985/1986). As with involvement antecedents, items were scaled strongly disagree (1) to strongly agree (5) and were reverse scored where necessary, and summed to form risk importance scores for each product category.

Purchase decision involvement, the degree of involvement in the purchase decision for a product ("Very unimportant/Very important decision"; "Decision requires little thought/a lot of thought"), was assessed by summing two, seven-point semantic differential-like items adapted from Ratchford (1987). Of note is the fact that Ratchford (1987) reported a three item version of level of involvement in the purchase decision, however, one item ("A lot to lose/Little to lose if you choose the wrong brand") was severely confounded with the risk importance measure and was thus eliminated from subsequent use in this study.

Results

Internal Consistency Estimates

Cronbach's (1951) coefficient alpha was used to assess the internal consistency of the multiple

item measures used in the study. Table 1 presents reliability estimates for measures across product categories. Overall, the internal reliability estimates are quite consistent with those reported by Laurent and Kapferer (1985) as well as Ratchford (1987), and compare favorably to reliabilities reported in the marketing literature (Peter 1979).

Descriptive Analysis

Means and standard deviations for the measures considered in the present study are presented in Table 2. Intuitively, mean scores for the involvement profiles (subscales) and purchase decision involvement appear to make sense. Given the highly personal nature of perfume/cologne to our audience, it would seem to have quite involving properties. Indeed, this product was rated relatively higher across the various antecedent measures than any other product.

Of the remaining three products, the college students rated calculators as more interesting, possessing more symbolic value, involving more risk, and being a more important purchase decision than aspirin or candy bars. Not surprisingly, candy bars were perceived as much more pleasurable to the college students (10.06) than calculators (6.89) and aspirin (4.76). Therefore, it appears that the measures utilized in this study possess some degree of face validity.

Regression Analyses

In order to establish that risk importance mediates the effect of the involvement antecedents on purchase decision involvement, the following three conditions must be met: 1. Each antecedent (interest, sign, and pleasure) should have a significant effect on risk importance. 2. Each antecedent should also have a significant effect on purchase decision involvement. 3. As compared to condition 2, the impact of the antecedents on purchase decision involvement should be diminished when risk importance is included with them in regressions predicting purchase decision involvement (Baron and Kenny 1986).

The above conditions are examined separately for each of the four product categories using multiple regression analysis. Results are reported in Table 3. As such, risk importance is regressed against each antecedent (condition 1). Next, purchase decision involvement is regressed against each antecedent and risk importance, entered in stepwise fashion (conditions 2 and 3). As can be seen in Table 3 condition 1 has been strongly supported as 11 out of 12 regression equations suggested that the involvement antecedents significantly effect risk importance. The one case where this did not hold was for the sign variable for the product class candy bars ($p>.05$).

As shown in Table 3, condition 2 was also strongly supported as again 11 out of the 12 supported as again 11 out of the 12 regression

TABLE 1
RELIABILITY COEFFICIENTS OF MEASURES ACROSS PRODUCT CATEGORIES

Measure	Product Category: Aspirin	Candy Bar	Calculator	Perfume/Cologne
Interest	.74	.82	.72	.78
Sign	.93	.95	.95	.92
Pleasure	.71	.87	.86	.86
Risk Importance	.87	.76	.77	.73
Purchase Decision Involvement	.75	.73	.75	.56

TABLE 2
DESCRIPTIVE ANALYSES OF RESEARCH VARIABLES

Research Variable	Product Category: Aspirin Mean	Aspirin Std Dev	Candy Bar Mean	Candy Bar Std Dev	Calculator Mean	Calculator Std Dev	Perfume/Cologne Mean	Perfume/Cologne Std Dev
Interest	5.50	2.07	5.24	2.28	6.14	1.86	7.91	1.89
Sign	4.92	2.69	6.28	3.15	6.57	3.41	12.73	2.45
Pleasure	4.76	2.11	10.06	3.46	6.89	2.79	12.26	2.74
Risk Importance	9.46	3.77	6.56	3.02	9.71	2.90	11.78	2.60
Purchase Decision Involvement	8.26	3.40	5.17	2.97	8.46	2.75	10.37	2.48

equations indicated that the involvement antecedents had a significant effect on purchase decision involvement. As in the previous instance, the sign variable had an insignificant effect on purchase decision involvement for candy bars ($p>.05$).

Lastly, condition three is met in all cases. As expected, the influence of interest, sign, and pleasure on purchase decision involvement was lessened when risk importance was also considered. As can be seen by **Table 3**, the largest overall impact of risk importance's mediation of the effects of interest, sign, and pleasure on purchase decision involvement was for the product class aspirin, followed by calculators.

Risk importance also appears to have quite a noticeable mediating effect on the impact of interest and pleasure on purchase decision involvement for candy bars. The regression coefficient for sign on purchase decision involvement did drop with the presence of risk importance in the equation; however, insignificant regression coefficients for the sign variable on risk importance and purchase decision involvement (conditions 1 and 2) would make conclusions regarding relationships somewhat tenuous.

Finally, it appears that the overall mediating effects of risk importance on the relationships between interest, sign, and pleasure on purchase decision involvement for perfume/cologne were not as dramatic as for the other product categories. However, the regression coefficients for pleasure, sign, and interest decreased as expected (see **Table 3**).

DISCUSSION

The objective of this study was to examine the proposition that risk importance mediates the relationship between interest, pleasure, and sign components of the CIP and purchase decision involvement. Overall, for the product categories examined in this research, the results of the regression analyses provide support for the proposed mediating relationships.

Of note are the findings that, for candy bars, the sign antecedent was not found to be significantly related to risk importance (condition 1) or purchase decision involvement (condition 2). These findings may not be particularly surprising as they may reflect a product-specific effect. That is, for our sample, candy bars possessed minimal symbolic value, which resulted in statistically insignificant relationships of this variable with risk importance and purchase decision involvement. In fact, Laurent and Kapferer (1985) have noted that, depending on the product, consumer segments can be high on some facets and low on others and that some facets are likely to influence certain behaviors and not others. Further, it is interesting to note that the mediating effects of risk importance were stronger for more "utilitarian" types of products (aspirin, calculators) than for the more "value-expressive" perfume/cologne category. Although thought provoking, these findings must be viewed in light of extant limitations of the study.

Limitations and Future Directions

Given the exploratory nature of the study, the authors' view the four product categories utilized (aspirin, calculators, candy bars, and perfume/cologne) as representing a reasonable range of product "types." Further, these categories would appear to be appropriate for the student sample. However, it is recognized that future research should incorporate additional product categories as well as nonstudent samples.

Another important role of future research in this area would be to explore the influence of other potential antecedents of purchase decision involvement and develop an overall model of the antecedent processes which create purchase decision involvement. It is likely that interest, sign and pleasure contribute to an overall feeling of product involvement (Mittal 1989a) which influences risk importance and purchase decision involvement. Furthermore, risk probability as well as risk importance is likely to influence purchase decision involvement. Additional theoretical and empirical work is required to fully understand these relationships.

In conclusion, this study is a "first step" in the examination of relationships between the antecedent of involvement measured by the CIP and purchase decision involvement. Research in this area stands to contribute to our understanding of the antecedent processes among variables which influence a significant consumer marketing construct - purchase decision involvement.

TABLE 3
TESTING THE MEDIATING ROLE OF RISK IMPORTANCE (RI)
ON PURCHASE DECISION INVOLVEMENT (PDI) BY PRODUCT CATEGORY

Product Category		R^2	F Value
ASPIRIN	I. RI mediates the effect of INTEREST on PDI		
	RI = (.96) Interest	.28	41.72**
	PDI = (.86) Interest	.27	39.34**
	PDI = (.35) Interest + (.50) RI	.49	50.51**
	II. RI mediates the effect of SIGN on PDI		
	RI = (.44) Sign	.10	11.65**
	PDI = (.49) Sign	.15	18.85**
	PDI = (.23) Sign + (.55) RI	.49	50.06**
	III. RI mediates the effect of PLEASURE on PDI		
	RI = (.80) Pleasure	.20	27.37**
	PDI = (.58) Pleasure	.13	16.06**
	PDI = (.07) Pleasure + (.61) RI	.46	89.47**
CANDY BAR	I. RI mediates the effect of INTEREST on PDI		
	RI = (.66) Interest	.24	35.02**
	PDI = (.67) Interest	.26	38.58**
	PDI = (.47) Interest + (.30) RI	.34	27.04**
	II. RI mediates the effect of SIGN on PDI		
	RI = (.11) Sign	.01	1.55
	PDI = (.18) Sign	.03	3.91
	PDI = (.13) Sign + (.48) RI	.24	33.75**
	III. RI mediates the effect of PLEASURE on PDI		
	RI = (.42) Pleasure	.23	32.26**
	PDI = (.35) Pleasure	.17	21.79**
	PDI = (.20) Pleasure + (.37) RI	.28	20.68**
CALCULATOR	I. RI mediates the effect of INTEREST on PDI		
	RI = (.61) Interest	.15	19.80**
	PDI = (.74) Interest	.25	35.88**
	PDI = (.51) Interest + (.37) RI	.38	32.56**
	II. RI mediates the effect of SIGN on PDI		
	RI = (.34) Sign	.16	20.35**
	PDI = (.39) Sign	.24	32.59**
	PDI = (.27) Sign + (.37) RI	.37	30.23**
	III. RI mediates the effect of PLEASURE on PDI		
	RI = (.46) Pleasure	.19	25.92**
	PDI = (.46) Pleasure	.22	29.86**
	PDI = (.29) Pleasure + (.38) RI	.35	28.19**
PERFUME/ COLOGNE	I. RI mediates the effect of INTEREST on PDI		
	RI = (.55) Interest	.16	20.35**
	PDI = (.78) Interest	.35	56.95**
	PDI = (.68) Interest + (.18) RI	.38	32.08**
	II. RI mediates the effect of SIGN on PDI		
	RI = (.22) Sign	.04	4.95*
	PDI = (.27) Sign	.07	8.21**
	PDI = (.20) Sign + (.33) RI	.19	12.29**
	III. RI mediates the effect of PLEASURE on PDI		
	RI = (.35) Pleasure	.13	16.78**
	PDI = (.52) Pleasure	.33	52.09**
	PDI = (.45) Pleasure + (.20) RI	.36	30.48**

* F-value significant at $p \leq .05$.
** F-value significant at $p \leq .01$.
NOTE: Standardized beta weights are indicated in parentheses.

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RESTRUCTURING: A PROCESS FOR CONSTRUCTING REPRESENTATIONS FOR CHOICE

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Abstract

Consumers seldom make product choices in situations in which information is provided in a representation designed to facilitate choices of good quality with comfortable levels of effort investment. As a result, consumers may often construct multiple representations to facilitate making choices. A framework for dynamic restructuring is presented which describes why, when, and how consumers might restructure information displays over the course of a decision in order to make a choice. The framework incorporates an effort/accuracy approach to develop predictions about restructuring.

Introduction

Research in behavioral decision making has demonstrated that consumers often select among a repertoire of strategies to make a choice from among a set of options (e.g., brands or products) (Billings and Marcus 1983; Creyer, Bettman and Payne 1990; Payne, Bettman and Johnson 1988). The selection process is usually described in terms of the tradeoffs consumers make between the effort required to use a particular heuristic and the potential accuracy, or choice quality, that can be obtained by the heuristic. This conceptualization suggests that choice behavior is top-down; that is, the consumer knows and applies a heuristic that is appropriate for the displayed information. This theory has two primary limitations. First, the information available in real-world decisions is often not in an ideal form, one appropriate for heuristic execution. In addition, the consumer may not be able to retrieve a heuristic from memory. In both of these situations the consumer may be faced with the task of constructing a representation, based on the available information, that will facilitate making a choice or developing a heuristic.

The theory presented in this paper describes restructuring, a process by which consumers construct representations of choice problems. Restructuring is defined as the application of one or more operations, such as eliminating redundant information or standardizing information, to a set of information which results in a new problem representation. Restructuring to generate representations is a dynamic process; multiple representations may be constructed prior to choice. Because information displays can affect the information a consumer acquires (Bettman and Kakkar 1977), and the information a consumer remembers (Biehal and Chakravarti 1982), and uses to make a choice (Biehal and Chakravarti 1986), the restructuring processes used to construct information representations are an influential component of the choice process.

Consider the following scenario, which illustrates restructuring.

> Imagine that you want to buy a personal computer. After reading Consumer Reports, talking with friends who own computers, and paying attention to computer-related articles and news, you conclude that there are several features a computer absolutely must have before you would buy it. The information you have acquired is technically complex and unfamiliar, so you write it down.
>
> In the computer store, you look at several models, compare the offered features with the ones on your list, and cross out the models that are worse than the others. This reduces the amount of information you must consider. Several features on your original list seem to be standard options with similar values. By crossing those features off your to-be-considered list, you make your decision less effortful. Looking at your notes you realize that comparisons between models would be much easier if you could standardize the available information. With pencil and paper you calculate the cost per megabyte of memory and list those costs in a single column beside the list of models. Now you can scan a single attribute instead of trying to balance values on two attributes. In the next store, you are able to cross a couple of models off your list because they are offered at a lower price in the current store. You begin to feel more confident that you will make a good choice, and you head for the next store.

In this example, the consumer constructs several representations which contain the available information about the brands from which a choice will be made. Restructuring operations are used to generate the representations.

In the following sections, a case is made for the need to recognize and systematically examine restructuring as an essential element of decision making for choice. To this end, the role of representations in choice is described, and evidence for restructuring is discussed. A theory of restructuring is presented which considers when, how, and why consumers might restructure an information display. The theory is used to develop predictions about restructuring and its impact on the decision making processes involved in making a choice.

Background

To facilitate explication of the model of restructuring, a brief discussion of what is meant by a representation is provided, followed by evidence for the presence of restructuring in decision making for choice.

What Is A Representation?

Newell and Simon (1972) describe an individual making a complex decision as an information processing system (IPS). The IPS receives information from the task environment, which is an external representation of problem information. The task environment is analogous to the set of inputs (e.g., brands) provided by marketers.

From the external representation the IPS generates an initial internal representation. This initial representation contains marketing inputs perceived by the consumer. The internal representation may be a veridical copy of the external representation or it may be a transformed version.[1] The internal representation reflects the current situation for the decision maker. It is contained in a problem space, along with all other possible states of knowledge. The knowledge states are nodes, connected by processes. Processes are carried out by the activation of appropriate operators. If the internal representation enables the IPS to select and apply a method, or heuristic, which, when executed, will achieve a desired end, the IPS carries out the heuristic. If no heuristic is appropriate, the IPS changes the internal representation, adjusting it until a heuristic can be retrieved and applied. Changing the representation corresponds to restructuring the decision information.

Newell and Simon consider information (e.g., from the task environment or from a previously constructed representation) to be an important component in constructing a new representation. For example, structure abets problem solving if it correlates information in nodes with processes; this enables the problem solver to be selective in the use of operators to manipulate information. That is, not as much restructuring is required to facilitate use of a heuristic. Structure also influences the amount of restructuring when it enables increased selectivity of information to be retained in memory. This occurs when structure correlates information in two nodes; the decision maker does not store redundant information. In short, the types and amount of restructuring carried out are determined in large part by the structure of the presented information; the decision maker processes information opportunistically, taking advantage of patterns in the problem to reduce the amount of restructuring needed.

Evidence for Restructuring

Support for the existence of restructuring processes in decision making is found in the literatures of decision theory and of consumer behavior. In decision theory, Kahneman and Tversky (1979) propose that decision makers "edit" prospects for choice (e.g., cancelling common options, rounding values). Ranyard (1989) describes similar operations for restructuring. He finds that for single option tasks, such as setting a selling price, subjects tend to round outcomes. For gambles with more than one outcome, other operations, such as ratio calculations and difference computations, are carried out. In addition, Slovic and MacPhillamy (1974) and Montgomery (1983) describe decision behaviors which result in changed representations.

Hayes-Roth and Hayes-Roth (1979) implicitly incorporate restructuring into their description of opportunistic planning. They argue that a decision maker uses information from the set of available information whenever it seems most useful, as a means of redirecting the planning process. For example, the utility of a piece of information might be determined by its potential to reduce the effort needed to make a choice. This suggests that information once eliminated from a representation may be recalled and reincluded in a subsequent representation, should it be deemed relevant. The rationale behind opportunistic planning provides an explanation for why the processes described by researchers are observed at different times throughout the course of making a choice.

B. Hayes-Roth (1982) extends the idea of opportunistic planning to consumer decisions. She contends that given a goal of buying an item from a particular product class (in this case, a set of dishes), a consumer may refine a goal (e.g., buy stoneware vs. buy dishes) or even change a goal (e.g., buy special occasion dishes vs. daily use dishes) depending upon what is learned in the course of making the decision (e.g., relative costs, availability). Recognizing patterns in the information directs the development of heuristics for processing product information. For example, higher costs or extreme fragility consistently associated with special occasion dinnerware may lead the consumer to employ a newly developed heuristic of ignoring all plates made of bone china. The consumer restructures the decision by eliminating information about bone china dinnerware, thus constructing a new representation of the decision.

Additional findings in consumer behavior which demonstrate the need to recognize and understand the role of restructuring are presented by Klein and Yadav (1989), who show that subjects eliminate inferior alternatives from a representation. M. Johnson (1984) and Simmons and Lynch (1991) describe situations in which subjects increase the size of a representation by inferring abstract attributes and by inferring missing values. Each of these studies indicates that consumers appear to seldom work with information as it is presented. Instead, they carry out operations to construct new representations. This opportunistic restructuring, which results in a changed information display, may also affect the selection and use of a heuristic for

[1] This part of the decision process is a structuring phase. In this paper decision structuring is viewed as a subset of restructuring. Structuring describes the process by which the decision maker constructs an initial representation of the decision (Gettys 1983; Keller 1987). Restructuring includes the initial representation and any subsequently constructed representations.

evaluating information, which in turn may affect choice.

The research described above underscores the importance of restructuring in consumer choice, and the need for a general framework capable of predicting when and how consumers will restructure. In the next section, a theory of restructuring is developed to provide a comprehensive explanation of the role of restructuring in decision making for choice.

A Theoretical Model of Restructuring

Why Do Consumers Restructure?

The model of restructuring is founded upon the related concepts of contingent processing (Payne 1976; 1982) and effort/accuracy views of decision making (e.g., Christensen-Szalanski 1978). McAllister, Beach and Mitchell (1979) summarize the contingent processing view, stating that ". . . decision makers do different things in different ways when faced with different decision problems" (page 228). For a theory of restructuring, the contingent processing approach suggests that consumers will select and use different types and amounts of restructuring operations to facilitate choices among options in different information representations.

The amount of restructuring a consumer is willing to carry out may also be determined by how difficult the information in a representation is to process: that is, how much demand is placed upon cognitive resources. An effort-accuracy approach to decision restructuring characterizes a consumer as having limited cognitive resources and the need to trade off decision quality against processing costs. The tradeoffs may be assessed on both global and local levels (Payne, Bettman, Coupey and Johnson 1991). On a global level, more effort spent restructuring a problem may mean that fewer resources are required to process it later. In this way, the consumer can trade off effort to restructure and effort to use a heuristic. The consumer may restructure the decision by converting it into a familiar form, that is, one for which he has an accessible heuristic that can be applied to the information. Alternatively, the structure the consumer imposes may be the result of patterns detected in the information, patterns which suggest a heuristic that can be constructed on-the-spot and used to make the choice (see Bettman (1979) and Bettman and Zins (1977) for discussions of constructive heuristics). The consumer is still making effort/accuracy tradeoffs, but during opportunistic processing the tradeoffs may occur in a more local fashion: for example, they may reflect assessments of the tradeoffs involved in completing a restructuring operation, compared with the tradeoffs of using an alternative operation. Whether at a global or a local level, however, the effort/accuracy framework implies that the consumer attempts to strike an acceptable balance of the effort that must be invested to process the information and the decision quality that can be obtained for a given level of effort. The effort/accuracy approach is compatible with Newell and Simon's (1972) description of how decision makers economize cognitively by exploiting structure, and the Hayes-Roth and Hayes-Roth (1979) view of opportunistic planning.

How Do Consumers Restructure?

The mechanisms for restructuring are of two basic types: (1) the means by which restructuring operations are carried out, and (2) the actual restructuring operations that are carried out.

Resources for restructuring information. Two resources can be used to restructure information: (1) internal memory, and (2) external memory. Consumers may restructure information by using the resources of internal memory to carry out desired operations: for example, computing and storing products of unit price transformations. One of the major drawbacks of internal memory, however, is that it has limited processing capacity; the consumer may not be able to maintain the amount of information in memory necessary to complete the restructuring.

Internal processing capacity limitations affect the amount of effort or attention that a consumer can put into a decision; however, external memory is not subject to the same limitations. External memory is available to the consumer through, for example, ads, product displays, brochures, and self-generated notes. Consumers may generate external memory to restructure information, circumventing the difficulties caused by internal memory limitations. All forms of external memory can be used to aid restructuring.

Operations for restructuring. Kahneman and Tversky (1979) suggest six ways that decision makers might restructure information: (1) eliminating dominated alternatives, (2) coding, (3) combination, (4) cancellation, (5) segregation, and (6) rounding. A dominated alternative is an option which is worse than any other available option on a majority of attributes. A decision maker can eliminate a dominated alternative from the decision set without compromising potential choice quality or accuracy. *Coding* is the process by which a decision maker sets a reference point and then codes deviations from it. For example, a consumer might decide that in a set of refrigerators from which one will be chosen, the average price is $600. Setting this as the reference point, the consumer then evaluates the models by coding refrigerators above $600 with a minus sign and ones below $600 with a plus sign. *Combination* is a process for reducing or reorganizing the information in a representation by grouping together prospects with similar outcomes. *Cancellation* also enables the decision maker to reduce information by eliminating common aspects of the decision. *Segregation* is used to reorganize the problem representation. The decision maker separates sure gains from possible gains and sure losses from possible losses. Kahneman and Tversky contend that decision makers use these operations whenever possible to simplify a representation and subsequent evaluation and choice. In addition, they propose that certain sequences of operations may

result in the creation of different prospects for choice. Using one operation may preclude the use of another operation; therefore, the order in which operations are done may result in substantially different problem representations from decision maker to decision maker.

Research conducted by Klein and Yadav (1989) and by Ranyard (1989) provides empirical support for two of the operations proposed by Kahneman and Tversky: elimination of dominated alternatives (Klein and Yadav) and rounding of values (Ranyard).

The types of restructuring operations mentioned in Montgomery's (1983) discussion of his dominance model of decision making suggest a different type of restructuring in which operations are not merely used to reduce problem size, but also to transform the values of information. Montgomery implies that the decision maker will change information to make it fit a desired dominance structure. Attributes may be emphasized or deemphasized, resulting in a transformation of attribute weights. Ranyard's observation that subjects compute ratios and differences between probabilities or values provides empirical support for Montgomery's proposed transforming operations.

Slovic and MacPhillamy (1974) report results of an experiment which provide support for Montgomery's description of restructuring. Subjects were presented with stimuli which some attributes were not commensurable for all alternatives. The authors found that subjects tended to place greater emphasis on the attributes which were commensurable. Although not intended as a study of restructuring, this study does indicate that subjects transform information, such as attribute weights, to reflect evaluations of the decision formed in opportunistic, bottom-up information processing.

Drawing upon the results of the research by Kahneman and Tversky (1979) and Montgomery (1983), a rough typology of restructuring operations can be developed. Restructuring operations can be used to simplify information by editing out information, or to alter the problem representation by transforming or rearranging the presented information. In addition, consumers may infer new attributes (Johnson 1984) or attribute values (Huber and McCann 1982; Simmons and Lynch 1991). This suggests that restructuring may also be done to add new, not presented information to a problem representation. The table in **Figure 1** presents the typology of operations as well as examples of specific operations within each subgroup.

FIGURE 1
A TYPOLOGY OF RESTRUCTURING OPERATIONS*

EDITING	TRANSFORMING	INFERRING
Round values	Standardize attribute values	Infer attributes
		Infer attribute values
Eliminate redundant attribute information	Relabel attribute weights or values (e.g., by ranking or coding)	
Eliminate non-diagnostic information	Combine information (e.g., group similar options)	
Eliminate dominated alternatives	Segregate information (e.g., good options and bad options)	

* Note that in general, editing operations reduce problem size, transforming operations maintain size, and inferring operations increase size. However, operations to infer may often reduce size, as in the case of inferring an abstract attribute on which to compare two originally noncomparable alternatives (Johnson 1984). Reduction occurs if the decision maker eliminates the original, noncomparable features from a subsequent representation.

When Do Consumers Restructure? Predictions of Restructuring Behavior

A theoretical model of restructuring which combines effort/accuracy and contingent processing concepts suggests that restructuring will depend upon the demands that an information representation is perceived to make upon available cognitive resources, and the consumer's willingness to expend those resources. Below, the model is used to develop predictions about when consumers will restructure information to construct new representations. Predictions are also presented about how the restructuring will be accomplished.

Research on heuristic selection in decision making has demonstrated that heuristic selection is contingent upon task and context factors (Payne 1982). Task factors describe general characteristics of the decision (e.g., time pressure, number of alternatives), and context factors reflect characteristics of the values of information (e.g., presence of dominated alternatives, comparability of attribute values). Because task and context factors often define the representation of decision information (e.g., whether the size of the representation is large or small) as well as indicate restructuring processes that can be done to make the choice manageable (e.g., eliminate information from a large representation), the presence of different factors should result in differential use of restructuring operations. In general, task factors and their effect on decision difficulty may be apparent earlier than many context factors. They can be gauged in an early "sizing-up" of the problem and do not rely upon inspection of attribute values. One broad prediction, then, is that task factors will result in earlier restructuring than context factors. This is important because, as Kahneman and Tversky (1979) note, carrying out one type of operation may preclude the use of other operations. For example, a consumer who transforms values on an attribute to a single, more compa-

rable unit may be more likely to detect dominance and reduce effort by eliminating the dominated alternative than a consumer who doesn't restructure by transforming information. This means that different sequences of restructuring operations can result in entirely different choices, as well as different demands on cognitive effort, due to the differences in representations constructed during the choice problem.

The restructuring model also leads to predictions about how consumers will adapt differently to individual task and context factors which affect decision effortfulness. For example, a consumer faced with making a choice under time pressure, or making a choice among many alternatives (both task factors), may attempt to reduce the amount of cognitive effort required to process information by constructing a representation with fewer pieces of information. This necessitates restructuring the initial representation by eliminating information. Note that the eliminations to adapt to a task factor may exploit the recognition of context factors, such as dominated or inferior alternatives and attributes of low diagnosticity.

In contrast, suppose that a decision is difficult because the available information about attribute values for a diagnostic attribute is not in easily comparable units (e.g., warranty represented in weeks, months, or years). It is expected that a consumer making a global effort/accuracy tradeoff of reducing heuristic effort by investing resources to restructure would construct a new representation using standardizing operations to transform attribute values into a single unit. In this situation, the consumer perceives the cost of restructuring to be balanced or outweighed by the benefits of being able to use a particular heuristic for choice.

It is necessary to note that the predictions described above may be mediated by "person factors," such as familiarity with the product class from which a choice is to be made. This should be particularly important for consumers who are making global effort/accuracy tradeoffs of effort to restructure and effort to use a heuristic. Familiarity may affect the construction of a representation in two ways. First, familiarity may mean that the consumer has experience with the use of a particular heuristic. The higher accessibility of one heuristic over others may lead to a predisposition to use the easily retrievable heuristic because its application is perceived to be less effortful, as well as its selection and retrieval. If so, then it is possible that the consumer might opt to use the better known heuristic regardless of the format of information in the representation. This event may result in more restructuring than would the use of an approximately equally effective alternative heuristic. Observation of this behavior would support the notion of global effort/accuracy tradeoffs; the consumer invests more effort in restructuring to gain the benefits (e.g., reduced effort) of a known heuristic that can be carried out with acceptable effort.

Familiarity may also have a second effect: that of increasing the accessibility of useful restructuring operations. For example, prior knowledge of which information is likely to be diagnostic for making a choice may affect the consumer's readiness to eliminate information perceived to be nondiagnostic or the consumer's willingness to invest cognitive resources to carry out transforming operations to standardize information on a diagnostic attribute.

Summary and Implications

Consumers seldom make choices in a world in which information is provided in a representation designed to facilitate choices of good quality with comfortable levels of effort investment. As a result, consumers must often construct representations to facilitate making choices. The preceding discussion has focused on the development of a model which describes the nature and effects of restructuring on the construction of information representations for choice. The primary contribution of the model is to introduce restructuring as a fundamental and frequently occurring component of decision making, a component with systematic and profound effects on decision processing, including heuristic selection and choice.

In addition, the model describes restructuring as a dynamic process, in which the operations to construct a representation at one point in time can have drastic effects on the operations and heuristics that may be carried out on subsequent representations. This model conceptually extends previous research, which typically has addressed the use and effects of information displays in only one slice of time.

The incorporation of effort/accuracy considerations into a model of restructuring has several benefits. First, an effort/accuracy framework offers a rationale for apparent differences in types and amounts of restructuring. Consumers make effort/accuracy tradeoffs on both global and local levels, based upon perceptions of task demands (a contingent processing perspective). These tradeoffs are reflected in the representations that are subsequently constructed, and in the heuristics used to evaluate information in the representations.

A second benefit of the effort/accuracy approach is its successful application in research on heuristic selection. Because the processes of restructuring and heuristic selection or construction are closely related, there is no a priori reason to assume that the cognitive mechanisms which drive them should differ. The effort/accuracy approach provides a parsimonious explanation for a diverse collection of decision behaviors.

A third, yet related benefit, is the contribution of the effort/accuracy approach in generating predictions about when and why consumers will restructure. When combined with research on contingent processing due to characteristics of tasks and context, this approach suggests predictions about the types and effects of re-

structuring, which, if substantiated by empirical findings, should prove useful for marketers and public policy makers in the development of information displays to influence consumer choice.

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THE IMPACT OF INDIVIDUAL DIFFERENCES ON THE USE OF RISK REDUCTION STRATEGIES IN ORGANIZATIONAL PURCHASING

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Abstract

The purpose of this study was to determine the impact of individual characteristics of organizational buyers on the use of risk reduction strategies. The results suggested that years of formal education, gender, and CPM certification status all have major impacts on risk reduction strategy use. Conversely, years of buying experience and age were found to have relatively little affect on the propensity to use various risk reduction strategies.

Introduction

Virtually every organizational purchasing situation involves some degree of risk. Buyers must choose vendors, goods, and services even though they can't be completely sure as to what the ultimate impact of their decision may be.

This situation has provided the impetus for the revered "perceived risk" model of organizational purchasing. This particular model has shown itself to be a powerful explanatory mechanism (Cunningham, 1967; Hawes and Barnhouse, 1987) in explaining the behaviors engaged in by organizational buyers.

Implied in the perceived risk model is the notion that buyers prefer less risk to more. Consequently, they are likely to engage in behaviors designed to reduce the amount of risk inherent in the situation. This paper investigates the extent to which this risk reduction behavior is impacted by individual characteristics of the buyer.

Clearly, individual buyer characteristics are not the only factors capable of influencing organizational purchasing behavior. Nonetheless, recent buyer behavior models have consistently identified individual characteristics as critical components in the total structure (e.g. Webster and Wind, 1972b; Sheth, 1973). As observed by Webster and Wind (1972b):

> in the final analysis, all organizational buying behavior is individual behavior....the individual is at the center of the buying process (p.18).

Consequently, an analysis of the nature presented in this paper is appropriate and consistent with recent purchasing thought.

Background

Perceived Risk

Bauer (1960) first addressed the perceived risk concept when he proposed that consumer behavior could be viewed "as an instance of risk taking". He maintained that consumer behavior involved risk in the sense that an action will produce consequences which we cannot anticipate with certainty and which will in some cases be unpleasant.

Bauer was also quick to point out the difference between "risk" and "perceived risk". Risk may exist, yet if the individual doesn't perceive it they can't be influenced by it. Conversely, risk can be perceived, but be nonexistent. Individuals respond to and deal with risk as they perceive it subjectively.

Cox (1967) expanded on Bauer's work when he posited that the amount of perceived risk involved in a behavioral act is a function of:

1. The amount that would be lost if the consequences of the act were not favorable and,
2. The individual's subjective feeling or degree of uncertainty that the consequences would be unfavorable.

Additionally, Cox maintained that:

> The amount at stake is a function of the importance or magnitude of the goals to be attained, the seriousness of the penalties that might be imposed for nonattainment, and the amount of means committed to achieving the goals. The nature of the risk perceived should be a function of the nature of the buying goals involved. . . . The other major factor, which determines the amount of the individual's perceived risk, is her feeling of subjective certainty that the consequences of an act will be favorable. No matter how much she has at stake, if she feels "absolutely certain" that the consequences of her actions will be favorable, then from her point of view, the amount of risk is nil or almost nil. Conversely, when the amount at stake is held constant, the less certain the individual is that the consequences of her actions will be favorable, and the greater the amount of risk (p. 38).

Webster and Wind (1972a) extended Bauer's (1960) model into organizational purchasing and defined perceived risk as:

> a function of the buyer's uncertainty about the likelihood of occurrence of an event (which can be stated as a probability

between one and zero that the event will occur) and the consequences associated with that event if it should occur (p. 17).

As in the Bauer conceptualization, perceived risk was considered to have an uncertainty and a consequence dimension.

The uncertainty component is made up of:

1. Uncertainty about the reactions of others to his decisions, and
2. Uncertainty due to lack of information concerning expectations from the job and alternative courses of action (Robinson, Faris, and Wind, 1967).

The consequence component is also a determinant of the amount of risk perceived. Adverse consequences may arise from:

1. A product or vendor's failure to perform satisfactorily, and
2. The reaction of others to his decisions (psychosocial consequences) (Webster and Wind, 1972a).

Perceived risk has received a significant amount of attention in purchasing over the last three decades. Although the concept had its start in the consumer behavior context, it has been successfully extended over the years into organizational purchasing. What is clear is that perceived risk is capable of influencing the decision-making process and consequently behavior on the part of those making purchases (e.g. Peter and Tarpey, 1975; Choffray and Johnston, 1979; Hawes and Barnhouse, 1987). Additionally, the general consensus is that perceived risk is a phenomenon comprised of both uncertainty and consequence dimensions.

Risk Reduction

If high levels of perceived risk are viewed as an undesirable state, then it is likely that some effort will be made to reduce risk to an acceptable level. Cox (1967) contended that if the amount of perceived risk is a function of the amount at stake and the individual's feeling of certainty that loss will occur, then perceived risk reduction would involve:

1. Reducing the amount at stake, and/or
2. Increasing the feeling of certainty that loss would not occur (i.e. become more certain that the consequences of actions would be favorable).

In the organizational purchasing context, Webster and Wind (1972a) have identified four major classes of risk reduction strategies. These are:

1. Information acquisition and processing
2. Goal reduction
3. Loyalty, and
4. Investment reduction.

Information acquisition and processing is the most frequently used risk reduction strategy. As information is collected, the perceived risk is reduced as the range of possible outcomes is reduced. Goal reduction involves a lowering of standards for a particular situation. A buyer reduces risk by not taking chances and consequently may enter into acceptable, but not optimal, purchase agreements.

Loyalty is a risk reducing strategy that maintains goals at acceptable levels. Loyalty may extend to particular brands, products, or vendors. Investment reduction refers generally to the minimization of investment on the part of a buyer. This may occur through:

1. A reduction in the time and effort involved in the search
2. A reduction in the financial investment, and
3. A reduction in personal commitment to the buying situation.

Sweeney, Mathews, and Wilson (1973) have also examined the "dimensionality" of risk reduction strategies. In their work, they factor analyzed a set of 10 strategies and elicited the structure found in Table 1.

TABLE 1
SWEENEY, MATHEWS, AND WILSON'S (1973)
RISK REDUCTION FACTORS

FACTOR	LABEL	DOMINANT STRATEGY
1	External Uncertainty Reduction	2. Arrange for a visit to the supplier plant. 3. Investigate possible means of expediting the supplier's delivery commitment. 4. Seek top management commitment from the supplier.
2	Internal Consequence Reduction	6. Consult with own top management before decision. 8. Consult with own manufacturing people about rescheduling production.
3	Internal Uncertainty Reduction	1. Consult with buyers in other firms about their experience with the supplier. 5. Search for additional published information. 7. Negotiate a penalty clause in the supplier contract.
4	External Consequence Reduction	9. Negotiate with supplier for a better price. 10. Split the order between suppliers at some acceptable level.

External uncertainty reduction strategies require the industrial buyer to go outside of his or her own organization in order to reduce the uncertainty in the buying situation. Internal consequence reduction strategies

require the industrial buyer to stay within their firm in their attempts to reduce the seriousness of negative consequences. Internal uncertainty reduction strategies are attempts to reduce uncertainty and are those that can be initiated within the buyer's organization or buying community. External consequence reduction strategies generally involve some type of negotiation outside of the buyer's organization and would reduce the seriousness of negative consequences.

The research groups of Webster and Wind (1972a) and Sweeney, Mathews, and Wilson (1973) have both captured the scope of risk reduction strategies, but from different perspectives. As would be expected, these two taxonomies can be related to each other. For instance, Webster and Wind's "information acquisition and processing" strategies are typical of what Sweeney, Mathews, and Wilson would call "uncertainty reduction" (both internal and external) strategies. Likewise, Sweeney, Mathews, and Wilson's consequence reduction (both internal and external) strategies reflect Webster and Wind's "investment reduction" strategies.

Methodology

The questionnaire employed in this study presented a purchasing scenario to the respondent and then asked the extent to which they would make use of 10 risk reducing strategies. These ten strategies were the same as used in the previously cited Sweeney, Mathews, and Wilson (1973) study. "Extent of use" was measured on a six point scale with the terms "to a great extent" and "to no extent" anchoring the endpoints. Respondents were also asked to provide information concerning their: 1) length of employment as a purchasing professional, 2) gender, 3) age, 4) education level, and 5) whether or not they were a certified purchasing manager (CPM).

The research made use of case scenarios. Generally, this method has been well accepted in organizational buyer behavior research and, as evidenced by the number of studies using this approach (e.g. Krapfel, 1985; Crow, Olshavsky, and Summers, 1980; Puto, Patton, and King, 1985), is quite popular.

In an attempt to increase the generalizability of the study, not all respondents were exposed to the same scenario. Six different scenarios were employed with an equal number of respondents being exposed to each. The scenarios differed with regard to the buying situation (Cardozo, 1980) (product being considered was either a "custom" or "standard" product), and the relationship with the vendor being considered (Ford, 1980) (either nonexistent, developing, or well established). A manipulation check conducted with 186 members of the Twin City Purchasing Management Association insured that the scenarios were capable of creating the proper "setting" for each respondent.

Given the nature and quantity of information required in this study, a decision was made to employ a mail survey. The initial mailing included a copy of the research instrument, a personalized cover letter, and a coded, pre-addressed, pre-paid return envelope. A follow-up postcard was sent to all potential respondents five days after the initial mailing.

The sample was provided by the National Association of Purchasing Management (NAPM). From the 2,352 NAPM members who had listed SIC major group 36 as their firm's major activity, 1176 were systematically selected for the sample. Major group 36 includes those firms involved primarily with electronic and other electrical equipment and components and falls under the SIC manufacturing division (division d). 474 of the questionnaires were returned and usable yielding a response rate of 41%.

Results and Discussion

As an initial step in the analysis, five oneway MANOVA's were conducted. In each case, the extent of use scores for the ten risk reduction strategies were used as the dependent variable set. As independent variables, the respondents: 1) length of time as a purchasing professional (buytime), 2) gender (sex), 3) age (age), 4) education level (educate), and 5) CPM certification status (CPM) were used sequentially.

For the purpose of the analysis, the three continuous independent variables were dichotomized. This involved recoding the length of time employed as a purchasing professional ($\leq$ 10 years = new; > 10 years = old), age ($\leq$ 30 years = young; > 30 years = old), and education level (< college degree = low; $\geq$ college degree = high). These results are found in Table 2.

TABLE 2
MANOVA'S OF RISK REDUCTION STRATEGIES ACROSS DEMOGRAPHICS

	SOURCE							
STRATEGY	BUYTIME		SEX		AGE		EDUCATE		CPM	
	F	F-PROB	F	F-PROB	F	F-PROB	F	F-PROB	F	F-PROB
All Strategies	2.33	.011	5.74	.000	1.95	.037	4.07	.000	2.63	.004

As can be seen, significant differences were found in each case. Each of the independent variables was found to impact the extent to which the set of ten risk reduction strategies would be employed.

Given these findings, it was appropriate to conduct a series of ANOVA's to determine exactly "where" the differences occurred within the vector of extent of use scores. Table 3 presents the results of this endeavor.

TABLE 3
ANOVA'S OF RISK REDUCTION STRATEGIES
ACROSS DEMOGRAPHICS

STRATEGY	BUYTIME NEW	BUYTIME OLD	SEX MALE	SEX FEMALE	SOURCE AGE YOUNG	SOURCE AGE OLD	EDUCATE LOW	EDUCATE HIGH	CPM YES	CPM NO
Consult the buyers in other firms	2.90	2.86	2.93	2.77	2.97	2.87	2.61*3.00		2.92	2.87
Arrange a visit to supplier's plant	1.36*1.19		1.26	1.38	1.55*1.26		1.26	1.31	1.22	1.33
Seek top management commitment from supplier	1.49	1.46	1.47	1.50	1.66	1.45	1.36	1.53	1.42	1.51
Search for additional published information	2.19	2.23	2.22	2.16	2.22	2.20	2.14	2.24	2.14	2.24
Negotiate a penalty clause	2.09	2.24	2.31*1.75		2.02	2.17	1.85*2.28		2.44*2.03	
Negotiate for a better price	2.19	2.39	2.41*1.92		2.03	2.31	2.01*2.38		2.53*2.16	
Insure that your management is in favor of supplier	2.04	2.24	2.27*1.73		2.14	2.11	1.78*2.26		2.18	2.09
Consult with your own manufacturing people	2.92	2.86	3.04*2.53		2.92	2.89	2.54*3.04		2.95	2.87
Investigate means of expediting supplier delivery commitment	2.04	2.19	2.20*1.87		2.16	2.10	1.91*2.19		2.27*2.04	
Split the order between suppliers	2.95	2.83	2.92	2.87	3.11	2.87	2.99	2.87	2.98	2.87

* Indicates differences at the .05 level

The length of time employed as a purchasing professional (buytime), and the age of the buyer (age) appeared to have minimal effect on the use of risk reduction strategies. The three individual characteristics that appeared to have the most impact on the use of risk reduction strategies were CPM certification (CPM), gender (sex), and respondent education level (educate). Significant differences were found for three, five, and six of the individual strategies respectively.

In an attempt to draw some generalizations, the risk reduction strategies were next grouped as per the previously discussed Sweeney, Mathews, and Wilson (1973), and Webster and Wind (1972a) risk reduction strategy typologies. Table 4 presents the former.

TABLE 4
ANOVA'S OF RISK REDUCTION STRATEGIES
ACROSS DEMOGRAPHICS (GROUPED AS PER
SWEENEY, MATHEWS, AND WILSON, 1973)

STRATEGY	BUYTIME NEW	BUYTIME OLD	SEX MALE	SEX FEMALE	SOURCE AGE YOUNG	SOURCE AGE OLD	EDUCATE LOW	EDUCATE HIGH	CPM YES	CPM NO
INTERNAL UNCERTAINTY										
Consult the buyers in other firms							2.61<3.00			
Search for additional published information										
Negotiate a penalty clause			2.31>1.75				1.85<2.28		2.44>2.03	
EXTERNAL UNCERTAINTY										
Arrange a visit to supplier's plant	1.36>1.19				1.55>1.26					
Seek top management commitment from supplier										
Investigate means of expediting supplier delivery commitment			2.20>1.87				1.91<2.19		2.27>2.04	
INTERNAL CONSEQUENCE										
Insure that your management is in favor of supplier			2.27>1.73				1.78<2.26			
Consult with your own manufacturing people			3.04>2.53				2.54<3.04			
EXTERNAL CONSEQUENCE										
Negotiate for a better price			2.41>1.92				2.01<2.38		2.53>2.16	
Split the order between suppliers										

Note: For ease of interpretation, only the differences significant at the .05 level are presented.

Three major conclusions can be drawn from this table. First, females have a greater propensity to employ internal consequence reducing strategies than do males. Similarly, those with less education are more likely to employ internal consequence reducing strategies than those with more education. Finally, it appears as if those with less education have a greater tendency to employ internal (both consequence and uncertainty) risk reducing strategies than do those with more education.

Buyers stay within their own firms to reduce the seriousness of negative consequences when they employ internal consequence reducing strategies (Sweeney, Mathews, and Wilson, 1973). Female buyers, and those buyers with less education, show a greater propensity, relative to males and those with more education respectively, to do just that.

At least two possible postulations can be developed from this finding. First, it may suggest that these two groups are quite concerned with reaching an "internal consensus" within the organization prior to the purchase. In this sense, it reflects a philosophy for the conduct of business.

On the other hand, it may imply that these two groups are less confident in their abilities to make the right decision and are attempting to "spread the risk". That is, if things go wrong, others within the organization would be partly to blame.

As a final step, the ten strategies were grouped as per the Webster and Wind (1972a) typology. The strategies represented both information acquisition and investment reduction activities. Table 5 presents the results.

TABLE 5
ANOVA'S OF RISK REDUCTION STRATEGIES
ACROSS DEMOGRAPHICS (GROUPED AS PER
WEBSTER AND WIND, 1972a)

STRATEGY	BUYTIME NEW	BUYTIME OLD	SEX MALE	SEX FEMALE	SOURCE AGE YOUNG	SOURCE AGE OLD	EDUCATE LOW	EDUCATE HIGH	CPM YES	CPM NO
INFORMATION ACQUISITION										
Consult the buyers in other firms							2.61<3.00			
Arrange a visit to supplier's plant	1.36>1.19				1.55>1.26					
Seek top management commitment from supplier										
Search for additional published information										
INVESTMENT REDUCTION										
Negotiate a penalty clause			2.31>1.75				1.85<2.28		2.44>2.03	
Negotiate for a better price			2.41>1.92				2.01<2.38		2.53>2.16	
Insure that your management is in favor of supplier			2.27>1.73				1.78<2.26			
Consult with your own manufacturing people			3.04>2.53				2.54<3.04			
Investigate means of expediting supplier delivery commitment			2.20>1.87				1.91<2.19		2.27>2.04	
Split the order between suppliers										

Note: For ease of interpretation, only the differences significant at the .05 level are presented.

In this case, the generalizations become much

easier. Females clearly had a greater propensity to employ investment reduction strategies than did males. There was also a definite tendency for those with less education to employ investment reduction strategies to a greater extent than those with more. The evidence also suggested that non-CPM's employ investment reduction strategies to a greater extent than do CPM's. Finally, virtually no differences were found in the use of information acquisition strategies.

Buyers reduce either the amount of time and effort involved in the search, the financial investment involved, or their own personal commitment to the buying situation when they employ investment reduction strategies (Webster and Wind, 1972a). Female buyers, those buyers with less education, and non-CPM buyers all had a propensity to employ these strategies to a greater extent than did males, buyers with more education, and CPM's respectively.

A number of the investment reduction strategies employed in this study are remnants of the older "adversary" school of organizational buying (e.g. negotiate a penalty clause; negotiate for a better price; investigate ways to expedite the order). More recent thinking in buying reflects less confrontation and more cooperation. The results suggest that females, those less educated, and non-CPM's may be influenced to a greater degree by this adversary line of thought.

Conclusions

An understanding of the risk reduction behavior of organizational buyers is valuable knowledge to those involved in industrial sales. This study has shown that individual characteristics of buyers can, to some degree, be used to predict these behaviors. As the characteristics examined in this study can be easily determined by salespeople, the finding of this study should prove useful to them.

Sellers who pay attention to individual characteristics will have an a priori knowledge of likely buyer responses. This knowledge should allow salespersons the opportunity to tailor their sales presentations and follow-ups to the situation at hand.

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INITIAL IMPRESSIONS IN THE ORGANIZATIONAL BUYER-SELLER DYAD

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Abstract

The purpose of this research effort is to investigate the phenomenon of initial impressions as related to the organizational buyer/seller dyad. Results indicated perceptual differences along gender and racial dimensions. Implications for sales management are posited and discussed.

Introduction

For many types of marketing exchanges, some form of interpersonal contact is required. Numerous studies in the marketing literature have focused upon the interaction process inherent in marketing exchanges--specifically the buyer/seller dyad (Bush and Wilson 1976; Gabel 1964; Schurr and Ozanne 1985; williams 1978; Woodside and Davenport 1974). Typically, as the above studies illustrate, the evaluation of the buyer/seller dyad utilizes the transaction process as the base unit of analysis, with a general conclusion being that the greater the similarity (or attraction) between the buyer and the seller, the more likely the transaction will be successfully completed (Evans 1963). Empirical investigation into the interactions which occur prior to the actual transaction is virtually nonexistent.

Axiomatic to this discussion is the fundamental assumption that the inital categorization undertaken by an individual is on the basis of perceived similarity-dissimilarity with the stimulus person (e.g., salesperson) (Bruner, Goodnow, and Austin 1956). The study by Bruner, Goodnow, and Austin (1956) stimulated a stream of research whose primary purpose was to examine the role of perceived simiarilty-dissimilarity in varying types of buyer/seller relationships (see, for the example Brock 1965; Churchill, Collins, and Strang 1975; Robertson, Martin, and Bellenger 1978). It should be noted that it is the degree of perceived similarity between the buyer and the seller, as judged by the buyer, that is of primary importance, not the extent to which the two individuals are actually alike (Cronbach 1955).

There is substantial evidence that perceivers initially categorize individuals on the basis of easily observable characteristics such as race and sex (Allport 1954; Taylor, Fiske, Etcoffk and Ruderman 1978). Zajonc's (1980) research indicates that upon meeting someone for the first time, an individual can seldom escape formulating affective reactions and formulates these reactions almost instantaneously and effortlessly.

Associatively, Karlins, Coffman, and Walters (1969) and Lippman (1922) point out that perceivers commonly attribute to those individuals all the lifestyle characteristics that the perceiver commonly associates with that stimulus group (e.g., racial). This "initial impression" provides the perceiver with a long-lasting, although possibly inaccurate, overall predispositional view toward the individual (Schiffman and Kanuk 1987). For example, Katz and Braly (1933) conducted one of the first empirical studies concerning the prevalence of racial predispositional views (i.e., Stereotypes). The results of that study, and later studies by Gilbert (1951) and Karlins, Coffman, and Walters (1969), indicate that significant predispositional views exist even with those individuals who have had limited previous contact with the racial subcultures. Allport (1958) has described such a racial predispositional view as a "faculty and inflexible generalization" (p. 10).

Likewise, it has been shown that previous personal experience does contribute to greater accuracy in the initial stereotyping (Schiffman and Kanuk 1987; Taguiri 1969). Therefore, a priori determination of characteristics that perceivers commonly associate with these category groupings should provide the interested party (e.g., sales manager) with information pertaining to anticipated initial reaction by a perceiver (e.g. organizational buyer) to a given stimulus object (e.g., seller). If the initial reaction of the perceiver to the stimulus object is recognized a priori to be potentially negative, corrective action may be initiated in an attempt to overcome the initial impression so that the purchase dyad may progress toward the desired outcome (a sale).

The Study

Purpose

This study is designed to provide information concerning one factor of the traditional buyer/seller dyad. Specifically, this research examines initial categorizations and initial impressions attributed to industrial salespersonnel (stimulus objects) by the organizational buyer (perceiver).

Hypothesis

Based upon the above discussion, it is hypothesized that:

> Organizational buyers of given gender and race will form distinct first impressions unique to each category of stimulus object (salesperson) encountered. Since buyers vary by race and sex, unique first impressions are expected for stimulus objects (salespeople) of differing race and sex.

Method

Traditionally, a communication source may be composed of the two base components of influence--social compliance and risk reduction (Bauer 1964). Social compliance may be viewed as being

closely associated with an individual's personal sentiments toward the stimulus source (e.g., a white salesperson) (either positive or negative). Risk reduction may be tied to the individual's expertise with the given purchase situation. For example, the less experience or expertise the potential purchaser has with a given purchase situation, the higher the level of risk reduction sought by that individual and less social compliance or similarity with the salesperson comes into play (Bauer 1960; Busch and Wilson 1976; Woodside and Davenport 1974).

Expanding on Bauer's (1964) origninal work, Wilding and Bauer's (1968) revised model of resource effect, suggested four components of a communication source, with two components being linked to each of the original factors of social compliance and risk reduction. Specifically, the two new factors of competence and trust were tied to risk reduction, while the components of power and likability were associated with social compliance.

Wilding and Bauer examined consumer reactions to a communication source by examining the relative influence of social compliance and risk reduction in a given purchase situation. As the level of perceived riskiness of a purchase situation increased, the relative influence of the risk reduction aspects of the communication source were found to increase. Conversely, as the level of perceived risk associated with the purchase situation decreased, the relative influence of the social compliance aspects of the communication source were found to increase (Bauer 1960; Wilding and Bauer 1968).

The Instrument and Data Collection

The instrument used in this research incorporates the sixteen pair of bipolar descriptive adjectives utilized in the Wilding and Bauer (1968) work. Specifically, the study utilizes four adjective pairs pertaining to each of the four source components utilized perviously; competence and trust--dealing with risk reduction; power and likability--dealing with social compliance.

The instrument was administered at professional meetings and during government buyer seminars. The meeting participants belong to NAPM branch organizations in Virginia, Mississippi, and Tennessee. Government buyers are civilian employees at a major military installation in Virginia. All subjects were solicited on a voluntary basis. Approxmimately 85% of caucasian responses correctly identified the race and sex of the salesperson featured in the sketch treatments. Kruskal-Wallis tests for sample differences between the four sample sources indicated no significant differences at the p .10 level on the dependent variables, thereby indicating the samples could be combined. See Gibbons (1976) for a discussion on the use of this test.

The present research utilized four professionally rendered artist sketches of industrial salespeople, one each of the following: black male, black female, white male, and white female. Artist rendings were used in the study to provide the respondents with a generic subjects--one differentiated only by race and/or sex--in an attempt to provide control over physical and situational attributes considered non-criterial to be current research.

Subjects are given one sketch at random to examine followed by the Wilding-Bauer 16 bipolar adjective questionnaire. Respondents were informed that the drawing was of a salesperson they had not previously met, who was representing a vendor they had not previously utilized. Respondents were then instructed to complete the questionaire. Subjects were requested to not talk to one another during the administration of the questionnaire. They were asked to reply honestly to their first impression formed upon immediately viewing the artist's sketch. Selected demographic information was collected from the respondent following completion of the questionaire.

Analysis

Responses to the 16 bipolar adjective items were factor analyzed in order to evaluate how the structure of the Wilding-Bauer components (competence, trust, power and likability) mainfest in the current sample. In keeping with precedent set in theory and past research using this instrument (e.g., LaTour, Henthorne, and Williams 1989), principle components analysis was employed. Since each factor represents an underlying perceptual dimension of the respondents' first impressions, factor scores were retained as dependent variables for treatment manipulation in subsequent Multivariate Analysis of Variance (MANOVA). The independent variables included the sketch treatments, respondents gender, as well as number of years of formal education, age, and years in present position as covariates. It should be noted that this is a between subjects analysis as each subject was presented with only one randomly ordered sketch.

Results

Description of the Sample

One hundred and seven caucasian purchasing professionals completed all parts of the instrument. Random assignment to treatment groups included 11 males and 12 females to the black male sketch treatment, 14 males and 14 females to the black female sketch treatment, 14 males and 11 females to the white male sketch treatment, and 14 males and 17 females to the white female sketch treatment.

Approximately 38% of the organizational buyers were involved in the manufacturing sector, 30% in the governmental sector, 2% in health care, 1% in transporation, with the remainder making up a variety of service firms. In terms of respondents company size, approximately 8% were in the "less than $5 million" category, with 12% in the "$5 to $40 million" category, 20% in the "$21 to $40 million" category, and well over 50% in the "over $40 million" category. Average age of the sample was 38.2 years, with a standard deviation of 11 years. The average number of years

in present position was 5.6 years, with a standard deviation of 5.3 years.

Factor Structure

Eiganvalues resulting from the factor analysis indicate that a three factor structure is appropriate (see **Table 1**). The first factor appears to be an interpretable condensation of Wilding and Bauer's two components of risk reduction--competence and trust. However, the remaining two factors appear to split apart the "social compliance" portion of the items into the two components previously mentioned--power and likability.

TABLE 1
FACTOR ANALYSIS
(VARIMAX ROTATION)

Variable	"Competence/Trust" Factor 1	"Power" Factor 2	"Likability" Factor 3
Reputable	.79124	.14463	.10823
Understanding	.74180	.05872	.36673
Qualified	.70027	.49126	.12620
Reliable	.67975	.37859	.22770
Trustworthy	.63185	.11400	.51613
Dependable	.60523	.56138	.22550
Respectable	.51939	.48853	.31212
Powerful	.22004	.84587	-.01718
Authoritative	.13645	.84070	.05858
Knowledgeable	.23424	.65607	.25257
Experienced	.55597	.61015	.00033
Prominent	-.01036	.59920	.54256
Competent	.44690	.52509	.46025
Friendly	.29605	-.03236	.77617
Likable	.38920	.04017	.76167
Attractive	.04985	.31142	.75599
Eigen Value	7.79	1.87	1.25
% Var. Explained	48.7	11.7	7.9

Manova Analysis

Manova analysis revealed a significant main effect for sketch treatments at the p<.002 level (refer to **Table 2**). In contrast to the earlier work of LaTour, Henthorne, and Williams (1989), No significant main effect was observed for gender or significant gender/treatment interaction. Perhaps the commonality of professional background contributed to a more homogeneous perceptual base for males and females within this particular sample. Additionally, none of the measured covariates were statistically significant at the p<.05 level. It appears the perceptions held by this sample of organizational buyers permeate all reported education, age, and time in position backgrounds.

Univariate F-tests (refer again to **Table 2**) indicated that the significant differences between groups pertains to the "power" factor (p<.014) and "likability" factor (p<.009).

Post-Hoc Analysis

Post-hoc analysis reveals black females are perceived as the strongest on the "power" factor, and significantly more so than white females and black males (see **Table 3**). Perhaps the relatively recent emergence of black females on professional sales forces might carry with it a degree of intimidation in the minds of the caucasian sample.

TABLE 2
MANOVA
MAIN EFFECT - GENDER OF RESPONDENT

Test Name	Value	Exact F	Hypoth. DF	Error DF	Sig. of F
Pillais	.06372	2.04184	3.00	90.00	.114
Hotellings	.06806	2.04184	3.00	90.00	.114
Wilks	.93628	2.04184	3.00	90.00	.114
Roy	.06372				

Variable	Hypoth. ss	Error ss	Hypoth. MS	Error MS	F	Sig. of F
Competence/ Trust	2.34518	80.18629	2.34518	.87159	2.69069	.104
Power	.75814	90.44189	.75814	.98306	.77120	.382
Likeability	2.01957	68.56808	2.01957	.74531	2.70972	.103

Main Effect - Sketch Treatment

Test Name	Value	Approx. F	Hypoth. DF	Error DF	Sig. of F
Pillais	.27164	3.05317	9.00	276.00	.002
Hotellings	.34411	3.39007	9.00	266.00	.001
Wilks	.73735	3.24808	9.00	219.19	.001
Roy	.23417				

Variable	Hypoth. ss	Error ss	Hypoth. MS	Error MS	F	Sig. of F
Competence/ Trust	4.72181	80.18629	1.57394	.87159	1.80582	.152
Power	11.02641	90.44189	3.67547	.98306	3.73879	.014
Likeability	9.11187	68.56808	3.03729	.74531	4.07523	.009

Gender by Sketch Treatment Interaction

Test Name	Value	Approx. F	Hypoth. DF	Error DF	Sig. of F
Pillais	.05285	.54995	9.00	276.00	.837
Hotellings	.05433	.53525	9.00	266.00	.848
Wilks	.94783	.54215	9.00	219.19	.843
Roy	.03200				

Variable	Hypoth. ss	Error ss	Hypoth. MS	Error MS	F	Sig. of F
Competence/ Trust	1.94637	80.18629	.64879	.87159	.74437	.528
Power	.72603	90.44189	.24201	.98306	.24618	.864
Likeability	1.08987	68.56808	.36329	.74531	.48744	.692

TABLE 3
POST HOC TESTS (DUNCAN PROCEDURE)*

Factor - "Power"

Mean	Group	Grp 4	Grp 1	Grp 3	Grp 2
-.2490	Grp 4				
-.2358	Grp 1				
-.0183	Grp 3				
.4857	Grp 2	*	*		

Key:

1 - Black male Sketch
2 - Black female Sketch
3 - White male Sketch
4 - White female Sketch

Factor - "Likeability"

Mean	Group	Grp 2	Grp 1	Grp 4	Grp 3
-.3740	Grp 2				
-.2413	Grp 1				
.2127	Grp 4	*			
.3772	Grp 3	*	*		

Key:

1 - Black male Sketch
2 - Black female Sketch
3 - White male Sketch
4 - White female Sketch

*Denotes pairs of groups significantly differentiate the p<.05.

Results on the "likability" factor favors white males. On this particular factor, white males scored strongest. This is followed by white females. White males are significantly (p<.05) stronger than both black males and black females on this dimension while white females are perceived by this particular sample as significantly stronger than black females (p<.05). The results on this factor are a clear indication of a breakout of perceptions along racial lines.

DISCUSSION

Managerial Implications

Initial impressions can monumentally impact the nature, character, and direction of the buyer-seller dyad. Given the significance of this element, it is imperative that sales managers understand the strategic and operational importance of incorporating knowledge of initial impressions into the core of sales training programs. Well-orchestrated sales training programs can address, in various modules, the issues highlighted by the results of the present study.

Sales reps can be taught how to effectively manage and respond to positive and negative initial impressions. This anticipatory mindset allows them to properly prepare for the intricate interaction needed to facilitate the exchange process. More specifically, the results indicate that black females are perceived as being dominant on the power dimension of the scale. If this fact is generalizable to the population, it would indicate that efforts should be undertaken to use this perception of black female sales reps to the advantage of the selling firm. Sales training programs can provide such information.

In the training program segment on development of interpersonal relationship skills, participants can use role playing and other interactive methods to develop the abilities needed to effectively adapt to and cope with the predicted responses of organizational buyers to various gender and racial combinations. If the power perception of black females is the case, then caution must be exercised for them not to be viewed as intimidating and threatening by buyers. Preparation for this can be included in the training effort.

White males score high on the likability dimension. This is consistent with the expectations of the similarity hypothesis. Since a high percentage of organizational buyers are white males, it seems logical that there is greater congruence in terms of perspective, attitudes, and related factors. Information on how sales reps in this category can ably utilize this perception to their advantage can be disseminated in a training program.

Each gender/race combination in the dyad present unique and interesting opportunities to more fully understand the intricacies of the relationship. Some of the above highlights, address some of themore noteworthy findings of the current study.

As the complexity of buying and selling intensifies, it becomes essential for both parties to move expeditiously to proactively manage the relationship and minimize dysfunctional conflicts. By thoroughly understanding the critically of initial impressions on ultimate sales, managers can employ this tool to its fullest extent.

Sales managers and training experts are contantly in search of ideas, techniques, and approaches in the behavioral sciences that may provide their sales reps with a competitive edge. The inclusion of initial impression management can positively influence performance and results. These suggestions are consistent with the Churchill, Ford, and Walker (1985) consideration of using the behavior modeling approach to sales training. The essence of this training perspective is learning through observation of others. As sales reps observe phenomena, e.g. initial impressions of organizational buyers, they are in a better position to manage and take appropriate acton as warranted by the situation.

SUMMARY

This study focuses on understanding the initial impression component of the traditional buyer/seller dyad. Initial categorizations and impressions attributed to organizational sales reps by organizational buyers is the thrust of the research effort. Findings substantiate the idea that buyers do have varying impressions of individuals based on gender and race.

From a managerial perspective, understanding the importance of these initial categorizations on sales performance is essential. In addition, the management of this interactive process can add to the effectiveness of the sales force. As managers seek higher levels of performance under increasingly difficult conditions, initial impression analysis and usage should be a positive element in developing a competitive sales program.

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REVISITING THE FAMILY LIFE CYCLE: MODIFICATIONS AND IMPLICATIONS

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Abstract

The family life cycle often has been considered a viable segmentation tool. The volatile changes throughout the 1970's and the 1980's in the composition of the American household make the traditional family life cycle quite obsolete as a segmentation tool. This paper explores the major demographic shifts in light of their impact on the family life cycle. A revised family life cycle, that takes into consideration the emerging demographics, is also presented.

Introduction

Drastic changes throughout the 1970's and 1980's in the composition of American households have become extremely relevant to marketers and academicians interested in the profound effects these changes are having on consumer buying patterns. Quite notably, a steady decrease in the perpetuation and formation of marriages is evidenced as more people choose not to marry or marry at a later age and then divorce. As a result, many currently ascribed methodologies for target market development and segmentation may prove inadequate and even obsolete as the convergence, dissolution and/or reformation of households becomes more of society's norm than the traditional life-long nuclear family (Footlick 1990).

Faced with these changing demographics, currently formulated parameters of the family life cycle (FLC) as and indicator of household behavior and consumption are not flexible and complete enough to accommodate metamorphic households which deviate from traditional FLC stages. This paper explores recent demographic trends which highlight the inadequacy of existing family life cycles and which support consideration for a revised FLC that incorporates additional household stages.

Never before in American history have we evidenced such widespread variances in life cycle stages which limit current parameters. The traditional FLC provides only for a logical sequence of evolvement which consists of two single people who marry, raise a family, and remain married until the death of a marriage partner. Unlike this scenario, today's families often remain childless and may encounter divorce and then remarry or live in single-headed households. Growing numbers of individuals may also postpone or decide against marriage altogether, choosing to live in solitude or cohabitate. Marketers who develop target segmentation based on the FLC concept must be able to identify and adapt to these demographic phenomena in order to better position products and services to relevant targets (Sternlieb et al 1982).

Changing Household Structures

The decade of the 90's will continue to reflect dynamic households which will consist of an increasing number of individuals who do not fall under the auspices of a traditional nuclear family. Demographic trends strongly indicate that new households will be comprised of more singles, seniors, divorcees and single parents, and fewer married couples, remarried couples, and children.

The nuclear family's predominance in American society is being replaced by more couples who decide against having children or who divorce and either remarry, remain single or cohabitate. Of the couples who divorce and remarry, 40% of these remarriages consist of "blended" families which contain stepparents, stepchildren, and/or children born of the new marriage. Also a growing number of single individuals prefer to remain single and never marry and may choose to cohabi-tate with another single person.

Key trends in changing household composition and lifestyles have emerged. These trends include: 1)More young people are postponing or deciding against marriage; 2)The divorce rate is increasing and families are becoming more "disjointed"; 3)Dual income families are increasing; 4)Mother-only families are on the increase and are often economically handicapped; 5)Po-verty levels among households are increasing; 6)Couples are postponing or deciding against childbearing; 7)Cohabitation is more accepted; and 8)The elderly segments are increasing as baby boomers and their parents grow older. Each of these segments reveal pivotal statistics and emerging trends which affect the current FLC as a valid segmentation tool for marketers. (Sternlieb et al 1982).

The age at first marriage is increasing while marriage rates are declining and divorce rates increasing. The increase in divorce rates appears to be influenced greatly by the growing number of persons who live longer, divorce sooner, then remarry at an earlier age and divorce again. At the turn of the century, most remarriages occurred after the death of a spouse and divorces were very uncommon. With longer life spans and more liberal lifestyles however, the balance has shifted from remarriage upon widowhood to remarriage after divorce. In 1978, 87% of women who remarried were divorced, while only 13% were widows, with similar percentages occurring in the male segment. In 1950, 25% of married couples divorced after 25 years of marriage, compared to 1977 statistics in which 25% of married couples divorced after only 7 years.

"Blended" families which consist of "his", "her" and/or "our" children face traumatic readjustments as children and parents cope

with acceptance of the newly formed family. Children, recovering from the divorce of their own parents and struggling with conflicting identities and roles, are now forced to adjust to a new family quite different from their own. A step-family is a family born of loss and most often will not be able to recreate the original nuclear family. When these survivors form a new family, reactions can be volatile. Children and parents in these marriages often have a difficult time adjusting to new environments, responsibilities and roles (Spanier and Furstenburg 1984).

Mother-only families face the additional stress of securing child care and receiving inadequate, if any, child support. Women who did not work while married, worked part-time and watched their children, or enjoyed dual incomes are suddenly faced in divorce with child care expenses that devour a large portion of total earnings. This can place an excessive burden on purchasing allocations.

The economic plight of these mother-only families is further augmented by the dislocation of households and ensuing emotional discord which divorce precipitates. Changes in residences and neighborhoods, employment and schools can be a traumatic experience for mothers and their children who must adapt, not only to the shattered family, but new surroundings (McLanahan and Booths 1989).

Studies indicate that single mothers encounter psychological distress more frequently than do married women or single women without children. The additional pressures exerted on many of these women can decrease emotional well-being and induce severe stress. Worries of money, shelter, disciplinary and providing concerns, unpleasant dealings with ex-spouses, and loneliness often overshadow positive thoughts and experiences which may seem too few compared to the omnipresent worries they must face. (Crispell 1989; Dornbusch and Strober 1988).

Another segment of the traditional FLC which merits attention is the singles who are waiting longer to marry or who decide against marriage and instead, may choose to cohabitate. Accustomed to "getting their way" with parents, a growing number of adolescents and young adults are rejecting independence from the nest. They are taking longer to complete college, start careers, marry and begin families. Faced with excessive housing costs, many will return to the nest and live with parents who often do not charge for food or lodging. Handed computers in pre-adolescence and cars when teenagers, many are finding it increasingly difficult to leave the fold behind. (Goldscheider et al. 1987; Cooney and Uhlengerg 1989).

Today's youth seems unnerved by and unready for their entry into adulthood. Accustomed to relative financial freedom and unlimited options, these youths fear that marriage and career will require extensive commitment and compromise which may jeopardize their unrestricted lifestyles. These young adults are interested in immediate gratification and are becoming increasingly accustomed to getting what they want when they want it. The "premature affluence" they enjoy through part-time employment and parental support is giving many an unrealistic level of discretionary income which inflates their perceptions of how their lives should be. In order to continue enjoying these comfortable lifestyles they have become accustomed to, many will remain at home long after parental strings to the nest are normally severed (Goldschneider et al 1987).

Although a large percentage of youths prolong residences with their families, a growing number of youths are increasingly leaving the parental home and establishing a separate residence before marriage, thus eroding an older life cycle pattern in which most children remained with parents until they formed a new family (Goldshneider et al 1987). This growing trend in leaving the nest before starting their own nest increases the time span between the family of origin and the family of procreation.

Living together without marriage has gained acceptance, especially among younger couples and some older (empty nest) couples, although the psychological and economic reasons for the two groups differ. In 1977, there were 957,-000 unmarried couples in the U.S. While these couples represent only 2% of the total U.S. "couple households", they constitute an 83% increase over the number of unmarried couples in 1970. (Gaulden et al 1985; Gaidis et al 1986).

The Empty Nest stage has also increased significantly in the past 85 years from approximately 1.6 years to 13.9 years. This means that couples who marry "for life" may spend more than one-third of the marriage alone after their children have left the nest (Glick 1977). Growing numbers of elderly who live alone are choosing to cohabitate instead of marrying to avoid an economic reduction of retirement benefits.

Due to the emergence of these household structures which deviate from the traditional nuclear family, the current FLC as a predictor of consumer buying patterns and preferences is severely limited and outdated. A revised family life cycle will therefore be presented and developed in the next section in which several new stages will be introduced.

Updating the Family Life Cycle

An extension of the existing family life cycle to include life stages outside of the nuclear family may provide useful direction for marketers who are currently limited by an insufficient family structure which does not consider deviations from the traditional FLC concept.

The modified cycle shown in exhibit 1 begins with a Young Single. While some may progress

to the Newly Married stage, others may remain single for many years (Older Single) and may then eventually decide to marry (Newly Married, cohabitate with another single person (Sensate Couple) or decide to remain unmarried (Never Nest). As this unmarried person nears retirement, he/she may decide to live with another single person for reasons which include companionship, economic advantage and medical well-being (Companionship Couple).

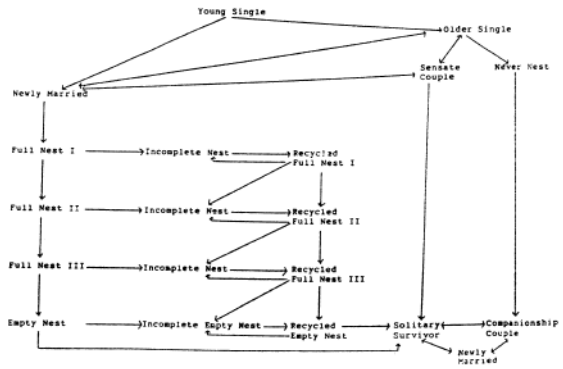


EXHIBIT 1
PROPOSED FAMILY LIFE CYCLE

Couples who marry may divorce at any stage throughout the Newly Married to Empty Nest stage. If the couple divorces before having any children, they will move into an Older Single stage. Persons in this stage may alternate between the Older Single and Sensate Couple stages several times and then decide to remarry.

Family members of divorces involving children will move into an Incomplete Nest which may consist of single adults or single-headed households with children. Families who remarry will form a Recycled Nest and will either proceed down the life cycle or will divorce again at some later point and once again become Incomplete Nests. In the last stage of the life cycle, a Solitary Survivor may remarry (Newly Married or decide to cohabitate (Companionship Couple).

Marketing Implications

The updated family life cycle presented in this paper differs significantly from the traditional version. Marketing implications of a revised FLC which incorporate additional stages will significantly validate the FLC as a relevant segmentation tool.

Growing numbers of individuals are remaining single, marrying later, and living longer, thus extending the Younger single, Older Single and Solitary Survivor stages. According to demographic researchers (Graham and Hamdan 1987), 60% of new households by the year 2000 will consist of single people, either living alone or with other non-married persons. Of the remaining 40%, married couples will represent 25% of all households and 15% will be attributed to single-parent households. These single households will consist of people who prolong or decide against marriage and an increasing elderly population as baby boomers and their parents live longer.

Singles, young and old, represent extremely important segments to marketers. Not restrained financially by child care responsibilities, these singles spend sizable portions of their incomes on personal products and services including beauty/health care, fashion, entertainment and travel. These singles have more time for comparison shopping and tend to be more discriminating shoppers than do their married counterparts with children. These individuals also buy durables such as furniture, computers, and new cars, and are planning towards their retirement through insurance, investments and savings (Allen 1989).

Buying patterns of Older Singles do differ however, from Young Singles. Because they have matured in attitude and lifestyle, these buyers purchase more products suited to their own personal tastes than items which are currently in fashion. Older Singles are more interested in making a unique statement about themselves than seeking recognition from peers. Singles interested in active social lives are targets for weekend getaways and vacations. They are more cost conscious, however, than Empty Nesters and prefer less expensive excursions than do older couples (Quinn 1990).

Sensate Couples differ significantly from married couples. Temporal in nature, these couples most often live together for shorter time periods (1-2 years), (Gualden et al 1985). Their purchases reflect these temporary relationships as larger purchases for homes, cars and computers are financed individually and not jointly. Because their lifestyles are more liberal and innovative than their married counterparts, these cohabitants are more interested and willing to accept a new idea or try a new product.

Unrestrained by children's demands, Companionship Couples seek financial, emotional and physical well-being. Many will not marry because of a decrease in retirement benefits that often accompanies a marital union. Those who are in good health will spend their money on travel and leisure items and allow themselves to purchase spontaneously as long as their pocketbooks permit. Couples who are not so blessed with good health and adequate finances will spend proportionately more for medical and home related products and services. Their ability to take care of each other relieves pressure from their children who are busy raising their own families.

With the disruption of the nuclear family and its convergence into Incomplete or Recycled

Nest, significant short and/or long term effects on family purchases are relevant. This is especially common in single-headed households where the family most often must readjust to lower incomes and in many instances will live in poverty. Remarriages often bring about temporary alterations in spending but as family members adjust to each other and the new household, spending behavior should begin to resemble those of the original nuclear families (Dou-thitt and Fedyk 1988; Spanier and Furstenberg 1984).

Marketing strategies which concentrate on families will focus particularly on those with working parents and their increasingly independent children. Services which provide care giving functions will continue to gain in popularity. Supermarkets are becoming "superstores" that sell everything from food to baking services to home videos. Businesses, realizing the necessity to accommodate parents who work, are developing policies and programs geared towards easing the child care dilemma. These include flex time, in-house child care, and "cafeteria" type benefit packages that subsidize child care costs. Elder care concerns are also being considered by employers as growing numbers of workers must provide care for dependent parents (Finlay and Silberver 1989; Buglass 1989).

The older segments, Empty Nesters, Solitary Survivors and Companionship Couples are living longer. Marketing implications for this change in the family life cycle are significant as empty nester pocketbooks are freed up for longer time periods. Without the continued necessity to contribute to children's welfare, these older consumers are now able to spend more of their income and savings on leisure and luxury items. Because aging Americans are better educated than any prior generation, their demands will be much more discriminating and specific. The ability to cater to these individuals will be the foremost challenge in the coming decades to marketers.

For those elderly who continue to live longer and enjoy active lifestyles, entertainment, leisure, beauty, health care, and family oriented products and services will continue to rise in popularity. Accustomed to stimulating and social lifestyles and immersed in a "youth mentality", this vast segment will demand a larger portion of health and personal care products than any other group in U.S. history (Buglass 1989).

The decrease in mortality, while allowing families to enjoy lengthy relationships with older family members, has increased the number of aged who depend financially on their families and on public and private programs. American families will be hardest hit in coming years by this segment. Decreasing mortality combined with the vast numbers of baby boomers who will hit retirement in the early 2000's, will weigh heavily on their families who must manage finances and busy schedules to provide not only for their children's needs, but their parents as well.

Summary and Conclusions

The "changing of guards" in American demographics and lifestyles is heralding a dynamic swing in household composition. These changes and many others continue to evolve as further shifts in the number and diversity of households develop. A large majority of children born in the 1990's and into the next decade will encounter dynamic life cycle progressions consisting of:

- living with both parents
- experiencing a divorce and living with the mother
- experiencing a remarriage and living with the mother, stepfather and/or step brothers/sisters
- living alone for awhile after leaving the nest
- getting married
- having children
- getting divorced
- living alone or supporting children
- getting remarried
- and living alone again after the spouse's death.

Unlike the above scenario, primary limitations of the existing family life cycle exclude any deviations from traditional family development. The existing life cycle provides for a young adult who marries shortly after leaving the home of origin and then passes through graduated phases of parenthood and lives alone in later years until death. Today's single person, however, appears more interested in personal growth and financial well-being. Thus, singlehood is now becoming a life cycle stage in its own right, rather than a transitional one which lasts fleetingly. Increased freedom in behavior, greater acceptance of cohabitation, and less pressure to marry at a younger age and have children are providing alternative lifestyles which for many are no longer temporary, but preferred.

Former traditional roles of women as wife and mother are being transcended by women who prefer to work outside of the home and may bear fewer children or decide to remain childless. As many of these women revel in their ability to earn a decent living and enjoy doing so, marriage and children are becoming options and not requirements. As the economic power of these women grows, divorce also becomes a more viable alternative.

Men and women alike have embarked upon an unbounded search for self-awareness and gratification that is contributing to higher divorce rates, single-headed and remarried households as well as a growing number of singles who never marry and cohabitate. With many marriages and remarriages ending in divorce at much sooner intervals, the number of available marriage partners increases, which adds to the probability that more divorces will occur as individuals remarry and divorce again.

The dislocated families created from these divorces typically experience traumatic readjustments in living patterns, relocation, lower incomes, reduced levels of happiness, and increased behavioral problems with children. Each of these changes has far-reaching effects on household buying patterns.

The increasing departure of households from the traditional nuclear family provides gaps in the current life cycle structure. As a result, appropriate alterations and additions to the family life cycle must be incorporated into the existing structure. Through a restructuring of the family life cycle and greater emphasis on original stages which are encountering significant changes (Singles, Empty Nester and Sole Survivor), marketing efforts can become marketing successes for years to come.

References

A complete list of references may be obtained from the authors.

PROBLEM RECOGNITION: THE SYNERGY OF A MULTI–METHOD APPROACH

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Abstract

Problem recognition is the first step in the consumer decision making process. Yet very little is known about what triggers problem recognition or how to measure it. This paper reviews two different conceptualizations of problem recognition, suggests that a synthesis of the two approaches would provide a fuller understanding of problem recognition than either approach taken alone, and provides a preliminary empirical test of the synthesized approach.

Introduction

The consumer decision making (CDM) process is anchored in need/problem recognition. Yet most academic and textbook discussions of decision-making give short shrift to problem recognition. There is good reason for this cursory coverage. Very little is known. Discussions tend toward generalized lists of factors which influence problem recognition (e.g. culture, motivation, personality), or of factors which contribute to consumers' recognizing a problem in the first place (e.g. out–of–stock situations). But there is little consideration of how problem recognition works, of specific triggers, or of how to directly influence it.

Textbook discussions of the other steps in the consumer decision making process, however, are much longer and involved. A review of marketing literature reveals why. There are considerable bodies of literature on consumer information search (for example, Bettman 1979; Bloch, Sherrell and Ridgway 1986; Kiel and Layton 1981; Punj and Staelin 1983), on consumer choice and the evoked set (for example, Biehal & Chakravarti 1983, 1986; Johnson and Russo 1984; Laroch, Rosenblatt and Sinclair 1984; Miller & Ginter 1979), on evaluation of alternatives (for example, Alpert 1971; Bettman & Sujan 1987; Johnson 1984), and on feedback (for example, Churchill and Surprenant 1982; Oliver 1980; Oliver and DeSarbo 1988; Tse & Wilton 1988; Westbrook 1980). By contrast, comparatively little has been written about problem recognition. It is the purpose of this paper to review two conceptualizations of problem recognition, and to provide a preliminary test of an approach which represents a synthesis of the two.

Background

The father of the consumer decision making process would seem to be John Dewey (1910). He addressed the process by referring to an individual's having a "felt difficulty" or need. This need was the impetus for one to engage in what he called "reflective thinking," stages of which are quite similar to the steps in the standard CDM process. He suggested that felt needs arose from the "conflict between conditions at hand and a desired and intended result ..." (p.72) or from the "incompatibility of a suggested and (temporarily) accepted belief... with certain other facts ... pulling the mind to different and incongruous conclusions" (p. 73). He also suggested cases of "striking novelty or unusual perplexity" (p. 73).

Once the difficulty was felt, the individual went about searching for a solution in a rather precise, cognitive, and rational manner. Dewey drew a distinction between "reflection proper, or safeguarded critical inference," and "uncontrolled thinking" (p. 74). It is the controlled process which permits an individual to suspend judgement until the nature of the problem and its solution have been investigated. What Dewey described is analogous to the extensive problem solving process for high involvement products (c.f. Howard and Sheth 1969).

Then, in 1983 two marketing academicians developed hypotheses about problem recognition. Bruner investigated the different problem recognition styles which people exhibit over time. Sirgy investigated ways to predict the strength of problem recognition. Both researchers acknowledge their debt to Engel, Kollet, and Blackwell who in their 1968 text provided the definition of problem recognition from which both researchers work: the "perception of a difference between the desired state of affairs and the actual situation sufficient to arouse and activate the decision process." The two approaches are discussed below in greater detail.

Bruner

Bruner (1983, 1985, 1986, 1987; Bruner and Pomazal 1988) suggests that consumers differ in their approaches to problem recognition. He hypothesizes that there are two types of consumers: Actual State (AS) types, for whom problem recognition is triggered by changes in their actual state, and Desired State (DS) types, for whom problem recognition is triggered by changes in their desired state. For either type, problem recognition occurs when homeostasis is upset, but the trigger for recognizing the imbalance is different.

Actual State types do not perceive a problem or need arising until the product they are using actually begins to perform in an unsatisfactory manner. Then, and only then, are they motivated to do something about it. For AS types, then, problem recognition is triggered by the perception of something "gone wrong" with the actual state. Desired State types, on the other hand, perceive a problem or need when they perceive alternatives in the marketplace which are new or different. For them, problem recognition is triggered by the perception of something new and/or different which is desirable. Of course, these two types represent extremes. Not everyone is completely an AS or a DS type for all products. Further, most people probably exhibit problem recognition styles somewhere in between.

Bruner's theory has been tested for clothing and an eight–item scale for measuring whether someone is an AS or a DS type has been developed. The scale has been validated only for clothing (Bruner 1985, 1987). Bruner has further hypothesized (1986, 1987) that DS types are more fashion conscious, shop more often and shop for enjoyment, are the types for whom problem recognition is more easily triggered, and are shopping opinion leaders.

Sirgy

Like Bruner, Sirgy (1983, 1987; Sirgy and Kassem 1982) works with the idea of homeostasis being out of balance as the trigger for problem recognition. Unlike Bruner, however, Sirgy works from within the social psychology field known as social cognition: theories which explain social behavior using cognitive constructs (Sirgy 1983, 1987). This approach has its roots in psychology and communication theories which are well known to marketers: expectancy-value, social comparison, attribution, consistency, and belief centrality.

For Sirgy, there are two types of need recognition: problem recognition and opportunity recognition. With problem recognition, the consumer compares perceptions of an actual, existing product with perceptions of some referent product. With opportunity recognition, the consumer compares perceptions of a new, desired product with an evoked set of attributes and/or benefits. Sirgy concentrates his work on problem recognition.

He defines problem recognition as a dissatisfaction state; an affective state determined by the comparison of current product with desired product (1983, p. 29). Drawing from the satisfaction/dissatisfaction literature, he posits four possible states of congruity or incongruity:

- positive incongruity—like positive disconfirmation—(perceived actual has a positive valence and referent has a negative valence)
- positive congruity—like positive confirmation—(both perceived actual and referent have positive valences)
- negative incongruity—like negative disconfirmation—(perceived actual has a negative valence and referent has a positive valence)
- negative congruity—like negative confirmation—(both perceived actual and referent have negative valences).

The degree of discrepancy between the valence of the perceived object and the valence of the referent, or standard for comparison, determines the strength of the problem recognition. A 1982 study (Sirgy and Kassem) provided support for the idea that problem recognition is strongest with negative incongruity, next strongest with negative congruity, then positive congruity, with no problem recognition being present with positive incongruity. Further these relationships were strongest under conditions of high uncertainty.

Thus, two approaches to a fuller explanation of problem recognition have been proposed, and preliminary empirical testing of each has been reported in the literature. While both researchers have acknowledged the potential synergy which might arise from a combination of the two approaches (Bruner 1985, 1987; Sirgy 1987), work on a combined approach has not been reported.

The Study

Is a synthesis warranted? Conceptually and theoretically, the two approaches are complementary. First, both are grounded in the idea that an imbalance in psychological homeostasis triggers problem recognition. Second, both conceptualize the problem recognition construct in the same way, making use of the Engel, Kollet and Blackwell definition. Third, each approach helps fill some of the gaps left by the other. Sirgy focuses on the cognitive determinants of problem recognition in a specific situation; Bruner focuses on a consumer's general longitudenal style. Having information about either aspect is not likely to be as informative as having information about both. For example, simply knowing the problem recognition style provides insufficient information for marketers. Problem recognition is not an absolute, but a *relative*, state. The discrepancy between actual and desired must be of sufficient magnitude to activate the decision process. Accordingly, knowing a consumer's (or target market's) problem recognition style is insufficient to determine whether problem recognition will occur. Marketers need some measure of the strength of any perceived discrepancy. An approach which represents a combination of both Bruner's and Sirgy's conceptualizations of problem recognition should provide a more robust explanation.

Hypotheses

H1: Desired State types will evidence stronger problem recognition than will Actual State types for all four congruity states. Sirgy measures the strength of problem recognition by evaluating the comparison of a current product with some referent product. According to Bruner, however, while AS types may be aware of differences between the actual product and alternatives, the perception of the differences does not trigger problem recognition. Further, AS types do not search for information about alternatives until the product being used begins to malfunction. But Sirgy does not address how to determine what constitutes a malfunction significant enough to activate this process. For example, some fill their gas tank when the gauge indicates half-full; others don't stop for gas until the gauge reads empty. Sirgy offers no means for measuring this sort of difference. Hence, AS types will evidence weaker problem recognition than DS types will for all four congruity states.

H2: Desired State types will show a difference in strength of problem recognition depending on the congruity state. Bruner hypothesizes that the perception of desirable new and/or different alternatives in the marketplace triggers problem recognition for DS types. Of course, the difference must be of sufficient magnitude for the individual to "sit up and take notice." Accordingly, DS types will be expected to exhibit varying strengths of problem recognition for the different congruity states. Specifically, DS types will evidence relatively high problem recognition for the negative incongruity state (the positively evaluated referent is in sharp contrast the negatively evaluated actual); relatively high to moderate problem recognition for the positive incongruity state (the cognition of a difference may trigger problem recognition—Bruner (1986) suggests that problem recognition is more easily triggered for DS types); relatively moderate to low problem recognition for the positive congruity state (even though both actual and referent are positively evaluated, paying attention to clothes may trigger problem recognition); relatively low problem recognition for the negative congruity state (nothing new, different, or desirable is perceived).

Methodology

A questionnaire about clothing was administered to 152 students at a large mid-Atlantic university. Clothing was chosen because it is the only product for which a problem recognition scale has been developed. Clothing also is a product familiar to students. Further, clothing is a product to which some students may be expected to respond as AS types (either because of financial necessity or a lack of interest in fashion), and some as DS types.

Students were chosen because they represent a convenience sample of consumers of clothing. Further, empirical tests of the hypotheses involved utilized student samples (Bruner 1986, 1987; Sirgy 1987). Finally, this study was exploratory.

Students were asked to respond to Bruner's eight–item AS/DS scale and then to respond to one of four congruity state scenarios which placed them in hypothetical states of positive or negative incongruity, or positive or negative congruity. Following Bruner's methodology, students were asked to indicate how well each statement described them. Each statement was measured on a seven-point semantic differential scale, end anchored with "strongly disagree" and "strongly agree." The ratings for each respondent were totaled, then divided by eight to arrive at their problem recognition style score. Following Bruner, respondents scoring above "4" are DS types; respondents scoring "4" or below are AS types.

Following Sirgy's methodology, students were asked to respond to a particular congruity state scenario by reporting

how they would feel toward the clothing. Once again, semantic differential scales were used, but this time measured from one to ten. One statement was anchored with "need to have new clothing" and "don't need to have new clothing." The other was anchored with "need to replace existing clothing" and "don't need to replace existing clothing." To avoid problems with response style, the end statements were counterbalanced. A respondent's Problem Recognition Index (PRI) Score is the average of the two responses.

Students were also asked for demographic information: age, sex, ethnic background, marital status, employment status, and income. The rationale for these questions was two-fold: first, to determine if any observed differences are due to demographic variables; second, to test Bruner's (1987) finding of some differences between AS and DS types by sex and ethnic background.

Results and Analysis

The questionnaire was administered to students in the undergraduate and graduate introductory marketing classes.

Bruner's Problem Recognition Type Scale

After un-counter balancing item three, student responses to the eight-item AS/DS scale were computed. Using Bruner's cut-off point of "4," 62 students could be classified as AS types and 90 as DS types.

Sirgy's Problem Recognition Index (PRI) Score

To compute the PRI Score for the congruity state scenario, the first semantic differential scale was un-counterbalanced and the correlation between the two was computed. While the correlation was significant at the .01 level, the absolute value was only .5744. Because of this low correlation, the response to the first statement alone was taken as the PRI Score for the congruity state scenario. (One explanation for the low correlation may be respondents' misreading the end-anchors for the statements. If that occurred, then the first response would be the "truer" one.)

Differences Among Congruity State Scenarios

To determine if the results from this study were consistent with those Sirgy has reported (1987), a one-way analysis of variance procedure was performed. The dependent variable was the PRI Score. The independent variable was the congruity state scenarios (four different scenarios). Sirgy hypothesized and found that mean responses were highest for negative incongruity, followed in descending order by negative congruity, positive congruity, and, finally, positive incongruity and that these differences were significant at the .001 level. As can be seen from **Table 1**, the results of this study were not the same. The mean response for the negative incongruity scenario was the highest, but it was followed, in descending order, by positive incongruity, positive congruity, and, finally, negative congruity — these last three being in reverse order from Sirgy's results.

TABLE 1
MEAN RESPONSES FOR CONGRUITY SCENARIOS

Negative Incongruity	4.92
Positive Incongruity	4.74
Positive Congruity	4.42
Negative Congruity	4.26

A second difference between these and Sirgy's results is that Sirgy found statistically significant differences among the mean responses to the different congruity state scenarios. Here, the one-way analysis of variance results indicated that there were no statistically significant differences in the mean responses (p-value of .727).

While it is pleasing that there is some consistency of results (the negative incongruity scenario rated highest), it is disturbing that the rest of the results were not consistent. One possible explanation is that Sirgy's study was a repeated measures research design, with subjects being asked to respond to congruity state scenarios for four products (each scenario was of a different congruity type). The repeated measures may have sensitized respondents to the type of evaluation they were being asked to make. Further, three of Sirgy's products (automobiles, typewriters, and houses) were of the type to have more obvious differences in style and condition than clothing, which was used in this study. Finally, the results are consistent with the hypothesized ordering index scores for DS types. Earlier analysis revealed that almost 60 percent of the sample for this study were DS types; hence analysis was continued.

Tests of Hypotheses

H1. To test the first hypothesis that DS types would evidence stronger problem recognition than would AS types, a two-way analysis of variance procedure was performed. The dependent variable was the PRI Score. The independent variables were the congruity state scenarios and problem recognition style score. The "regression" or "unique" option for computing sums of squares in SPSSX was selected because of the unbalanced design. Results are reported in **Table 2**.

As expected, there was no main effect for congruity state scenarios (p-value of .522), but there was a main effect for problem recognition style (p-value of .005) when averaged over all scenarios. Comparisons between the two styles indicate that the problem recognition score for DS types is 1.33 points higher than the problem recognition score for AS types, with an error of no more than .895 points, at the .05 significance level. Thus, H1 is supported.

TABLE 2
TWO-WAY ANOVA RESULTS
(For All Students)

	F	Sig. of F
MAIN EFFECTS		
Congruity State Scenario	.754	.522
Problem Recognition Style	8.297	.005
INTERACTION EFFECTS		
Scenario & Styles	.054	.983

H2. To test the second hypothesis, that DS types will show a difference in strength of problem recognition depending on the congruity state, analysis of variance results were examined, this time considering interaction effects. As reported in **Table 2**, however, interaction between congruity state scenario and problem recognition style was not statistically significant (p-value of .983). While there are differences in cell means for DS types, depending on the congruity state, the differences are not statistically significant (see **Table 3**).

To test for the ordering of the congruity state scenarios for DS types, a one-way analysis of variance procedure was performed. The dependent variable was the PRI Score; the independent variable was the congruity state scenarios. As shown in **Table 3**, the ordering of the variables is as hypothesized, even though the results are not statistically significant (p-value of .505).

TABLE 3
ONE–WAY ANOVA RESULTS
(For DS Types)

Negative Incongruity	5.70
Positive Incongruity	5.37
Positive Congruity	4.91
Negative Congruity	4.57

(p-value of .505)

Demographics

The demographic variables were also investigated to determine if they influenced the responses to the congruity state scenarios. Bruner (1987) had found that both sex and ethnic background were factors separating Actual State and Desired State types. One-way analysis of variance was performed for all the demographic variables. Only two main effects were significant at .05 or better: age and ethnic background. No interactions were significant. These two variables were then used as blocking variables. Since the demographic variables were not intervally scaled, and since there was no certainty of a linear relationship between any of them and the dependent variable, PRI Score, ANCOVA was not appropriate.

Multivariate Analysis of Variance, with the block design specified, was run. SPSSX assumes that the design is unbalanced and thus no special method for determining sums of squares was requested. Results are reported in Table 4. In general, the use of the two blocking variables improves the results. First, continuing to lend support to H1, the mean PRI Score is still significantly different for problem recognition style, when averaged over all congruity state scenarios (this time at the .055 significance level). Second, while there still are no significant differences by congruity state scenario, the differences are much closer to being significant than before (p-value of .169 as opposed to the previous p-value of .522), thus lending weak support to H2. Interaction between congruity state scenarios and problem recognition style still is insignificant, but the p-value does improve somewhat (.726 instead of .983).Thus while H2 is not supported, statistically, evidence does warrant further investigation of the relationship between problem recognition styles and PRI Scores.

TABLE 4
MANOVA RESULTS
(Blocking by Age and Ethnic Background)

	F	Sig. of F
MAIN EFFECTS		
Congruity Scenario	1.71	.169
Problem Recognition Style	3.76	.055
INTERACTION EFFECTS		
Scenario & Styles	.44	.726

Discussion

This study is the only known attempt to conceptually and empirically synthesize Bruner's and Sirgy's approaches to problem recognition, with the goal of providing a fuller understanding of the process. As hypothesized, statistically significant differences between AS and DS types were found for the four congruity states. That statistically significant differences in mean score for the different congruity states for DS types were not found is disappointing. The disappointment is tempered, however, by the finding that the ordering of the strength of problem recognition for DS types was consistent with the hypothesis.

Four factors could account for the lack of significant differences. First, the study was constrained to the use of clothing. Scales for measuring problem recognition styles for other products were not available. Thus, while the scale which was used had been tested for clothing, the congruity state scenarios had not. Secondly, Sirgy's work with congruity state scenarios tested products such as cars, typewriters, and houses and focused on an appraisal of their functional abilities. Sirgy's congruity state scenarios asked respondents to compare the functioning of an actual product and a referent product. This approach had the effect of forcing problem identification (and determination of the magnitude of the problem) to be based on functional, not social or psychological, considerations. Most clothing adequately performs its "function" of covering the body. Perceived differences in clothing, which would trigger problem recognition in Desired State types, would be expected to be based on differences in styles or fashions. Importantly, these types of perceptions are not as likely to be uniform or universally influenced across a population. A third factor, consistent with the second, may be that since the congruity state scenarios had not been tested for clothing, it is possible that what was being measured was not the influence of the congruity state, but rather reference group influence. (Though, of course, reference group influence has always been considered one of the factors which affect problem recognition.) Finally, having only a single–item measure for the PRI Score certainly may have confounded the results (Churchill 1979).[1]

Future research should focus on developing scales for other products as well as on developing ways of measuring congruity states on bases other than functional capabilities. Once these measures have been developed and tested, the synthesis of the two problem recognition approaches should not be confounded by methodological problems. Further investigation of the differences in problem recognition for DS types is also warranted. Future research could determine if there are differences in congruity scenarios for "strong" versus "weak" DS types. This investigation may have to await further scale development, however. At present Bruner has only validated a break point in his scale to separate AS from DS types. No work to validate finer distinctions has been reported. Additionally, future study should focus on ways to measure problem recognition for AS types. We do not have an adequate understanding of what triggers the perceptions that a product on its own merits is inadequate. Future research should also focus on external validity. Both Bruner (1987) and Sirgy (1987) have acknowledged the need to test their conceptualizations on populations other than students.

Eventually, once initial understanding of AS and DS styles of problem recognition are better understood, research should explicitly incorporate studies of influencing factors, such as reference groups, marketing communications, culture, etc. Because problem recognition is often need recognition, one potentially fruitful line of inquiry may be an understanding of how different groups define needs, of what products are perceived to be "necessary." Also a fuller understanding of how products become desirable would be helpful.

In sum, problem recognition is a little understood process. But its importance to a fuller understanding of consumer decision making should not be overlooked. This study is a first step toward a deeper conceptualization of problem recognition by combining two different approaches.

[1]The author would like to thank the anonymous reviewers for these last two considerations.

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AN ALTERNATIVE APPROACH TO CELEBRITY SPOKESPERSON SELECTION

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Abstract

Celebrities are commonly used as spokespersons, with perhaps as many as one in five television commercials using them. Recently published research has suggested that the "matching", or congruence, of the advertised brand and the celebrity is important for generating a favorable attitude toward the advertised product. This paper presents an alternate approach based on the availability-valence hypothesis, and the findings from a *pilot study* supporting this approach.

Introduction

Practitioners continue to debate the advantages and disadvantages of using celebrities as spokespersons, as reflected in the pages of **Advertising Age** (Bernstein 1984; Forkan 1980), **Business Week** (1984), **Madison Avenue** (1984), and the **Wall Street Journal** (King 1989; Lipman 1991). Similar interest in this enduring topic has been exhibited by academicians (Atkin and Block 1983; Kamins 1990; Misra 1990; Ohanian 1990). With the proportion of commercials using celebrities perhaps being as much as one in five (Motavalli 1988), and with some of them charging millions of dollars for their services, this interest is not surprising.

Much of the research in this area has focused on characteristics of the spokesperson, like physical attractiveness, expertise, and source credibility (e.g., Ohanian 1990; Patzer 1983), while practitioners have emphasized the importance of a relationship between the brand and the celebrity, that is, having a matchup between the personality or attributes of the spokesperson and the theme of the campaign (Forkan 1980; Marshall 1987).

In an interesting recent study, Misra and Beatty (1990) have experimentally examined the matchup hypothesis. This study draws on the social cognition literature for three theoretical models which provide differing predictions, and empirically tested them. Findings from this study supported the filtering model (Taylor and Crocker 1981), and concluded that when the product and celebrity are matched (or, are "congruent") it leads to higher recall as well as more favorable attitudes. The filtering model of schematic information processing states that incoming information is evaluated in the context of existing cognitive structures ("schemas"), and information that matches, or is congruent with the existing information is more likely to be accepted, while incongruent information would be "filtered" out (see Taylor and Crocker 1981, for a complete discussion of the model). Presumably, if the brand information matches the existing schema for the celebrity who is presenting the information, it would not be filtered out.

While the above study provides a theoretically based confirmation of something that many practitioners have long believed (Misra and Beatty 1990), there is another theoretical perspective which has potential for enriching our understanding of the celebrity spokesperson issue: the availability-valence hypothesis.

The Availability-Valence Hypothesis

Building on the work of Tversky and Kahneman (1973) and Anderson and Bower (1980), Kisielius and Sternthal (1984) have proposed the availability-valence hypothesis. According to this hypothesis, people process message information and other stimuli by relating such information to relevant information they have stored in memory. In performing this operation, people typically do not access all the information they have processed previously. Rather, they rely on previously stored information that is most "available" in memory. In addition, the favorableness, or valence, of the available information determines the favorableness of the judgement rendered.

> "According to the availability-valence hypothesis, judgments depend on the favorableness of the information that is available in memory. Availability refers to the ease with which an association can be accessed from memory. Although information availability can be affected by a variety of factors, one factor that is important ... is cognitive elaboration, which refers to the number of associative pathways in memory that imply a particular concept." (Kisielius and Sternthal 1986, p.420)

In general, the greater the cognitive elaboration of information, the greater is its availability for rendering attitudinal judgments. The direction of the judgement itself depends on the favorableness, or valence, of the available information. Kisielius and Sternthal have also used the availability-valence hypothesis to explain the persuasive effects of vividness as a communication variable (1986).

When a consumer sees an ad featuring a celebrity, their response would be tempered by the past cognitive elaboration relating to the spokesperson. This would make information relating to the person more readily available in memory. It is also reasonable to assume that

the favorableness of the predisposition toward a celebrity would influence the affect toward a brand being promoted by that spokesperson. Thus, based on the availability-valence hypothesis, if an ad uses a celebrity, one would expect that the more "available" the information relating to the celebrity used, and the higher the valence (favorable affect) toward the celebrity, the more favorable the affect toward the brand advertised. Although spokesperson affect measurement is relatively straightforward, information availability at the cognitive level is difficult to estimate.

A higher degree of familiarity of an individual with a celebrity would imply a greater degree of cognitive elaboration and a better developed knowledge structure relating to the celebrity. That is, there would be more and better developed neural pathways relating to the celebrity in long-term memory (cf., Anderson and Bower 1980). This in turn should lead to greater availability of information relating to the celebrity. That is, information relating to a celebrity with whom one is more familiar should be more readily "available" in memory than information relating to another celebrity with whom one is less familiar. Thus familiarity may be used as an indirect measurement of availability. Thus availability-valence may be operationalized as a multiple (product) of familiarity and liking for the celebrity (**A x V**). In other words, we expect the combination of familiarity and liking for the celebrity to be correlated with liking for the brand. This leads to the hypothesis:

H1: There will be a positive association between affect for the brand and the product of the consumer's familiarity with, and affect towards, the celebrity spokesperson.

Pilot Study

A preliminary study was conducted to test the hypothesis on a limited scale. For this purpose, a print ad for a fictitious brand of jeans used, with Clint Eastwood as the spokesperson. A second ad was used Mary Lou Retton as a spokesperson for a new "energy drink." The spokespersons allowed a certain variance (across subjects) in the ratings for familiarity and affect, while the products were such that subjects would be familiar with them. The ads looked similar in terms of layout and amount of copy. These ads were identical to the ones used by Misra and Beatty (1990).

There were a total of fifty-one subjects, who were undergraduate college students and had volunteered to participate in the study. The first set of subjects (n=25), saw one ad and then filled out a questionnaire containing the measures. They were first asked to rate the brand for which they had seen the ad. Then they provided a rating of how familiar they were with the celebrity promoting the brand. Lastly, they rated their attitude toward the celebrity. A separate set of subjects (n=26) saw the second ad and responded to the questions.

The celebrity spokesperson literature provides us with rival hypotheses based on spokesperson attractiveness, perceived expertise, credibility, matchup with the brand, and so forth. The design of this study controls for them, and hence eliminates them as possible explanations. This is because the regression analysis would be at the individual level where, for a given ad, the spokesperson and brand were held constant, and the variation would primarily be in the subject's degree of familiarity with, and affect for, the celebrity. The attractivenes, crediblity, and so forth are held constant.

Measures

Affect toward the spokesperson was measured using the mean of four seven-point evaluative scales: good-bad, like-dislike, pleasant-unpleasant, and nice-awful (cf., Edell and Staelin 1983). The coefficient alpha was 0.92. Similarly, brand affect was also measured using the mean score on four seven-point scales: good-bad, dislike-like, pleasant-unpleasant, and poor quality-high quality (cf., Edell and Staelin 1983). Coefficient alpha was 0.94. Familiarity with the spokesperson was measured using a single nine-point scale.

Results

Affect towards the spokesperson had a mean score of 4.52 (standard deviation= 0.95), while affect towards the brand had a mean score of 4.25 (standard deviation= 1.17). The mean familiarity rating was 7.25 (standard deviation= 1.13).

TABLE 1

RESULTS OF REGRESSION ANALYSIS: FIRST AD

R-square= .2826, Adj. R-square= .2515

Analysis of Variance

	df	*SS*	*F*	*Sig.*
Regression	1	8.62	9.06	.006
Residual	23	21.88		
Total	24	30.50		

TABLE 2

RESULTS OF REGRESSION ANALYSIS:SECOND AD

R-square= .2930, Adj. R-square= .2635

Analysis of Variance

	df	*SS*	*F*	*Sig.*
Regression	1	11.28	9.95	.004
Residual	24	27.22		
Total	25	38.50		

The hypothesis was tested using stepwise forward multiple regression with affect towards the brand as the dependent variable. The independent variables were the familiarity with the celebrity, affect toward the celebrity, and the product of the two (AxV, availability x valence). The results are presented in Tables 1 and 2. In both cases, **AxV** was entered into the regression at the first step, and neither familiarity nor affect toward the celebrity were subsequently entered into the regression ($p > .50$), indicating that their marginal contribution was not significant. The R-square value in the first case was 0.283 ($F=9.06$, $p < .01$). , while in the second case R-squared was 0.293 ($F=9.94$, $p < .01$). Thus the proposed hypothesis, **H1**, was supported.

Discussion and Implications

The results from this preliminary study indicate that when selecting a celebrity spokesperson two variables must be taken into account: (1) how well known the celebrity is among the target market, and (2) what is the degree of favorable feelings towards the celebrity. A combination of these two would lead to more favorable attitude towars the brand. That is, both these attributes are important.

Thus, although John McEnroe might be well known, he might not be an appropriate spokesperson for any product aimed at a target group where he is not well liked. Similarly, although the singer Madonna might be well known across a wide section of society, she might be inappropriate for a product whose market might contain a subgroup which dislikes her.

Limitations and Future Directions

This *preliminary* study supports the availability-valence hypothesis. Although familiarity with the celebrity was used as a measure of availability in memory, other measures using a cognitive response approach may be useful. As discussed earlier, a greater degree of (self-rated) familiarity should lead to more and better developed pathways in memory, leading to greater availability. Nevertheless, other direct measures of availability are possible.

Confounding variables were controlled for by holding the celebrity constant over each set of respondents. Future studies should also measure these variables (e.g., perceived attractiveness and likability) so that they can be included in the analysis.

This preliminary study did not measure recall. Although the availability - valence hypothesis does not make any specific predictions in this regard, one might expect that the recall of product attributes/message would be higher when the degree of familiarity with the spokesperson is higher (higher availability), irrespective of valence. This needs to be tested empirically.

Future research should also use a larger sample size, and a variety of different advertisements to validate the basic findings reported herein.

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THE RELATIONSHIP BETWEEN ORGANIZATIONAL STRUCTURE AND POWER IN THE BUYING CENTER

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Abstract

A congruency theory approach is utilized to examine power within the industrial buying center. A mail survey of 204 individual purchasing agents was utilized to explore their bases of power in the purchasing decision process. Findings indicate that the bases of power appear to be independent of dimensions of organization structure. These results have implications for both industrial marketing strategy and industrial marketing research.

Introduction: Power

To fully understand the nature of organizational buyer behavior, an understanding of power in the buying center must be developed. For example, the power relationships in the buying center will largely dictate both the process and outcome of the purchasing decision.

As would be expected, achieving a better understanding of the dispersion of power in the buying center has been a goal of many industrial marketers (Cooley, Jackson, and Ostrom 1977; Jackson, Keith and Burdick 1984, Mattson 1988, Naumann, Lincoln, and McWilliams 1984). While these efforts have helped to identify who has power in organizational buying decisions, the research has generally not identified why the buying center members possessed power. Understanding power is a pervasive shortcoming in organization research both in marketing and organization behavior. As Boeker (1989) observes, "one of the least understood aspects of subunit power and influence in organizations is how it originated" (p. 388).

One of the difficulties in conducting power research is the array of divergent conceptualizations of the vague subject. Regardless of the conceptualization of power that is used, power relationships are dynamic and continually evolving. The purpose of this research is to examine the relationship between characteristics of the organization (dimensions of structure) and the bases of power of purchasing agents. An understanding of these relationships will extend the theory in the area of the buying center and may help industrial marketers to better understand the dynamics of the buying center. The rationale for selecting these factors is discussed in more detail in the following sections.

Organization Structure

Notable advances in the study of organizations have emanated from researchers pursuing congruency theory research agendas. At the most basic level, congruency theory posits that for an organization to perform well there must be a match among various organizational components (Fry and Smith 1987). More specifically, congruency theory implies that, for an organization to be effective, there must be congruence between three levels: 1) contextual macro variables, 2) dimensions of organization structure, and 3) work group and individual behavior patterns. For instance, integrative models developed by Luthans and Stewart (1977) and Van De Ven (1976) stress that congruency between all three levels is essential to an organization's long term effectiveness. A relatively large body of research has identified the manner in which macro level factors (e.g., size, technology, environment) influence organizational structure (La Belle and Nyce 1987; Lawrence and Lorsch 1967). It is also well supported that organization structure directly influences subunit and individual behavior, attitudes, and performance (e.g., Alexander and Randolph 1985). Thus, congruency theory implies that there must be a logical "fit" between a firm's structural configuration and small group and individual behavior patterns.

There seems to be agreement among organization theorists that two important dimensions of structure are centralization and formalization (Reukert, Walker, and Roering 1985). These dimensions of structure also appear to directly relate to the concept of power. Centralization indicates the distribution of formal control and power within an organization. It includes factors such as the location of decision-making authority, hierarchy of authority, autonomy, and the extent of participative decision-making. A high degree of centralization would be typified by a concentration of power and control among relatively few organization members, probably at high levels in the organization. Conversely, a low degree of centralization is referred to as decentralization and is characterized by a more diverse distribution of power (Child 1972). Therefore, the structural dimension of centralization appears to be related to the "legitimate" base of power postulated by French and Raven (1959). Since legitimate power flows from an individual's position in the organization, a change in the degree of centralization would appear to change the amount of legitimate power possessed by an individual.

Formalization is the degree to which policies, procedures, and rules are clearly stated and followed by individuals.

Formalization is a strategy of control that dictates the amount of acceptable variation in behavior by individuals occupying various roles in the organization. A high degree of formalization would result in many policies, procedures, and rules that would facilitate a high level of consistency in decision-making. Conversely, a low level of formalization would result in relatively few clearly stated policies, procedures, and rules (Child 1973). Thus, formalization may be related to both legitimate and expert power. To the extent that policies, procedures, and rules formalize responsibility and power associated with a position, legitimate power may be enhanced and

clarified. If less reliance in decision making is placed on policies, procedures, and rules, then the expertise of individuals may become more important. This would appear to increase the existence and use of expert power.

Thus, it appears that both dimensions of organization structure are related to the concept of power. Accordingly, variation in these structural dimensions may lead to variation in acceptable behavior and therefore to changes in the bases of power. However, before formulating research hypotheses, clarifying the buying center concept and social power is necessary.

Buying Center

The industrial buying process is complex and dynamic and often involves many organizational functions, other than purchasing, that exert considerable influence. For example, Bonoma and Johnston (1978) suggest that the purchasing agent has final authority in only 25-40 percent of all purchases. Studies by Cooley, Jackson, and Ostrom (1977), Jackson, Keith and Burdick (1984), Mattson (1988), Naumann, Lincoln and McWilliams (1984), and Thomas (1984) have confirmed the buying center concept and have indicated which organizational functions are commonly involved in purchase decisions. While there is variability in the composition of the buying center, there is general support that the functional areas of purchasing, production, and engineering are centrally involved in most purchase decisions. Additional functional areas appear to be represented as the need arises.

The patterns of interaction among buying center members may be influenced by the source of the individual's power (i.e., bases of power). It also appears likely that several dimensions of organizational structure (centralization and formalization) may influence the nature of interactions among buying center members, and, therefore, the bases of power. For example, Kohli (1989) found that the effectiveness of individual bases of power varies with buying center size, time pressure, the strength of accompanying influence attempts, and the extent to which buying center members work together as a team, as opposed to being fragmented and hostile to each other. Further, McCabe (1987) found that buying units operating under conditions of high task uncertainty were more highly centralized than similar units operating under conditions of low environmental uncertainty.

Social Power

There appears to be wide support for the view that social factors are important variables in the organizational buying process. The social structure that exists in a firm may directly influence the interactions and relationships among organizational members. Of the social factors in formal organizations, social power is the most pervasive and probably one of the most important factors. The initial starting point in many studies of social power is the identification of the bases of power.

These five bases of power have received considerable research attention. Podsakoff and Schreisheim (1985) reviewed over 20 studies using French and Ravens' framework in some fashion. Patchen (1974) examined social power in an industrial purchasing context and found expert and legitimate power commonly used. However, reward, coercive, and referent power bases were noticeably absent.

From Patchen's work, it appears that the structural configuration may influence the bases of power. As an organization becomes more centralized and formalized there may be more formalized roles for fewer buying center participants. Thus, buying center members may rely more on legitimate power than on expert power to achieve their goals. Conversely, as an organization is characterized as decentralized and less formal, roles may be less clearly defined and there may be less reliance on legitimate power and more on expert power. Unfortunately, there is apparently no research that examines the relationship between structural dimensions and bases of social power.

Hypotheses

Based on the concepts discussed in the previous sections, a series of hypotheses were developed. Given the somewhat vague nature of the power literature, these hypotheses may be viewed as exploratory.

The hypotheses are formulated with respect to purchasing agents. Previous research has indicated that the purchasing function is a consistently important buying center member in most types of organizational buying. Additionally, by occupying both an internal and an external boundary spanning role, purchasing agents are typically good sources of information (Silk and Kilwani 1982, Tushman and Scanlan 1981).

H1.1 As the degree of centralization in an organization increases, purchasing agents will make less use of expert power in the buying center.

H1.2 As the degree of centralization in an organization increases, purchasing agents will make more use of legitimate power in the buying center.

H2.1 As the degree of formalization in an organization decreases, purchasing agents will make more use of expert power in the buying center.

H2.2 As the degree of formalization in an organization increases, purchasing agents will make more use of legitimate power in the buying center.

Methodology

The specific approaches used to examine the hypothesized relationships are discussed in the following sections.

Sample

A convenience sample was drawn from firms in the Northwest U.S. The top purchasing manager in each firm was contacted and was asked if the firm would participate in the research. If the manager agreed, a questionnaire for each purchasing agent in the department was sent to the manager. The manager distributed the questionnaires and a prestamped, return envelope to each subordinate. Each purchasing agent returned the questionnaire directly to the researchers.

The purchasing agent was selected as the appropriate person to sample based on previous research. Specifically, prior research showed that the purchasing agent could consistently identify buying center participants and interaction patterns accurately (Silk and Kilwani 1982). Additionally, research has also shown that boundary spanning roles, such as the purchasing function, are typically good sources of organizational information due to their interdepartmental interactions (Tushman and Scanlan 1981).

Variables

The constructs involved in the study included centralization and formalization, product type, and bases of power. Each of these is discussed below.

Centralization and Formalization. The two dimensions of organization structure used in this research were centralization and formalization. The questions developed by Hage and Aiken (1967) were used to measure these variables. Subsequent research has indicated that the questions dealing with centralization apparently possess a slightly higher degree of reliability and validity than do the questions measuring formalization (Dewar, Whetten, and Boje 1980). However, the reliability associated with both constructs was relatively good.

Product type. Earlier research has shown that product type may have an impact on behavioral patterns in the buying center (Jackson, Keith, and Burdick 1984). Therefore, to provide a common frame of reference, each purchasing agent was asked to assume that he/she was faced with the purchase of component parts. Component parts were defined as goods which become part of the final product, but need no further processing.

Social power. The measurement of the bases of power is similar to the approach used by Busch (1980) in his research on power relationships. They used seven point Likert-type scales with the end points labeled "strongly agree" and "strongly disagree" to determine the degree of agreement with a series of statements drawn from French and Raven's (1959) conceptualization of the bases of power.

The specific wording of the questions used in this research is similar to that used by Busch (1980, p. 95). However, instead of evaluating "sales managers", this research examined the power bases used by purchasing agents. The respondents were presented with five statements each representing a different base of power. They were asked to indicate their extent of agreement with a series of statements as possible reasons for their influence in purchasing decisions.

Since the bases of power may be situation specific, twelve scenarios were developed representing different combinations of buyclasses and buyphases. The respondents were asked if they had experience purchasing components in a situation described in a particular scenario. If they responded affirmatively, they were asked why they possessed influence. If they had no experience in the situation described in that scenario, they were instructed not to complete the rest of the power questions. The results indicated that there were no differences between means of bases of power across the twelve scenarios. Therefore, with respect to bases of power, the data were collapsed.

Results

Response Rate

Four hundred and forty questionnaires were sent to individuals in 18 manufacturing firms. A total of 204 usable responses were utilized in the statistical analysis for an effective response rate of 46 percent. The survey included both large and small firms. However, approximately 63 percent of the responses were from high technology firms producing technical instruments, computer related products, or other advanced electronics. The remaining 37 percent of the responses were from both light and heavy manufacturing firms. Respondents averaged 5.7 years in purchasing, were 33 years old and had attended approximately 3.5 years of college.

Reliability

In order to test the reliability of the constructs used in the study, Cronbach's Alpha was calculated for each of the independent variables. Results indicated that centralization had an alpha of .78, and formalization had an alpha of .82. Thus, each of the variables proved to be relatively reliable.

Organization Structure and Bases of Power

As can be seen from the top part of **Table 1**, the two most widely used bases of social power are expert and legitimate power; reward, referent and coercive power were used much less frequently.

The results of the regressions showing the relationships between centralization and the bases of social power are also presented in **Table 1**. None of the bases of social power was significantly related to centralization. Therefore, H1.1 and H1.2 were not supported. It can be concluded that, although centralization is a measure of power dispersion in an organization, the bases of power are not related to centralization.

TABLE 1
GRAND MEANS OF BASES OF SOCIAL POWER

Base of Power	$\bar{X}^a$
Referent	4.63
Expert	2.63
Legitimate	3.06
Reward	5.46
Coercive	4.65

[a] Based upon a seven point scale where the lower the scale the more common the occurrence of the base of power.

REGRESSION OF CENTRALIZATION WITH BASES OF SOCIAL POWER

Base of Power	B	SE	ß	F	Sign. Level
Referent	.0084	.0341	.0176	.062	.8044
Expert	-.0289	.0244	-.0840	1.401	.2379
Legitimate	.0435	.0323	.0956	1.811	.1798
Reward	-.0504	.0342	-.1044	2.167	.1426
Coercive	-.0061	.0371	-.0116	.027	.8694

The results of the regressions showing the relationships between formalization and the bases of social power are presented in **Table 2**. As with centralization, none of the bases of social power was significantly related to formalization. Therefore, H2.1 and H2.2 were not supported. Formalization is also apparently not related to any of the bases of social power.

TABLE 2
REGRESSION OF FORMALIZATION WITH BASES OF SOCIAL POWER

Base of Power	B	SE	ß	F	Sign. Level
Referent	.0419	.0629	.0475	.445	.5055
Expert	-.0274	.0450	-.0433	.372	.5427
Legitimate	-.0011	.0596	-.0013	.000	.9851
Reward	.0428	.0631	.0368	.270	.6038
Coercive	.1011	.0684	.1049	2.184	.1410

Implications

There are several conclusions that can be drawn from this research. The first conclusion is that the bases of social power are relatively independent of the dimensions of organization structure. Stated differently, expert and legitimate power are common and important in an organizational buying context; while referent, reward, and coercive power are relatively unimportant, regardless of the degree of formalization or centralization. One explanation for purchasing agents reliance on expert power and their limited use of coercive, reward and referent power is that the latter may simply not be options. That is, purchasing agents may not be able to exert coercive power or may not be able to supply rewards to any great extent. Thus, regardless of the formalization and centralization existing in the organization, the most useful/available means of power for purchasing agents may be expert power. Furthermore, given purchasing agent's expertise in purchasing activities, it is likely that other functional areas may more readily accept their use of expert power. Since purchasing agents rely on the expert base of power most frequently in their relationships with other buying center members, regardless of the nature of organization structure, a marketer may want to provide the purchasing agent with information that would enhance expert power. For example, an industrial marketer may traditionally provide the purchasing agent with information regarding price, service levels, reliability, and quality. Previous research has shown that these variables are commonly viewed as important to the purchasing function (Lehmann and O'Shaughnessy 1974). However, an industrial marketer may also want to provide the purchasing agent with highly technical information that may be of primary interest to the engineering or production function. Conveying such information to other buying center members would be consistent with purchasing's "gatekeeper" role and would enhance purchasing's apparent reliance on expert power.

A second conclusion is that the bases of power are possibly more closely associated with micro level situational variables than with the dimensions of structures examined there. Variables such as purchase situations and purchase phases have been shown to be important determinants of relative power (Cooley, Jackson, and Ostrom 1977; Naumann, Lincoln, and McWilliams 1984). Thus, micro level variables such as these may also affect the bases of power.

Although the organization structure variables of centralization and formalization did not seem to be related to the bases of social power of the purchasing agents in this study, the constructs nevertheless need further research. Centralization and formalization, or other structural conceptualizations, may be insightful to marketers when further examining other aspects of the buying center such as intraorganizational dyadic relationships. For example, communications flows between buying center members may be influenced by the degree of centralization or formalization (i.e., rules, policies, procedures). Thus, understanding communications flows would have obvious industrial marketing strategy implications.

References

References may be requested from Professor Donald W. Jackson, Jr.

COMPULSIVE CONSUMERS AND ELEMENTS OF PERCEIVED PRICE

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Abstract

Traditional pricing approaches assume that the consumer operates under a rational framework of analysis. Recently, behavioral approaches have extended pricing models to include image, price-quality perceptions, and perceived value. While these advancements have helped increase our understanding of pricing and purchase decisions, this approach may not be applicable to all consumers. This paper specifically seeks to analyze a fringe group of consumers who may not operate under traditional price analysis and purchase models and those modified to include behavioral and individual considerations. It is the objective of this paper to investigate the generalizability of pricing research, specifically, aspects of perceived price, sacrifice, and perceived value to the compulsive consumer.

Introduction

Traditional economic theory has been criticized over the past decade in the marketing literature for not considering all relevant consumer decision making processes, specifically behavioral aspects of pricing. However, traditional economic theory is a reasonable starting place for analyzing the consumer purchasing process. Economic theory states that the consumer has two decisions to make: 1) what products should be purchased; and 2) what quantity of these goods should be purchased. The quantity of purchase is then based on four factors: the price of the good, the price of other goods, the income of the buyer, and the individual's tastes and preferences (Monroe 1990). This paper will examine the price of the good, competing goods and individual tastes with regards to the compulsive consumer. Specifically, we are concerned with the integration of these concepts into a perceived price and value analysis.

In both traditional economic and recent behavioral approaches, the consumer is assumed to behave in a rational manner i.e. he/she maximizes utility or satisfaction (Bagozzi 1978). However, there is one fringe group of consumers, compulsive consumers, that may not act or purchase in a rational fashion. While no consumer is expected to always act in a strictly rational fashion in arriving at a purchase decision, compulsive consumers are less likely to follow accepted purchase and pricing decision models. Economic theory states that although maximizing satisfaction (utility) is a subjective process, certain assumptions about consumer behavior must be followed: 1) the buyer calculates deliberately and chooses consistently; 2) deliberate choice rules out habit or impulse buying; 3) consistent choice rules out vacillating and erratic behavior and the buyer acts predictably; 4) wants and subjective utilities are not influenced by prices; 5) total utility increases at a diminishing rate with increasing product or service acquisition (Monroe 1990). While these assumptions appear to be a reasonable starting position for the traditional shopper, the compulsive shopper does not necessarily operate under these guidelines. In fact, the compulsive consumer may often act in direct contradiction to many of these presumed behaviors.

This paper is organized in three sections. First, we will review current literature with respect to the behavior of compulsive consumers. Second, the traditional approach to modern pricing models will be overviewed. Third, a set of hypotheses will be proposed to guide future research so as to increase understanding and knowledge of the purchase decisions of compulsive consumers.

Compulsive Consumers

Recent research in the field of marketing has identified a class of consumers that represents approximately 10% of shoppers, the compulsive consumer. The theoretical basis for the compulsive consumer is derived from the wider field of deviant and compulsive behaviors studied within psychology and sociology. This wider group of compulsive behaviors reflects "repetitive and seemingly purposeful behaviors that are performed according to certain rules in a stereotyped fashion" (American Psychiatric Association 1985, p. 234). Traditional models of shopping behavior focus on normative behavior, and do not incorporate any abnormal aspects of consumer behavior.

Recent research in marketing provides us with some foundation with regards to the compulsive consumer and his motivations (Faber, O'Guinn and Krych 1987; O'Guinn and Faber 1989). Compulsive consumption is defined "as a response to an uncontrollable drive or desire to obtain, use, experience a feeling, substance, or activity that leads an individual to repetitively engage in a behavior that will ultimately cause harm to the individual and/or others" (O'Guinn and Faber 1989, p.148). The commonality among these individuals is that they exhibit low self esteem and tend to spend too much of their time trying to please others (Faber, O'Guinn and Krych 1987). The difference between normal consumption behaviors and these abnormal tendencies does not, however, merely arise from the frequency of these consumption behaviors. It is the underlying motivations for engaging in these behaviors and the consequences of indulging in the activities that distinguish these tendencies. If the individual is considered to derive pleasure, gratification, or an emotional release from the behavior, it is considered to be a disorder of impulse control (American Psychiatric Association 1980). The motivation for these behaviors initially is to reduce stress or anxiety. Eventually, the negative consequences of these behaviors merely serves to increase stress levels. The defined compulsive consumer is distinguished from the impulse consumer through the chronic loss of impulse control which develops into repetitive behaviors marked by more dire consequences. The impulsive shopper is a less extreme version of the compulsive shopper, but often in impulsive purchase decisions, he/she follows the same predictable patterns as the compulsive shopper.

It is this element of uncontrollable and harmful behaviors that requires a reanalysis of current models of consumer decision making to determine if current pricing models are truly generalizable. Through further research about fringe consumers, it will be possible

to better understand the "normal" consumer, especially those "normal" consumers that exhibit fringe level behaviors.

Compulsive consumers use shopping as an escape from the pressures of everyday life and unhappiness. This was initially explored by Belk (1985) in his analysis of underlying motivations for actions performed to relieve depression. According to this author, buying is a way of reducing and coping with stress for some compulsive consumers. This stress may, however, reflect individual elation as well as depression or unhappiness. It is the actual purchase and the purchase process that work in concert to alleviate this stress. Often little enjoyment or use is derived from the product once it is purchased.

Compulsive consumers generally seek higher levels of arousal than traditional consumers (O'Guinn and Faber 1989). Arousal levels may be increased by acquiring exclusive or excessively priced items. Other market manifestations of compulsive behavior such as gambling indicate a need for excessive stimulation in their stress relieving activities. Light (1977) discussed that the balance between income and consumption is a serious issue. He demonstrated that many consumption patterns such as wasteful consumption and gambling occurs among individuals in the extreme poverty classification. These individuals often gambled up to 17% of their household income. Faber et al. (1987) found that a disproportionate percentage of focus group participants engaged in thrill seeking behaviors such as parachuting, indicating support for psychological theories that state that these individuals may actually lack the ability to produce a chemical naturally resulting from excitement.

Motivation for compulsive consumption behaviors tends to lie in social interaction and reward sought from significant others. O'Guinn and Faber (1989) found that four basic reasons account for this behavior. First, the individual receives social utility through interaction with the salesperson which helps build self-esteem. Second, by purchasing the product, the individual feels he is pleasing the salesperson or store. Third, purchases of gifts are designed to please a significant other. Last, a strong need for emotional arousal is necessary, but not sufficient, to result in the compulsive behavior. In other words, the buyer derives utility from the act of search and purchase, and not necessarily from the product consumption.

The recognition that the compulsive shopper does not necessarily seek to maximize his utility through the purchase of an assortment of products, emphasizes his need to maximize the positive elation and emotion from the shopping and purchase experience. Further, O'Guinn and Faber (1989) cite the primary motivation for compulsive shopping tendencies is to reduce or alleviate tension and anxiety through changes in arousal level or an enhanced feeling of self esteem (albeit temporary) as opposed to the acquisition of material goods. Hence, it is possible that prior purchase models do not adequately reflect the decision process of the compulsive consumer. Given this information, it is necessary to design and elaborate a model of compulsive shopping that may expand traditional explanations. This is so because the focus of the utility to be maximized is not typically the product or its consumption for these individuals. Thus, this paper will specifically enhance and develop the role of perceived price in a compulsive consumption situation.

Traditional Approaches to Pricing and Decision Making

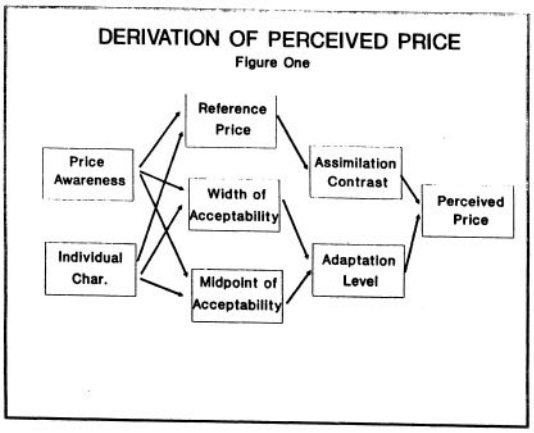
In attempting to understand how compulsive consumers evaluate price, it is necessary to examine the role of perceived price in the ultimate purchase decision. In most purchase models, this concept is integral in the evaluation of perceived value. Perceived price reflects what is given up or sacrificed to obtain the product and reflects the price encoded by the consumer. It is not, therefore, merely a monetary price component. Perceived value mediates the purchase decision and is the consumers' overall assessment of the utility of a product based on perceptions of what is received and what is given (Zeithaml 1988).

In order to study and predict the behaviors of compulsive consumers in a purchase decision, it is necessary to realize that the traditional approach to decision making may be significantly skewed as relates to these consumers. The compulsive consumer does not operate under the assumptions of the traditional shopper, i.e. maximizing the satisfaction derived from consumption of a given set of products within the constraints of a budget. Thus perceived quality and perceived value will be directly impacted due to changes in the traditional belief in how perceived price is defined.

Zeithaml (1988) proposes a means end model in which derived perceived price, perceived product quality, and higher level abstractions (such as convenience or appreciation) combined to result in an assessment of perceived value. The resulting assessment of perceived value precedes an evaluation of a purchase decision. Of interest to this investigation is the determination of perceived price by the compulsive consumer. Figure One illustrates the proposed determinants of perceived price that occur when a consumer enters the marketplace to evaluate goods.

DERIVATION OF PERCEIVED PRICE

Figure One



As reflected in this model, reference prices, width of the range of acceptable prices, personal traits (including income levels), and location of the midpoint of the acceptability range all impact perceived price. However, the resulting evaluation of perceived price is moderated by assimilation contrast effects and adaptation levels. Each of these concepts and their relation to the compulsive consumers' decision making process is reviewed and supplemented with hypothesis development. Lastly, a review of the proposed components of perceived price will conclude this discussion.

Perceived Price

In general, consumers' view price as what is sacrificed to obtain a product. However, Zeithaml (1988) divides price into three components: objective price, perceived nonmonetary price, and sacrifice. Jacoby and Olson (1977) distinguishes objective price as the actual price of the product, while perceived price is that encoded by the consumer. To understand the impact of compulsive behavior on price evaluations and encoding it is necessary to challenge the traditional economic view of price. There is support for the existence of perceived price as a separate construct throughout the marketing literature. This concept was nicely summarized by Allen, Harrell and Hutt (1976), Gabor and Granger (1961), Zeithaml (1988). In comparing prices, consumers' judgments are influenced by the perceived differences between the actual or offer price and the reference price (Monroe 1990) and the price of substitute goods.

Price Awareness

Price awareness affects consumers' perceptions of price. Zeithaml and Berry (1987) found that several demographic factors affect price awareness such as sex, age and marital status. Specifically, attention to prices by the average shopper tends to increase as product prices increase. However, will this relationship hold for the compulsive consumer? Important to this discussion is the concept of sacrifice. This is especially relevant to the determination of perceived price for a compulsive consumer, since the levels of process involvement are exaggerated. Sacrifice includes time, search effort, and psychic considerations as salient to the consumer (Zeithaml 1988). The salience of these factors for a compulsive consumer may be the opposite of those of an average consumer. Therefore, the following hypothesis is generated.

H1: The components of price (i.e. objective price, perceived price, non-monetary price and sacrifice are not evaluated similarly by compulsive as the rational consumer. The components of sacrifice are actually viewed as negative costs and will therefore deflate perceived price estimates.

The compulsive consumer views sacrifice and perceived nonmonetary price negatively compared to more rational shoppers. Hence testing the model should reveal negative correlations between the measures of perceived nonmonetary price and sacrifice.

Reference Prices

Reference prices may be external, internal, or based on the expectations of the consumer (Monroe 1990). It is the standard to which the price of a good or specific brand can be compared (Jacobson and Obermiller 1990). Reference prices maybe modified as a result of the interaction of the shopper with the marketplace. For example, adjustment may occur due to external reference sources. This may result in a new reference price which is based on the level of confidence the individual has in his internal reference price.

Due to the compulsive nature of the shopper group under investigation, internally guided prices will be seen as highly credible due to the extreme levels of continuous information search that accompanies the development of this reference price. Thus, this background is used to generate the following hypotheses:

H2A: Reference prices of the compulsive consumer will be less susceptible to external adjustment via adaptation or assimilation effects by "external reference prices" due to increased confidence in the internal reference price derived by the compulsive consumer.

H2B: Implausible reference prices will be contrasted more frequently by the compulsive consumer as a result of very high product knowledge.

Range of Acceptable Prices

Price acceptability has been measured as whether people actually view retail prices as true or fair (Zeithaml 1982). However, this is not a rational and inclusive approach to the measurement of this construct. Lichtenstein, Bloch and Black (1988) expanded this definition to be "price acceptability is a judgment of price based on a comparison of a price cue to a range of acceptable prices stored in memory".

This construct consists of two dimensions: 1) an acceptable price level and 2) the width of the latitude of acceptable price. As the compulsive shopper interacts continuously in the market, the level of involvement in the process enhances consumer knowledge with regards to products of interest. It has previously been hypothesized that as buyer learning increases, the width of price acceptability narrows as consumers are able to better ascertain characteristics of the product that enhance quality. Furthermore, Lichtenstein et al. (1988) found a negative relationship between product involvement and price consciousness. Product consciousness reflects the degree to which the consumer uses price as a negative role in the decision making process. This relationship is proposed to be consistent with the compulsive consumer.

H3A: As process involvement escalates, the compulsive consumer will exhibit less price consciousness.

H3B: As process involvement escalates, the range of acceptable prices for the compulsive consumer does not narrow with increased learning.

The range of acceptable prices often spans from the consumer's original reference price. Therefore, the compulsive consumer may exhibit different widths and midpoints for their ranges of acceptability. It should be anticipated that the midpoint of this range would be exaggerated in the case of socially stimulating shopping atmospheres. The compulsive consumer would seek higher levels of arousal for shopping in these exciting environments such as personalized boutiques where prices tend to be inflated.

Additionally, the level of involvement in the shopping process is so extreme that the width of the acceptable price range would be expected to be narrow due to enhanced pricing knowledge. However, since it is the process that is satisfying to the compulsive consumer, the product price range will possibly be significantly wider than a highly product involved consumer. Hence, the following hypotheses are put forth:

H4A: The midpoint of the acceptable range of prices for a compulsive consumer will be significantly higher than a noncompulsive consumer.

H4B: The range of acceptable prices for the compulsive consumer will be significantly wider than that for product involved consumers.

Conclusions

Determination of perceived price is the first step in the evaluation of a purchase decision. Based upon the work of Zeithaml (1988), it seems reasonable that the determination of perceived price is the first step towards the understanding of purchase decisions and the development of a global pricing and decision model. However, as marketers struggle to reach consensus on a generalizable model, it is interesting and helpful to take a step back and investigate the processes utilized by certain subsegments of consumers. By obtaining a better understanding of the processes utilized by these fringe consumers and how they differ from traditional consumers, marketers will not only enhance their knowledge about compulsive consumers, but will also expand and develop current thinking regarding traditional consumers.

The proposed relationships in Figure One relate many diverse concepts within the pricing literature into a workable framework for future analysis. Although this representation is not meant to indicate any causal relationships, it does detail many aspects of consumer derived perceived price. It is an opening focus on the concept of perceived price that enables the analysis of perceived quality, value and purchase to occur.

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MARKETING IMPLICATIONS OF BUSINESS TO BUSINESS BUYING: A MODEL OF THE INFORMATION FLOW OF THE PURCHASING DECISION PROCESS

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Abstract

Marketing scholars and practitioners have long acknowledged the multi-person, communicative nature of the business to business buying process. This process is often complex and may involve several people at all levels of the firm.

Work by Robinson, Faris and Wind (1968) and Webster and Wind (1972) helped in establishing the concept of the buying center as the communication core or concept for business to business buying behavior. Research done by Heide and John (1990) developed a model of closeness in industrial buyer-supplier relationships and tested empirically the relationships between the dimensions of closeness and their antecedent conditions. Analysis of the information flows within a buying center may yield important insights into the buying process, particularly for major, non-routine purchases (new task) requiring several layers of managerial approval (LaForge and Stone, 1989). In order for an industrial selling firm to develop an effective marketing program, it is necessary to understand the communication process as buying deliberations take place in a prospective customer firm.

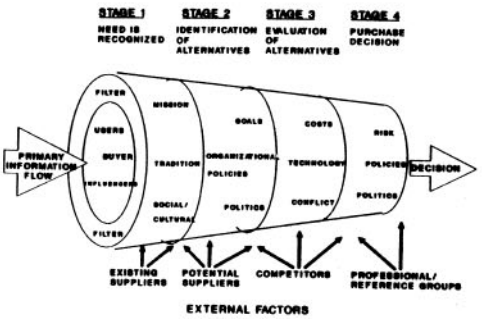
Considerable research in the area of salesperson behavior and performance has been conducted using a variety of behavioral and situational variables to predict performance (Behrman and Perreault 1984; Mowen et. al. 1985; Tyagi 1985). Knowledge however, of the buy-sell communication (decision) process that members of an organizational buying center use in their purchase decisions and the process by which these decisions become integrated into both purchase and sales strategies is limited.

Industrial buying can no longer be studied as an individual act; rather, it must be viewed as a multidimensional, complex communication process which is diffused throughout the firm (Mattson, 1988). Buying centers are seen as emerging, quasi-organizational units whose derivation, composition, and behavior are controlled less by formal organizational linkages and more by informal, cross-functional, lateral ties that are likely to take shape during the procurement decision process. With the exception of Calder (1977) and Johnson (1981), there has been little attempt to investigate information flows and communication networks between the buying center, other organizational units, and the selling community.

Purchasing is a process affected by individual, organizational, social, environmental, and other factors as depicted in Figure 1. Sellers are faced with joint departmental decisions, that require communication and coordination with finance, engineering, production, marketing, and other members of the buyer's management team.

This paper focuses upon the information flow in the purchase decision process. Specifically, we look at the various phases of the decision process, identify the constraints that develop as the process progresses through these stages, and examine the types of information at each phase and their impact upon the purchase decision. This is depicted in Figure 1 below. From this description of the information flow, a greater understanding of the business to business purchase decision process will emerge.

FIGURE 1
MODEL OF THE BUYING DECISION

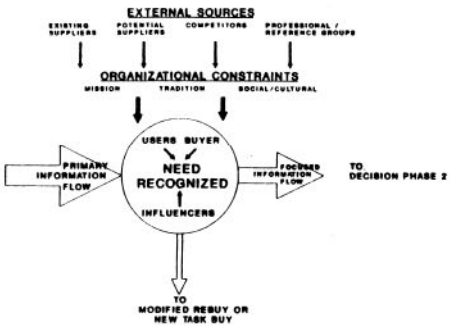


Phase One - Need Recognition

A purchase decision in a business to business environment is triggered by the organizations recognition of a need which requires a purchase to satisfy. After a need is recognized, several courses of action may occur. This would depend upon the nature of the need. If the exact situation has occurred previously, the organization will have experience in identifying and defining the nature of the need. In the case of a straight rebuy situation, once the need has been recognized and defined, it is typically communicated through the use of a standard requisition, a travelling requisition, or a verbal request

to buy. The communication is directed from the individual or group (the user), which initially recognized and defined the need, to the individual or group responsible for buying (the purchasing manager, buyer, or others authorized to spend company funds). Information which may be communicated would include product description and quantity requirements. This information is depicted in **Figure 2** as the primary information flow which starts with the recognition of the need and culminates with the progression to the next phase of the decision process.

FIGURE 2
DECISION PHASE 1



If the individual or group that initially recognizes the need has limited experience in this type of situation, a modified rebuy or new task buy may occur. Additional information may be needed.

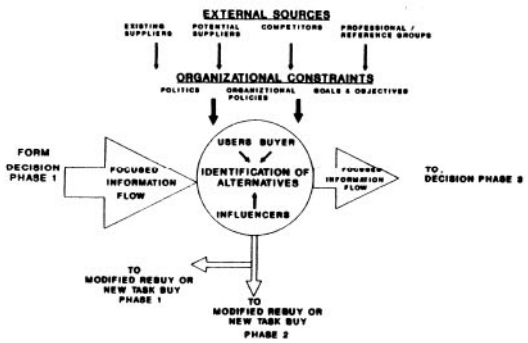
As depicted in **Figure 2**, the nature of the need (which is related to the buy class) is influenced by a variety of factors identified as constraints surrounding the primary information flow. During the first phase of the decision process, these factors are believed to represent a minimal and general barrier to the exchange of information between the organization's internal and external environments.

The impact that these constraints have upon the information flow also depends upon the nature of the need. For a straight rebuy, the constraints would have a minimal impact upon the information flow. The flow is short and narrow, implying that only a small quantity of information is required and the time for processing the information is minimal. For a modified rebuy, information from existing suppliers may be accepted or even sought by members of the buying center involved in this phase. Thus, more time and a greater quantity of information would characterize the information flow. For a new task buy, information would be actively sought by members of the buying center from existing and potential sources. In this situation we would expect large amounts of information from a variety of sources. More time would be required before a need could be sufficiently defined to allow passage to the next phase of the purchase decision.

Phase Two - Identification of Alternatives

In the second phase of the purchase decision process, alternative solutions are developed for the newly defined purchase requirements. This phase involves a number of steps including a formal description of needs and a search for sources capable of satisfying those needs. **Figure 3** portrays the information flow during this phase of the decision process and identifies factors that influence it.

FIGURE 3
DECISION PHASE 2



In a straight rebuy situation, the need is well defined and the search for sources is minimal or non-existent. Little additional information is required. Additions to the information flow may simply focus on timing, location of delivery requirements and quantity requirements. Thus, the process can move quickly. No additional individuals will be involved in the process, unless a change occurs due to problems concerning delivery, quality, service or price. However, any of these factors could change the purchase process from a straight rebuy to a modified or new task buy.

A modified rebuy situation requires additional time and information in order to specify the new characteristics of the modified need and to identify other qualified sources. The types of information that may be required include technical data that impacts design requirements, storage and handling requirements, quality specifications, cost data, prior exposure to suppliers and the reputation of suppliers. The result may be that more time may be required. More individuals from other areas within the firm will be involved.

The new task buy requires that the characteristics of the need be specified to a greater degree than in the first phase. Since this is a situation in which the members may have little, if any experience, they will not only be receptive to new information from other internal and external sources, but will probably seek additional sources of information. Thus, the buying center itself will expand, incorporating more individuals from more areas within the firm. Besides

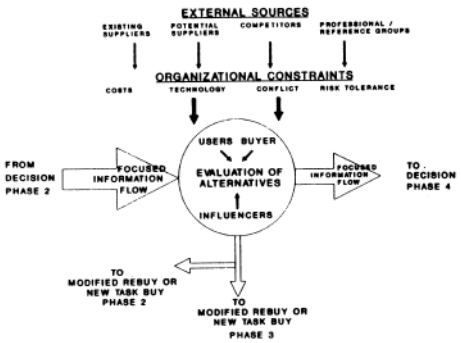
requiring more time, greater quantities of information will be collected.

Once sufficient information compatible with the goals, policies and politics of the organization has been acquired, the need can be sufficiently defined, and adequate sources of supply identified. Phase two is then complete and the process moves to the evaluations stage.

Phase Three - Evaluation of Alternatives

The third phase of the purchase decision process involves soliciting quotes and or bid proposals from potential sources. This is followed by analysis and evaluation of these proposals. In general, this stage will involve more people and require more time than the previous two phases. The type of information included in the primary information flow will tend to be more detailed than in the previous phases and will relate to performance considerations.

FIGURE 4
DECISION PHASE 3



In a straight rebuy situation, little if any time is devoted to the decision process. The user and the buyer are typically the only members of the buying center involved. The information which is required to evaluate the alternative has either been collected or was already in the organization's possession. However, for a modified rebuy situation, more information is required in order to address the increased risk associated with a modified or altered need. Characteristics of the altered need have to be sufficiently defined to allow proposals for bids to be developed and sent to potential sources.

For sellers who do not provide products which are related to the modified need, this is their opportunity to become a supplier. The buyer is in need of information to evaluate bid proposals of competing suppliers. Forceful and creative selling approaches are often necessary for the potential supplier to overcome the inherent advantage of the existing supplier.

The new task buy accentuates the informational requirements of the modified rebuy situation. This will reduce the inherent advantages existing sources have in this process. Information which members of the buying center do not possess will be required. Potential new suppliers now have their best opportunity to become a supplier.

If sufficient information has not been obtained to allow proper evaluation, several situations can occur. First, the phase can be extended or delayed in order to obtain more information or more detailed information. Second, the type of need may be altered; a modified rebuy may evolve into a new task buy as additional information provides the members of the buying center with new ideas for a sourced product. This may even cause the process to revert to a prior phase to provide additional information.

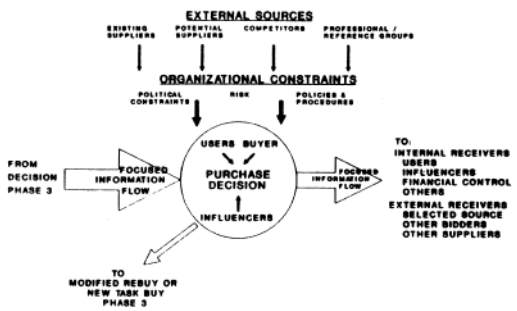
Phase Four - Purchase Decision

The purchase decision process final phase begins when all qualified vendors have been identified and approved by the buying center. The next decision involves vendor selection. This phase ends with a purchase contract.

A result of the previous phase is an agreement among buying center members concerning the abilities of potential vendors to satisfy the organization's need. Uncertainty and risk have been reduced as a result of the analysis and evaluation of the previous phases.

Arriving at a decision in the straight rebuy situation is usually rapid and involves little if any additional information. The selection is normally (but not necessarily) a continuation of an existing relationship with a vendor. No new conditions are required and documentation (purchase order with price and delivery terms) is sent directly to the vendor.

FIGURE 5
DECISION PHASE 4



Deviation from a straight rebuy may occur when discrepant information is presented. Unexpected price changes, change in delivery schedules and altered product specifications may cause a review of the existing decision to continue with the same vendor and/or with the same terms.

The fourth phase of the modified rebuy situation requires members of the buying center to select from among the qualified vendors. More information will be required, more individuals will be involved and more time will be necessary for the final selection than with a straight rebuy.

When selection criteria are evenly applied to all vendors, the decision may become protracted. Additional information may be sought directly from the vendors or additional internal sources of information may be tapped for further analysis. Less important criteria may now become determinants of final vendor selection.

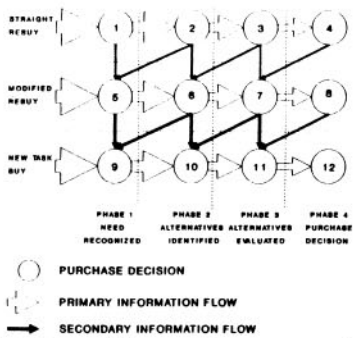
The time required for a new task decision is longer than the modified rebuy, as even more information may be needed, more individuals are involved and political considerations may be more important. In the new task buy, qualified vendors have already been evaluated, but the final selection criteria may not be agreed upon by members of the buying center. As members search for agreement on primary selection criteria, some members will emphasize price or cost considerations, some may emphasize present relationships, and others may stress quality in the modified rebuy situation.

Management Implications

It is necessary for both the buyers and sellers to understand the process utilized in business to business buying decisions. Ultimately, the knowledge gained in understanding this process can assist an organization both in selling its products and in improving its own purchasing behavior.

Knowledge of the participants, when each is involved, and their roles within this process has been the focus of past research. The description of the decision process as presented in this paper interprets the process in terms of the types, quantities and sources of information used at each stage. Identified are organizational and environmental factors which influence the acquisition and exchange of information between external and internal participants. This process is represented as a decision/informational matrix in Figure 6. The cells in this matrix identify the various decision stages for each purchase situation.

FIGURE 6
DECISION PATH MATRIX



The first stage of the purchase process (need recognition - cells 1, 5 and 9 of the matrix) recognizes the existence of a need which will require a purchase decision to satisfy. A seller's knowledge or recognition of this need is a crucial first step in the design of a successful selling program. To obtain this knowledge, "relationship marketing" can be employed by the selling firm. This establishes a line of communication between the seller and potential members of the buying center. The seller can utilize this relationship as a source of marketing intelligence to identify internal needs within the buying firm when those needs are triggered. These needs can be triggered by a member of the buying center (i.e., user, influencer or actual buyer), or they may be initiated by the seller through a value analysis or design proposal.

Where a relationship between the seller and the potential buyer has not been established and communication lines with the potential buyer are few, the seller's chance of discerning a purchase need at this stage are minimal, particularly in a straight rebuy (cell 1) or modified rebuy (cell 5) situation. With a new task buy (cell 9), the situation may be somewhat different and the seller may be able to determine potential purchase needs by aggressively marketing to these customers. In addition, knowledge of the seller's expertise in the area may be sufficient for the potential buyer to initiate a request for information.

After the initial need, which triggered the purchasing process, has been documented and described, alternative solutions to the purchasing problem are developed in the second stage of the decision process (cells 2, 6 and 10). For a straight rebuy situation this will probably entail retrieving internal information concerning the existing source of supply along with past documentation of previous buys. There is typically only one viable alternative; the existing vendor.

For a modified rebuy, additional information is often used by members of the buying center. Although there may be an obvious alternative, other solutions are usually developed. Information required to develop these alternatives consists of the awareness of a vendor's ability to satisfy the modified need.

Awareness is frequently associated with the buying center members prior exposure and knowledge of the vendor's capabilities.

The establishment and maintenance of a relationship with buying center members may also allow the seller to proactively create a modified rebuy situation. This may occur if the seller can provide key members with information concerning new methods or technology which, in turn, may result in a reevaluation of a current vendor's products. This may result in making a straight rebuy situation (cell 2) into a modified rebuy situation (cell 5).

Additional alternatives and a variety of information are associated with a new task buy. Although existing vendors may have an inherent advantage, new vendors will probably be considered. The key information challenge at this stage is for members of the buying center to acquire knowledge of a vendor's capability which can potentially satisfy a new, unfamiliar need. External sources of information become very important. For salespeople, the task at this stage is to attempt to expose key members of buying centers to the capabilities of their organizations as problem solvers and potential suppliers. Sales promotion, direct marketing and trade shows, along with regular sales calls are important information channels that these organizations can use to create awareness of their capabilities. Cold calling, although possibly effective, has a low probability of success. The timing, the approach and the individual must all coincide with the new buy situation. Organizations which have established relationships and maintained them will be at an advantage. They should position themselves as problem solvers working with the organization and not solely as a product supplier.

Care must be taken by sellers in how they provide information at this stage. Individuals must be targeted and approaches designed which recognize their contribution to the decision process. In many cases, the buyer may construct barriers which limit access to these individuals. These barriers can be in the form of policies and procedures governing who in the organization is allowed to directly approach vendors.

Once alternatives have been identified and proposals solicited, the decision process proceeds to the evaluation stage (cells 3, 7 and 11). Alternatives must be weighed and a vendor or vendors must be selected. In the straight rebuy situation (cell 3), this decision has already been made. The current vendor is the only alternative and the process proceeds to the final stage (cell 4).

For a modified rebuy situation (cell 7), multiple criteria and various individuals are involved in the bid evaluations. The job of the seller is to identify who is involved and what criteria they are using. Prior experience with the organization can provide the seller with insight into who these individuals or groups are and what criteria are important. At this stage in the decision process more detailed and precise information is needed.

Where bids from other than existing vendors are being evaluated, added risk may be present. Selling firms must realize that the buyer may require additional information to ascertain the reputation and dependability of the potential vendor. Current suppliers can use their previous relationship with the buying firm to attempt to overcome the perceived risk associated with a changing purchase need or the selection of a new vendor.

In the new buy situation (cell 11), the evaluation is generally more complex. Decision criteria, established in order to solicit bids, may change during this stage. New criteria may be introduced or the weights assigned to existing criteria may be altered. The seller may provide the information required for existing criteria and may influence the criteria itself. The need for relationship building is imperative at this stage if the seller is to successfully influence the selection.

In the final stage of the process, decisions concerning the vendor's price, terms and other conditions are agreed upon and a purchase contract is issued. Internal lines of communication, which may have become strained during this entire process, are repaired and methods are agreed upon to evaluate the results of the purchase decision.

For a straight rebuy, the information required is minimal, as confirmation of price and delivery from the existing supplier may be all that is required.It is important however, that the seller provide the necessary information and documentation, otherwise a secure buy-sell relationship may be impaired.

In order to complete the purchase process in a modified rebuy situation additional information is required by members of the buying center. The needs for product inspection, delivery, acceptance, terms and conditions, and return procedures are particulars which must be addressed. Continuing contact between the seller and key members of the buying center may be necessary for the seller to obtain this information. In addition, the contact may aid in establishing an ongoing relationship. This, in turn, may eventually evolve into a straight rebuy situation (movement from cell 8 to cell 4).

The information required at this stage in a new task buy is similar to the modified rebuy except that the greater risk may require more information. The seller must attempt to reduce this risk by determining what additional information is needed and then providing it to the appropriate person. It will be necessary for the seller to maintain close contact with key members of the buying center in order that problems can be

quickly identified and addressed before they are allowed to get out of hand. This communication path provides critical feedback from the user to the seller, and, hopefully will assure ongoing contact and reaffirmation of the decision. The intent of the seller should be to move the process from a new task buy into a straight rebuy situation (from cell 12 to cell 4).

What should be obvious at this point, is that existing vendors should pursue a strategy of moving upward in the decision/informational matrix (from cells 5 through 8 to cells 1 through 4). New potential vendors should attempt to move the purchase decision down in the matrix which would increase their chance of providing information into the information flow of the buying decision process (from cells 1 through 4 to cells 5 through 12). The buying organization, on the other hand, has a vested interest in maintaining the status quo (i.e., staying in the same row of the matrix).

Summary

The purchase decision in the business to business environment can be a lengthy and complex process. To design and implement a successful sales program, the nature and details of this process should be understood by existing and potential sellers. The model developed and explained above highlights the process as a flow of information beginning with the recognition of a need and culminating with the purchase decision. The benefit of this type of description is that it identifies when, where and what types of information will be needed and how a seller may provide it. **Figure 6** summarizes the information options available to the selling organization and identifies potential strategies which may be successful.

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BEYOND THE FAMILY LIFE CYCLE: AN INVENTORY OF VARIABLES FOR DEFINING THE FAMILY AS A CONSUMPTION UNIT

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Abstract

This paper examines the traditional Family Life Cycle (FLC) Model common to the literatures of the marketing and consumer behavior fields. The paper then presents an inventory of historically relevant variables that better define the family and household and discusses how these variables influence consumption decision making. Finally, directions for future research based on potential gaps in knowledge are discussed.

Introduction

The face of family structures in the United States is in continual evolution. Population trends, coupled with important environmental forces such as rapid technological advances and varying rates of economic growth (or decline), make complex and challenging the job of marketing managers and scholars. As we approach the next century, much of our time-honored marketing "gospel" will require, at the very least, careful reexamination and adjustment to reflect changing realities in the marketplace. This paper begins such an undertaking by carefully examining the conceptual and historical bases of the Family Life Cycle concept.

Family Life Cycle and Consumer Behavior

The family life cycle is a developmental framework which conceptualizes more or less predictable changes in the interrelationship of family roles, resources, and socially constructed norms of "appropriate" patterns of consumption. It first appeared in the marketing literature in 1966, when Wells and Gubar presented the FLC as a potential independent variable for marketing research. It had been previously introduced in rural sociology in the 1930s (Loomis 1936; Sorokin, Zimmerman and Galpin 1931), and it became truly established as a usable concept for understanding family dynamics by mainstream sociologists in the 1950s (Clark 1955; Lansing and Kisch 1957).

The early models perhaps reflect the comparative social stability of their respective eras. The most accepted, "traditional" model to emerge over time still reflects a rather uncomplicated perception of family life and the relevant environmental influences (see Table 1). In this model there appears to be little room for deviation from a lock-step, almost deterministic passage through the various stages. The model makes many assumptions which are, at best, naive. For example, all singles are depicted as young, and all married couples are considered to eventually have children. There does not appear to be a place in the model for divorce, non-marital cohabitation, stepfamilies, returning adult children, or care for elderly relatives. Indeed, in a recent review by sociologists O'Rand and Kecker (1990), it is stated that the traditional family life cycle "ha[s] only one kind of family in mind - the nuclear family in midtwentieth century western (American) culture, consisting of a married couple with children" (p. 251). Clearly such an ethnocentric and tempocentric approach has limited usefulness to marketers in the 1990s and beyond.

This traditional model relies on three key variables, namely, (1) age of children present (in addition, implicitly perhaps, age tends to be linked with career stage and income of the adult(s) present), (2) marital status, and (3) presence or absence of children. The usefulness of the model as a marketing tool lies in the types of role-related product clusters families in each of the various "stages" are likely to consume (Wilkie 1990).

In the last fifteen years, researchers concerned with the inadequacies of the categorical stages of the model have updated the Family Life Cycle. For example, Murphy and Staples (1979) recognized divorce, smaller family size, and delayed marriage as "contemporary" developments which affect persons as they progress through the life cycle. Gilly and Enis (1982) expanded the model to include 13 stages, the apparent goal of which was to classify a higher percentage of American households (Danko and Schaninger 1990). Working wives and changing female roles were emphasized by several consumer behavior scholars in the early 1980s as important considerations in classifying families (Bellante and Foster 1984; Ferber and Birnbaum 1980; Venkatesh 1980).

A more recent conceptualization of consumer "lifestages" accounts for the notion of an aging population and the tendency of some women to put off childbirth or choose not to have children at all (Putnam, Brooks and Davidson 1986). Other scholars have also contributed to the body of thought concerning FLCs and their relevance to marketers and consumer researchers, but they have not specifically challenged the assumption that children as well as parents pass through relatively predictable stages of development and individuation (Derrick and Lehfield 1980; Lepisto 1985; Reilly, et al. 1984; Wagner and Hanna 1983).

All these approaches recognize important gaps in the traditional model, but they present categorical modifications which still retain the evolutionary assumptions of the original FLC. As such, many FLC updates systematically exclude a range of meanings, responses, and events which over time have affected America's way of thinking about and having families.

An Inventory of Family-Defining Variables

Conceptual notions of what "family" signifies are by no means consistent. The literature indicates that individuals vary considerably in their understanding of the term. For example, Trost (1990) notes that "included under the concept of family are not only persons from the immediate 'nuclear' family but also kin of various sorts, friends, and pets" (p. 431). From a marketing perspective, and for the purposes of this paper, the value in defining the family is clearly in terms of its viability as a consumption unit and its participation in the marketplace.

Instead of elaborating additional categories within the FLC model, we choose to construct an extensive inventory of household variables which appear to affect family consumption decisions. Because families and individuals now move back and forth on virtually every dimension except for age, these variables are properties which may define families and their consumption behavior at any point in time. Thus, the inventory is not meant to elaborate yet another determinate "stages" approach, but rather to suggest a range of options which may directly affect family consumption patterns. This inventory approach is chosen because clear evidence indicates that certain "stages" are repeatable (e.g., a second marriage), reversible (the loss of a family member), and probably only loosely associated with age and the movement of time (see, for example, Marini 1984).

On the one hand, the use of such an inventory may frustrate marketers' efforts to neatly classify and predict family unit consumption behavior (i.e., Roberts and Wortzel 1984). On the other hand, some suggest that beginning the segmentation process using smaller units and considering contextual effects on consumer behavior is increasingly possible and more importantly, desirable (Stewart 1991). This type of approach allows for a more historically sound and above all, flexible depiction of families and their role-related product need clusters.

When defining the family for marketing purposes, the three traditional variables - age, marital status, and presence or absence of children - continue to be important, but they are refined here and joined by several other variables. Included in the new conceptualization is the introduction of the element of financial resources (Wagner and Hanna 1983), modified notions of kinship structure of the household, age of all household members, and numbers present within the household. The full range of variables is presented in **Table 2** and discussed in the sections below.

Age of Household Members

As age was discussed in the traditional FLC model, it included only the notion of whether children were either younger than six, older than six, or in their teen years. A more thorough approach should include the ages of all persons residing in the household. Consumption at the household level will be dictated by the life experience (which is often age-related) of family members, by age-based needs and wants, and by the role-based behaviors exhibited among the generations represented.

Numbers Present

The traditional FLC model chooses to focus on the age, particularly that of the youngest child, rather than the number of children present within the household. This does not address the marketer's need to know the amount of demand a certain product or service will exhibit. The simple inclusion of number of members present (adults and children, and in some cases, pets) in the household is a refinement which allows more precise knowledge of the potential for consumption by the family. This refinement also takes into consideration the existence of other dependent or independent individuals living with the family. For example, sociologists have identified the growing trend of returning young adults (RYAs) who come back to the household after some period of independence (Schnaiberg and Goldenberg 1989; Webb 1988). The traditional FLC does not consider the possibility of returning young adults or other dependent individuals in the family structure.

Kinship Structure and Psychic Involvement

The age and number of individuals living together as a family will influence their consumption patterns. Also of significance are the structural and psychic relationships among the household members. The kinship structural notions pertain to marriage, divorce, remarriage, roommates, unmarried couples of all types, extended families, adoption, and the like. By psychic involvement we refer to the social norms and expectations exhibited by and among household members as well as the emotional commitment and involvement demonstrated in support of dependents and other household members.

The relationships within households are changing. According to a 1984-85 study by Family Service America, the traditional nuclear family consisting of husband and wife at home with two or more children accounted for less than 10% of all households (Children Today 1985). Through such living patterns as cohabitation, marriage, divorce, single parenting, remarriage, etc., different structures of kinship are arising. Double or triple sets of parents, grandparents, aunts, uncles, brothers, sisters, not to mention former inlaws, ex-spouses, and so on, all make up new extended families.

Recent U.S. census statistics relating to these new kinship structures are dramatic (Saluter 1991):

* There were 2.9 million unmarried couple households in 1990, an 80% increase over the last decade.

* Between 1960 and 1990 the proportion of persons 18 to 24 years old who lived in the home of their parents increased from 43% to 53%.

* One third of never married persons 25 to 29 years old lived at home with their parents in 1990.

* The proportion of women 30 to 34 years old who had not yet married has nearly tripled from 6% in 1970 to 16% in 1990.

* The ratio of divorced persons to married persons living with their spouses was 142 per 1000 in 1990, three times the ratio in 1970.

* The proportion of children under 18 living with only one parent has more than doubled in the past two decades, from 12% to 25%. 31% of these live with a never-married parent.

* In 1990 12.6% of individuals 65 years old and older were living with other relatives (non-spouses).

Alimony, child support, parental support, step-family formation, etc., are realities in today's society. These complexities bring new definition to the concept of family. With such complexities distorting the image of a "traditional" family, is it valid to approach their consumption patterns using the traditional family life cycle?

In addition to, or perhaps because of the structural changes that the American family is undergoing, the level of psychic commitment between household members may also be changing. Major disruptions in family structure, as in the creation of step families, can create new levels of tension, cohesion, acceptance and conflict (Pill 1990; Hetherington et al. 1981) that will certainly have impact on family consumption. These reactions should not be dismissed given that projections indicate that the step family will be the predominant family structure by the year 2000 (Herndon 1982).

Similarly, when RYAs come home seeking financial and emotional support, as well as temporary housing, child care and loans, it is not uncommon for them to encounter higher levels of stress, anxiety and tension (Burnett and Smart 1991; Webb 1988; Greenberg and Becker 1988).

Financial Resource Variables

Financial resource variables are those factors which are related to 1) the career stage of the adult(s); 2) the number of working individual(s) in the household; 3) the income-pooling/ non-pooling behaviors within the household, and; 4) historical incomes and expenses (e.g., financial arrangements associated with prior marriages or structures). These factors are significant in that they will impact the purchasing power of the household. Unexpected changes in family structure frequently serve to redirect family resources. As an example, RYAs or returning elderly relatives can have not only structural and psychic effects, but also financial effects on consumption behavior (Burnett and Smart 1991; Duncan, et al. 1986). How positive or negative these effects will be is, of course, a function of the historical financial situation and the pooling behaviors exhibited. In the case of a divorce, as another example, men tend to improve their financial base, while women (especially those with custody of children) tend to have decreased financial resources available (Furstenberg 1990).

With respect to family resource usage, it is proposed that the level of financial support will be related to the level of emotional commitment discussed above. "Close" families may exhibit a greater tendency to "help out" than families with weak or even poor relationships. Consequently, a series of support cutoffs are presented in **Table 2** where the combination of financial resources and emotional involvement can lead to a continuum of possibilities ranging from no support whatsoever to perpetual support. In summary, use of the age and number of household members, the kinship and psychic relationships, and financial resource variables permits a more thorough treatment of the family as a consumption unit.

Conclusion

We have argued that many of the changes in family make-up cannot be categorized as "stages" in a life cycle model. In this time of rapid social change, definitions of families are emergent and fluid, not fixed and categorical. Furthermore, it appears that nearly any set of people can now call themselves a family, and there is no universal sequence for family development. This reality necessitates a wholly different approach to the problem, one that allows for a host of variables to define the family consumption unit. These variables incorporate the age, marital status, and presence or absence of children utilized by the traditional Family Life Cycle, but at the same time, they are refined and expanded to permit the flexibility required for depicting more complex and dynamic family structures. The variables proposed in **Table 2** begin to meet that need.

When families are described according to four primary variables - age; numbers present; kinship structure and psychic involvement, and; financial resources - the goal is to represent more closely the fluid nature of family life and the relevant contextual features which affect it, the reality of which has not been fully captured by stage models such as the FLC. While this paper offers only conceptual development, early empirical efforts are beginning to explore these important and complex phenomena (Alquilino and Supple 1991; Burnett and Smart 1991; work in progress by the authors), and 1990 census data returns offer fertile beginnings for future efforts in this vein.

The traditional FLC has received wide acceptance, perhaps based on the intuitive appeal of classifying families in a common sense fashion. Its ready availability, however, has restricted the efforts of marketers, by focusing attention on "predictable" movement between stages. We believe that the approach suggested here captures a more realistic portrayal of the changing, less predictable, face of American family life and consumption.

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TABLE 1

TRADITIONAL MODEL OF FAMILY LIFE CYCLE

Single Stage:	(young, unmarried adult)
Newly-Married couples:	(young, no children)
Full Nest I:	(youngest child under 6)
Full Nest II:	(youngest child over 6)
Full Nest III:	(children in mid-teen years)
Empty Nest I:	(children gone, parents still working)
Empty Nest II:	(children gone, parents retired)
Solitary Survivor:	(widowed parent, still working)
Retired Solitary Survivor:	(widowed parent, retired)

TABLE 2

VARIABLES DEFINING FAMILIES AND AFFECTING CONSUMPTION CHOICE BEHAVIOR

I. AGE

Adults involved, referring to "parents," or heads of household, and dependent elderly household members

Child(ren) involved, referring to "children" by blood, marriage, adoption, or other

II. NUMBER(S) PRESENT

Adult(s) and child(ren), pet(s)

III. KINSHIP STRUCTURE AND PSYCHIC INVOLVEMENT OF FAMILY/HOUSEHOLD MEMBERS

Kinship structure
- Marriage, divorce, remarriage, extended family, step-family, unmarried couples, etc.

Psychic or emotional involvement
- Level of psychic involvement in support of "children"
- Subcultural and social class norms related to expectations for children's achievement

IV. FINANCIAL RESOURCE VARIABLES

Career Stage
- of adults present

Number of Working Adults
- teens (?)

How/Whether Resources are Pooled/Kept Separate Historical Expenses/Income
- alimony, child support, other expenses/income related to prior marriage(s).

RESOURCE ALLOCATION: FINANCIAL AND EMOTIONAL INVOLVEMENT WITH YOUNG ADULTS (A CONTINUUM OF SUPPORT CUTOFFS)

No support whatsoever

Age-related support
- until 18
- until 21

Event- or activity-related support
- while enrolled in high school
- until married
- while in college/vocational training
- "until they can stand on their own feet"
- "while under my roof"
- assistance with first home down payment

Perpetual Support (while parent(s) are alive)
- "as long as they need it" - (informal)
- endowment, trust fund, etc. - (formal)

IMPULSE BUYING: A NEW FRAMEWORK

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Abstract

This paper examines the research on impulsive behavior, unplanned purchasing and impulse buying. It describes factors that may be linked to impulse buying intensity and then introduces a new framework for analyzing this phenomenon.

Introduction

After 40 years of research, impulse buying is still a poorly understood concept (Cobb and Hoyner 1986). Yet, the pandemic rise in American personal debt as well as the skyrocketing national debt may be a reflection, in part, of the American consumer's impulsive lifestyle. This paper examines the research on impulsive behavior, unplanned purchasing and impulse buying. It describes factors that may be linked to impulse buying intensity and then introduces a new framework for analyzing the phenomenon of impulse buying.

Impulsive Behavior

A psychological impulse is defined as "a strong, sometimes irresistible urge, a sudden inclination to act without deliberation" (Goldenson 1984, p. 37). The triggering of a psychological impulse occurs spontaneously. This drive to act instantaneously varies in both its magnitude and in its persistence. Moreover, behavior is not impulsive simply for the reason that it occurs swiftly (Rook 1987). Sudden behavior can occur due to previously formed habits or due to quick rational thinking. For example, if a consumer traditionally purchases tuna fish at a local market and sees it on sale for half the regular price, s/he may quickly decide to buy it based on a heuristic and/or another form of swift rational thinking. In this occurrence psychological impulses may have little to do with the associated behavior. Thus, kindred to most psychological elements, impulsiveness is not dichotomous but runs along a continuum.

When an individual lacks adequate control over his impulses severe psychosocial problems customarily prevail. Drug addiction is seen by Winshie (1977) as a manifestation of impulsive behavior. Other associated detrimental outcomes include: excessive overeating, gambling, sexual promiscuity, buying and acts of violence.

Early work by sociologists showed a direct causal relationship between impulse propensities and early childhood learning (Davis and Havinghurst 1946). Adolescents with historical patterns of excessive impulsive behavior were found to have distorted conceptions of future time horizons (Davids 1969).

Planned Purchases and Impulse Buying

Traditionally, an impulse purchase has been defined as "a buying action undertaken without a problem previously having been consciously recognized or a buying intention formed prior to entering the store" (Engel and Blackwell 1982 p.552). Impulse buying is widely regarded as unplanned purchase behavior (Bellenger, Robertson, and Hirshman 1978; Cobb and Hoyner 1986). Thus most of the impulse buying studies have dealt with unplanned purchasing exclusively. In the 1950's, unplanned purchasing studies (synonymous with impulse buying studies) focused on frequencies of unplanned buying among various retail environments (Clover 1950) and within certain product categories (Applebaum 1951; West 1951). Couples shopping in supermarkets were found to purchase more unplanned items than if either spouse had shopped there alone (Applebaum 1951). Candy and nuts were purchased without any prior planning up to 82 percent of the time while jewelry and hosiery were purchased without any prior planning between 20 percent and 30 percent of the time (West 1951). Managers estimated that the percentage of unplanned purchases ranged from more than 60 percent for variety stores, to slightly over 25 percent for supermarkets, to less then 10 percent for furniture stores, auto supply stores and lumber yards (Clover 1950).

The aforementioned definition for impulse buying as being an unplanned purchase was seen as too vague and lacking focus on particular types of behavior (Stern 1962; Kollat and Willett 1969). "The Impulse Mix" was related to behavior influenced by location and economic, temporal and cultural factors (Stern 1962). Furthermore, it was related to a classification schema encompassing four broad classifications of impulse buying: (1) pure impulse buying, which is characteristically a novelty purchase breaking normal buying patterns; (2) reminder impulse buying, whereby knowledge or experience with the product triggers the purchase; (3) suggestion impulse buying, which occurs when a buyer encounters a product for the first time and rationally recognizes a need for it; and (4) planned impulse buying, which takes place when a consumer enters a store to buy a specific product, but buys another product which is on sale instead. This schema fails to clarify what impulse buying actually is, although Stern (1962) identifies nine factors that influence unplanned buying: low price, marginal need for the item, mass distribution, self-service, mass advertising, conspicuous store display, short product life, small size and ease of storage.

Impulse purchases were later categorized based on the extent of planning that exists before a consumer faces instore stimuli. The associated degree of planning categories are: (1) product and brand- where before entering the store, the consumer has decided which product s/he plans to purchase, but not any specific brand; (2) product

class only- where before entering the store, the consumer has formulated which product class s/he plans to purchase, but has not decided on any specific products within the class; (3) need recognized- where before entering the store, the consumer recognizes that s/he has a particular need but hasn't decided on any specific class, product, or brand s/he intends to purchase; and (4) need not recognized- where before entering the store, the consumer does not recognize any need, or the need is latent until s/he is exposed to a particular product and/or stimulus (Kollat and Willett 1969).

Impulsive behavior is believed to apply exclusively to the need not recognized category when associated with purchasing behavior (Cobb and Hoyner 1986; Piron 1991). This judgment fails to recognize that impulsive behavior varies along a continuum in terms of magnitude and persistence, and that it can exert an influence within any purchasing category. Kollat and Willett (1969) investigated the relationship between unplanned purchasing and these three variables: demographics, general food shopping behavior, and personality characteristics. The only demographic variable found to be associated with unplanned purchasing is the number of people living within the household. The general food shopping behavior variables that were found to be associated with unplanned purchasing included: the number of shopping trips made per week, the distance traveled to the store, the day of the week, the time of the day and the size of store. Impulsiveness was one of the personality variables found not to be associated with unplanned purchasing.

The study failed to describe how impulsiveness was measured within the supermarket setting. Furthermore, the lack of association between impulse behavior and the unplanned purchases reflects the ambiguity which permeates throughout the marketing literature on this topic.

Impulse buying research has come under widespread assault for its theoretical and methodological shortcomings for the following reasons: (1) the taxonomical research has showed itself to be ambiguous and scanty; and (2) impulse buying research has lacked a sound theoretical framework needed to conduct empirical studies. Moreover, a behavioral model hasn't been developed to explain impulse purchasing and how it relates to other forms of impulsive behavior (Rook 1987).

Impulse Buying - Behavioral Traits

Rook's (1987) exploratory study of impulse buying is congenial to the epistemological call for a more experiential research approach (Holbrook and Hirschman 1982; Levy 1982; Rook 1985, 1987; Sherry 1984). The study uncovered eight distinctive behavioral traits connected with impulse buying experiences: (1) unpremeditated urges to buy- this urge was explicitly identified by 32 percent of the sample- although the drive was often triggered by visual confrontations with a stimulus; occasionally people felt the urge when they were at home with no known encountered visual stimuli; (2) power and compulsion: intensity and force- 31 percent of the sample volunteered to the interviewer that they felt a powerful compulsion to buy something immediately- they spoke of animal like needs and desperation; (3) excitement and stimulation- a feeling that varied in intensity along a continuum- a few respondents said it was "no big deal" while 19 percent of the sample described this sudden urge to buy as wild, thrilling, or exciting- a few respondents described their experience as hot flashes or a sudden surge of energy,
(4) synchronicity- 5 percent of the sample reported stories involving magical occurrences and displacement of responsibility- the items were considered to be predestined for them;
(5) product animation and fantastic forces- 6 percent of the sample associated the impulse purchase with mystical properties- this affiliation may be used to help relieve them of guilt by displacing the blame from them to the product; (6) hedonic elements: feeling good and bad- 41 percent of the sample reported feelings of hedonic elements. Many said that the purchase made them feel light, high, satisfied, and good- many felt bad about the purchases, feeling distressed, hopeless, and out of control;
(7) conflict- 29 percent of the sample expressed ambivalence around the purchase, expressing an emotional conflict between good and evil or pleasure and guilt and; (8) disregard for consequences- a few respondents discussed how they knew of the potentially negative consequences but ignored them.

This study was built on previous studies which discuss consumer cognitive states that presumably contribute to impulsive behavior (Rook 1987).

Affect

Moods are affective states that are subjectively interpreted by an individual at a given point of time (e.g., an individual might be in a violent mood or a sexual mood). Most models in consumer behavior fail to explicitly acknowledge the role of mood states (Gardner 1985). Belk (1985) attempts to amalgamate mood states with consumer behavior. The term "antecedent state" describes all of the momentary psychological, physiological, and monetary realities that accompany a consumer when s/he is confronted with a marketing stimulus driven situation.

Mood states may marginally influence recall, affective responses, and other types of behavior. Furthermore, mood states may be bimodally distributed. Thus consumers who are in good moods will likely choose to purchase items that are linked with positive outcomes and avoid items that are linked with negative outcomes. In addition, consumers who are in bad moods may apt to go shopping in order to inspirit themselves and may be less concerned with the outcome of the purchase (Langer 1983). Perhaps the absolute value of the consumer's mood state (very good moods and very bad moods) is positively related with the degree of impulse intensity, since the consumer might tend to act in a more driven mode in these states. Increased understanding of mood states and their relationship to impulse buying is likely to shed light on both subjects.

Individual Factors

Consumer creativity can be thought of as the ability of a consumer to solve consumption oriented quandaries. Novelty seeking has been found to be positively correlated with consumer creativity. Two components of consumer creativity are: (1) the interconcept network density (networks are connections between concepts) and (2) the repertoire of consumption situations (a consumer's given experience in a particular buying situation). Consumers with higher levels of creativity (as compared with consumers with lower levels of creativity) are more likely to consider numerous consumption alternatives. Therefore, they are more likely to consider novel situations (Hirschman 1980).

Materialism has been found to be negatively correlated to happiness and positively correlated to impulse buying propensity (Belk 1984). Happiness seeking by way of consumption is culturally learned, is quite widespread in our society and appears to be on the increase (Belk 1985).

Linked to the concept of materialism is the lifestyle of recreational shopping. People's desire to shop for the purpose of recreational activity within this society has likely increased the amount of impulse buying that is currently taking place (Tauber 1972). Recreational shoppers tend to shop for diversion from their normal, seemingly mundane daily activities by looking for: (1) self-gratification; (2) reduction in loneliness, alienation and depression; (3) strong sensory stimulation (keeping themselves happy by seeking the opportunity to touch, see, smell, taste, and hear different types of merchandise); and (4) physical exercise (Bellenger and Korgaonkar 1980).

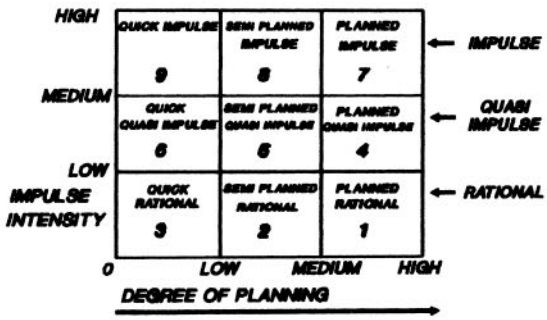
Impulse Buying - A New Framework

Current research efforts on impulse buying tend to focus on two major dimensions of this phenomenon: 1) the types of behavioral elements, environmental factors and associated cognitions at play (Rook 1985, 1987; Cobb and Hoyner 1986; Weinberg and Gottwald 1982), and 2) the degree of planning that is undertaken by the consumer before s/he purchases a product (Cobb and Hoyner 1986; Kollat and Willett 1969).

One study implicitly describes impulse intensity (Rook 1987). Another study attempts to measure impulse intensity (Weinberg and Gottwald 1982). However, no study has attempted to relate impulse intensity to the degree of planning that the consumer undertakes. Such a comparison would serve two purposes: 1) it would help to expel the prevailing ambiguity on the subject and 2) it would act to facilitate a better understanding of the phenomenon by allowing researchers to relate their behavioral, cognitive, and environmental findings to a useful, uniform matrix. The Impulse/Planning Matrix is designed to fill this need.

Looking at **figure 1**, the Impulse/Planning Matrix works along Impulse Intensity and the Degree of Planning Dimensions. The x-axis is the Degree of Planning axis and the y-axis is the Impulse Intensity axis. The Degree of Planning axis is positively correlated to the amount of time it takes for a consumer to make a purchasing decision. The degree of planning is a function of the degree of cognitive effort that is expended by a consumer on an information search before choosing and purchasing the product offering(s). Additionally, the degree of planning can be ascertained by determining the depth of the analysis (e.g., was the product, brand, class, and need considered before entering the buying environment?) Furthermore, as the degree of planning increases, higher involvement purchases are generally taking place.

FIGURE 1
IMPULSE/PLANNING MATRIX



The y-axis represents the Impulse Intensity that influences a purchase, or the magnitude of the impelling force associated with a purchase situation.

The following examples are intended to show how the matrix is used. (1) A Planned Rational situation is likely to involve the purchase of a high involvement, low emotional purchase. For example, a low-risk I.R.A. (e.g., utility stock based portfolio) purchase may involve an important decision that involves careful, rational, logic-driven, parsimonious decision making; (2) a Semi Planned, Rational situation may entail less cognitive effort than Planned Rational situations. The product choice may have been made, but the brand choice may not be made until the consumer is at the store and sees the particular brand on sale. For example, a consumer might go to the supermarket with a gallon of milk on her shopping list (product type), but the brand selection is made at the store depending upon the prevailing brand prices; (3) a Quick Rational situation may involve the purchasing of a brand by a brand-loyal customer. In this instance little planning is needed, inasmuch as the consumer knows which brand s/he will buy when a depletion situation occurs. For example, if a consumer is at a supermarket and s/he is in short supply of tuna fish, upon visual contact with the product and/or at a point of purchase display, s/he may recall the need for the product/brand.

Quasi Impulse situations involve a mixture of irrationality and analytical thought. Most purchases probably fall into this category. An event involving a (4) Planned, Quasi Impulse situation could be the purchase of flowers at the

supermarket. Although the intention to purchase flowers was formed at home, once the consumer is confronted with the wide selection of flowers, s/he may purchase a larger than planned bouquet, or s/he may purchase roses instead of carnations. In this example, the planned purchase is strongly influenced by both rational and impulsive elements; (5) an event involving a Semi Planned, Quasi Impulse situation could be the placement of a long distance phone call. The plan to make the call was informally thought of earlier in the day and the sight of the telephone, or a "reach out and touch someone" advertisement incited the decision to call. In this instance the decision was partially rational and partially impulsive and the call was partially planned; (6) an example of a Quick Quasi Impulse situation involves a ravenous tourist purchasing a slice of pizza from a streetside pizza parlor. The purchase decision occurred as soon as the tourist saw and/or smelled the pizza and the idea to eat was instantaneously planned. Yet the decision may have involved an element of rationality (e.g., "I've heard Rays Pizza is the best in the city"), and an element of impulse (e.g., "I've got to stuff my face without delay").

An example of a (7) Planned Impulse situation involves a person with a great deal of disposable income. S/he sees a poster for the new BMW convertible. S/he's "got to have it now 'cause it's me." Then s/he phones her favorite BMW dealership (s/he already owns 3 other BMWs), and asks them if they have the car in stock. Then s/he drives to the dealership the next day and "grabs" the new car; (8) an example of a Semi Planned Impulse situation involves a person who wakes up in the morning realizing a "need" to purchase some liquor. While at the liquor store s/he sees a $75 bottle of D.O.M. Perignon Champagne, sees the beautiful flowers on the bottle and "grabs it"; (9) an example of a Quick Impulse situation involves a mother and child at the checkout stand in a local supermarket. While the mother is paying for the items the child sees a Pez candy dispenser portraying Goofy. The child cries and apprises the mother that s/he's "got to have it". S/he then opens up the package and begins eating the candy. Subsequently, the mother decides to pay for the item. This is a Quick Impulse situation for the child, while for the mother this is likely a Semi Planned, Rational situation, since she wants her child to be happy and she may want to avoid possible shoplifting charges. Then the mother picks up a horoscope book at the checkout stand and realizes that she's "got to have it". This is likely a Quick Impulse situation.

These examples are designed to illustrate the framework and how it can be used to help analyze various buying situations. As measurement methodology improves it may become simpler to classify any purchase situation.

Conclusion

Impulse buying is not synonymous with degree of planning. Purchase situations may involve high degrees of planning and still involve high degrees of impulse intensity. Alternatively, purchase situations may be unplanned but quite rational.

Future research must focus on how unplanned purchasing is related to impulse intensity. More work is needed on impulse measurement methodology before these questions can be empirically answered. Work on facial expressions (Weinberg and Gottwald 1982) will help to facilitate the exploration of this phenomenon. In addition, exploratory qualitative research to validate the proposed typology and to gather consumers' emic perceptions of these different types of buying experiences is needed.

Impulse buying and its relationship to affect, materialism and ritualism must be studied in order to help provide a more in depth understanding of the phenomenon.

Research on impulsive buying propensities has focussed on its relationship with demographics, but hasn't yet focused on its relationship with personality traits (including Type A versus Type B), creativity and locus of control. These individual differences are part of the right brain, experiential view of consumer behavior and are not included within traditional information processing frameworks (Holbrook and Hirschman 1982). Future work on the experiential aspects of information processing may help provide humanity with a better understanding of the impulse buying phenomenon.

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SENIOR CONSUMERS AND TECHNOLOGY: NEW DIRECTIONS FOR RESEARCH

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Abstract

This paper examines seniors' perceptions and usage of technologically advanced products and services. The authors present a succinct review of relevant literature and past research findings pertaining to this area and discuss several factors which may be useful to marketing strategists in understanding seniors' use or non-use of technology. The authors discuss the effects of knowledge base, perceived abilities, memory control processes, and physiological changes upon seniors' perceptions of and behavior toward certain technologically sophisticated products and services. Throughout the paper, the authors advance priorities for future research in this area.

Introduction

The emergence of senior consumer segments as focal points for marketing strategy is evident in both the applied and academic literature. Projected growth in senior segments continues to dominate demographic profiles of future decades (Spencer and Long 1983; Statistical Abstract of the United States, 1988). Their importance in terms of discretionary dollars, wealth and holdings, and consumption patterns for travel, leisure, healthcare and service industries in general, is well documented (French and Fox 1985; Lazer 1985; Petre 1986). With increased practitioner attention, calls for research profiling the needs and concerns of senior consumers have become more prevalent in the consumer and marketing research literature (Schewe 1981; Greco 1987; Tongren 1988, Belk Smith and Moschis 1989).

Recent work has indicated a particular need for exploration of seniors' use of and reaction to technological innovations in products and services (Zeithaml and Gilly 1987).[1] The focus on technologically advanced products and services is of special interest given the potential of such products/services to enhance the quality of life for senior citizens. Koncelik (1982) argues that not only can seniors afford new technology, but they may be more likely to acquire it before younger consumers can afford it. However, despite proven benefits in labor and time savings (Haber 1986), senior consumers consistently exhibit less interest in and actual ownership of technologically advanced products (Bearden and Mason 1979; Nadler 1980; Kerschner and Chelsvig 1981).

In a qualitative focus group discussion with senior citizens in early Fall of 1991, the authors uncovered significant negative reactions toward some products/services including automatic teller machines (ATMs) and VCRs. However, other technology including electronic funds transfer (EFT) and microwave ovens were widely used and accepted among the group examined.[2]

Although studies of isolated products/services have been conducted, what is now needed is an integrative perspective which provides an analysis of the complex network of factors which encourage or inhibit seniors' use of technologically advanced products and services. The focus group discussion revealed positive attitudes toward and use of certain technology, however, large sample data still reveals a lower tendency among seniors to use microwave ovens, personal computers, VCRs, telephone answering machines, and cordless phones (Simmons Market Research Bureau, Inc. 1987). If negative perceptions and attitudes toward such technology among seniors limits their exposure to and use of technologically advanced products and services, labor and time savings benefits will not be realized.

The authors propose priorities for exploring the influence of cognitive, physiological and social process factors on senior citizens' global perceptions of and attitudes toward the usage of technologically advanced products and services. Bearden, Mason and Smith (1979) offer evidence that a range of factors including financial, social, psychological and physical risk dimensions were all significant in explaining seniors' overall perceived risk and subsequent avoidance of generic prescription drugs. Exploring the range of factors which relate to seniors' general perceived risk of using technology is an important "next step" in understanding the special needs of senior consumers.

The priorities outlined below delineate factors in the task environment - both perceived and actual - which work to alter seniors' behavioral tendencies with respect to technology. Roedder John and Cole (1986) emphasize the importance of delineating when or in what "task environments" processing deficiencies in seniors occur (p. 297). The specific recognition of an interaction between the task environment and internal (perceived) states is critical in developing a more complete understanding of seniors' responses toward technologically advanced products and services. This discussion will center on outlining potential areas of interaction between internal states and environmental conditions acting to alter seniors' behavior. Specific areas to be

[1] For this paper, the authors are defining technology in very broad terms. Empirical investigations of seniors' use of technology would require researchers to focus upon narrow areas of technology.

[2] Twelve male residents of a midwest independent-living retirement community participated in a two hour structured discussion of ATMs, EFT, calculators, PCs, remote controls, and microwaves. A qualitative analysis of the focus group findings was the basis for some of the ideas presented in this paper.

explored include: knowledge base, perceived ability, resistance to change, memory control processes, and physiological limitations.

Factors Influencing Seniors' Use of Technology

Knowledge Base

One factor which could impact the willingness and ability of senior citizens to adopt technologically sophisticated products and services is the state and composition of their knowledge base. Knowledge bases are generally defined as consisting of information about concepts and the relationships between various concepts (Roedder John and Cole 1986). The contents of an individual's knowledge base influence how readily that individual can understand and use various products and services. For example, it is quite possible that a younger individual would more readily accept such technologies as automated teller machines (ATMs) since his or her knowledge base would likely contain concepts closely related to those needed to use an ATM.

Roedder John and Cole (1986) state that although past research findings indicate that young children experience difficulties in encoding and retrieving information due to their poorly developed knowledge bases, "no evidence of decrements in knowledge bases in the elderly" has been found. Several researchers (cf., Brown 1975, Reese 1976) have stated that since knowledge bases develop with experience, one would expect semantic recall to improve with age. Thus, one might conclude that seniors should have some advantage in adopting and using technologically-oriented products over their younger counterparts. However, other research indicates that this conclusion is, perhaps, premature.

Chi (1978) and Lindberg (1980) have pointed out the necessity of examining the specific content of knowledge bases instead of age-based capacity when attempting to understand how an individual will approach a specific memory usage event. Although the knowledge bases of older consumers are largely intact (as reported by Roedder John and Cole 1986), it is likely that their knowledge of specific recent technological changes and advances is inferior to that of their younger counterparts. These task specific deficiencies are important in understanding why seniors may have more trouble than the young in adopting and using technologically advanced products. Given this, it is also important to understand how these task specific deficiencies develop if the problems of older consumers in relating to technology are to be addressed. It is possible to explain part of this knowledge base deficiency through the social interaction patterns of seniors.

Disengagement theory was proposed by Cumming and Henry (1961) to explain the social aging process. The authors proposed that aging involves a gradual relinquishment of social roles and a lessening of social interaction which may be self-initiated or initiated by others. Since its inception, disengagement theory has received much criticism (cf., Hochschild 1975, 1976) largely because it attempts to explain all social aging in terms of disengagement while some seniors never disengage. However, many older individuals do exhibit some degree of social disengagement and these individuals are also engaged to some extent in informational disengagement since social contacts represent a major source of information acquisition (Olshavsky and Rosen 1987). This disengagement leaves the existing knowledge base intact; however it provides an impediment toward keeping the knowledge base current, thus seniors may be less equipped to respond to technological innovations than their younger counterparts.

Many seniors who do retain high levels of social interaction tend to socialize with others of similar age, which is not surprising given the desire for some commonality in friendship (Botwinick 1984). By socializing in this relatively restricted environment, however, seniors are also restricting potential sources of information and tend to have the same knowledge of and potential bias toward new technologies as the other members of their social network. Thus, when one member of the group tries and dislikes a new product or service (i.e. has an unsatisfactory experience with microwaveable food), the other group members may tend to adopt similar attitudes.

Those seniors who have maintained closer ties with their children may have a broader knowledge base leading to a greater acceptance of new technology. Future research should incorporate the effect of various reference groups upon seniors' knowledge and use of new technology.

Perceived Ability

Cognitive factors affecting seniors' use of technology can be either actual limitations in ability (e.g., poor memory for operation instructions) or perceived limitations which inhibit one's willingness to engage in trial usage. Researchers must separate memory/processing differences as limiting factors from seniors' perceptions and fears of their own ineptness or shortcomings in using such products. Both are important in understanding seniors' use or nonuse of technologically advanced products and services. Waddel (1975) suggests that seniors may lack confidence in their own ability to make judgments or effectively use products and services. Traits related to confidence and perceived ability may offer insight into seniors' use/nonuse of technologically advanced products, particularly when combined with an analysis of potential exaggeration in perceptions of the operation complexity of these products.

Zeithaml and Gilly (1987) point to locus of control as a possible explanation of seniors' use or nonuse of certain product technologies. Presumably, those with an external locus of control would view positive or negative outcomes as the result of fate or outside forces more powerful than themselves, while those with an internal locus of control perceive outcomes to be the result of their own actions. Lao (1974) found that older adults (60-79 years old) maintained a strong internal locus of control. Zeithaml and Gilly (1987) found that locus of control was negatively related to awareness, trial and adoption for the "elderly" sample in their study of

grocery scanners, automatic teller machines, and electronic funds transfer. The question remains as to the tendency of seniors to exhibit more of an internal or external locus of control (i.e., is this a trait which is developmental in nature) and, whether or not this is related to their use of technologically advanced products and services.

One issue that surfaces when exploring locus of control is the relationship of a strong internal locus of control to a general resistance to change. Phillips and Sternthal (1977) suggest that studies on seniors' internal locus of control indicate that they are not more susceptible to persuasion. In addition, seniors' general tendency to resist change is well documented across a variety of behaviors (Botwinick 1973, Pollman and Johnson 1974; and Kerschner and Chelsvig 1981). A parallel may be drawn here to a strong conviction to resist change in products and services.

In the qualitative focus group mentioned earlier, resistance to change was a prevalent theme. Individuals in the group expressed this feeling in comments including, "Why do we really need this product?" or "In my home town we knew everyone and you didn't see people talking to these machines," (referring to ATMs). Potential antecedents of resistance to change include 1) security - grasping for familiar surroundings for protection from the unknown and 2) pride - clinging to the products of one's own generation as a form of self-validation. Understanding the origin and depth of this general predisposition may advance our knowledge of seniors' reactions to technology.

Perceived self-efficacy may also shed some light on the creation of more hospitable product use environments for seniors. Bandura (1986) describes "perceived self-efficacy" as one's judgments of one's own capabilities to organize and execute courses of action in order to obtain levels of performance (p. 391). Future research could be directed toward identifying general tendencies among senior consumers such as perceived self-efficacy which may lead to decreased tendencies to use technology. Seniors may feel that their abilities have served them well thus far and that there is no advantage in adopting new technologies. Further, specific reasons underlying lower levels of perceived self-efficacy with respect to technologically advanced products and services may prove additionally enlightening, e.g., lack of confidence in mental alertness, memory capacity, etc., given perceived complexity of a product. Understanding such limiting internal states among seniors may direct communication efforts aimed at altering these perceptions.

Memory Control Processes

Seniors' actual and perceived mental/information processing limitations may act to significantly inhibit intended use of technology. Based on Roedder John and Cole's (1986) comprehensive review of literature exploring age-related differences in information processing, two areas are highlighted here as offering potential explanation of seniors' use/nonuse of technologically advanced products and services: 1) memory deficit and encoding/retrieval processes, and 2) the rate of presentation of information.

The generally negative relationship between age and recall for product information has been well-documented (Stephens 1982; Zeithaml 1982; Zeithaml and Feurst 1983). The question remains as to seniors' knowledge of their own memory deficits as a factor limiting their use of technologically advanced products (e.g., "I won't be able to remember how to operate such a complex product, so why try?").

Recall deficits in seniors are not simply indicative of fundamental decrements in memory capacity, but are the result of differences in memory strategies or encoding and retrieval processes (Roedder John and Cole 1986). Recall can, therefore, be potentially enhanced via the structural properties of information or retrieval cues (Craik 1977; Craik and Simon 1980; Cole and Houston 1987). The use of and promotion of recall aids or cues during product use is certainly a viable option to explore in tailoring technology to senior segments. Future research should examine strategies which enhance seniors' actual ability and perceived ability to access product information during use. Findings of few differences between seniors and younger segments for recognition tasks (Craik 1977) may suggest the incorporation of more usable visual cues in technologically advanced products and services for seniors.

An interesting issue regarding seniors' use/nonuse of technology is the rate of presentation of information. Given the interactive nature of many technologies (e.g., ATMs, remote controls), the amount of time allowed to make choices or review information could be a limiting factor for seniors with decreased processing speed and/or eyesight limitations. Phillips and Sternthal (1977) report that when seniors can control the rate of information presentation or engage in pacing, their learning proficiency is similar to that of younger consumers. This finding offers significant implications for designing interactive technologies to enhance seniors' ability to control or manage the rate of information presented. Combined with other design features which enhance the overall quality of the experience with a technologically advanced product for seniors (e.g., size of digital readout, volume of audio prompts) allowing seniors more control in the rate of information presentation could significantly alter perceived age limitations of the technology.

Physiological Changes

The basic concepts behind many of today's technological innovations and product advances have the potential of enhancing the welfare of senior citizens. It is our contention, however, that too often the end product falls short of this potential by not dealing with the physiological changes encountered by the aged. With seniors becoming a more affluent group, as well as comprising a greater proportion of the consumer population, ignoring such needs (due to cost,

ignorance, etc...) would be both socially and managerially inept.

Schewe (1988) provides a thorough discussion of the physiological changes taking place throughout the aging process and how marketers might deal with such changes. He examines changes in the sense modes (e.g., hearing loss, limited vision, and loss of sensitivity in touch and taste), as well as physical characteristics (e.g., loss of muscle strength and finger dexterity, etc...). It is his contention that products and advertisements today are most often designed with the younger adult in mind. Schewe feels it is essential that the product's manufacturer understand the limitations encountered by the aged, and suggests that since physiological changes differ by individual, companies may need to market more than one variation of the product to meet the needs of more than one senior segment. That is, we should concentrate more on physiological capabilities than on age itself in segmenting markets.

Physiological changes are inevitable for all humans, but as Schewe points out such changes occur at different rates for individuals. His argument for segmenting the market by physiological (and other) differences, however, needs further investigation. Providing one version of a new technology for those with vision loss while providing another version for those with a hearing deficiency may not benefit society either as a whole or in the long-run. Such a strategy may be very costly to consumers (both seniors and non-seniors), and might also result in providing a product that could quickly become obsolete, especially for seniors. A product that provides help for a senior starting to lose his/her vision may be of little value if several years later this same person has experienced a substantial loss of hearing. Providing a product that would address both problems, as well as others (touch sensitivity, etc...) may be less costly due to economies of scale in production and a longer use by the consumer. Marketers of new technologies must investigate both seniors and non-seniors' (i.e., future seniors) needs in an effort to provide a product that can be used throughout many of the physiological changes humans eventually experience. In some cases, one product will simply not provide for the needs of both the aged and the younger consumers. It is to the benefit of both marketers and consumers, however, to discover which products require some market segmentation and which products, if properly designed, can provide a more homogeneous benefit.

While knowledge of limitations is essential in designing technology used by seniors, it is also vital that the manufacturer know which physiological changes have no influence on a particular product's use. Perhaps microwaves, for example, should be designed to accommodate physiological changes involving hearing loss and loss in touch sensitivity but not necessarily loss of vision. Quite possibly, most seniors with significant loss of vision may have no desire to use this product even if voice directions, better lighting and/or larger lettering/numbering were used. Obviously, marketers must incorporate good business sense into the desire to provide a less discriminating product.

In the focus group discussion, many complaints were aired concerning the particular design of most ATM machines. Even if most concerns were remedied by the manufacturer, however, not one of the participants indicated they would be willing to use the machine. Their rejection of this service-oriented machine was due primarily to their desire to know their banker (i.e., wanting a personal contact with the people handling their money). Such an attitude may well be short-lived however since future senior citizens will be those brought up in an environment that has stressed greater efficiency and convenience and less personal service. Thus, it is essential that marketers understand the desires and perceptions of present day seniors while preparing for the changing attitudes of future seniors.

A resounding opinion of the seniors in our focus group was that today's engineers and other developers of new technology do not have seniors in mind when building a product. A thorough investigation of the prevalence of this attitude and potential neglect is also warranted. Do a majority of the aged population really believe this, and secondly, do engineers, etc... truly ignore the needs of seniors? The argument that creators of new technology ignore the physiological changes incurred by most seniors has interesting implications. In the development of a new technology, does the developer consider the consequences of ignoring the needs of seniors when s/he will experience similar physiological changes later on in life? That is, if younger adults are not concerned about the welfare of current seniors, are they also not concerned about the welfare of future seniors (namely themselves) in product use? Is it a common perception that newer technology will take over in the future and that current technological advances will soon be outdated?

Summary and Conclusion

It is clear that marketers must recognize the significance of senior segments in developing marketing strategy. Demographic projections point to tremendous growth in the senior segments for the next several decades, and current consumption patterns already indicate seniors' purchasing power. Despite the flexibility enjoyed by seniors in discretionary spending, data consistently indicates that they are under-represented in buyer profiles for technologically advanced products and services.

This paper has outlined priorities for future research exploring seniors' use of technologically advanced products and services. It is our contention that a combination of cognitive, social process and physiological factors may interact to influence seniors' behavioral tendencies with respect to technology. Future research must be directed toward delineating the interaction between internal states and environmental conditions acting to alter seniors' responses toward new technology.

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MODERATING INFLUENCES ON THE RELATIONSHIP BETWEEN JOB OUTCOMES AND BOUNDARY ROLE AMBIGUITY

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The paper presented here aims to develop theoretically grounded hypotheses for examining several moderators of the relationship between role ambiguity and various job outcomes. This follows Jackson and Schuler's suggestion that investigation of potential moderators, especially for the relationship between role ambiguity and such important outcome variables as job satisfaction, performance, tension and intentions-to-turnover, is likely to provide clues to the wide variability in results and may help account for the significant "unaccounted" variance in the findings for these outcome variables.

Background and Research Hypotheses

The underlying theoretical framework for understanding the interrelationships among individual differences, organizational factors, job outcomes and role ambiguity was initially provided by Kahn et al. (1964). In this framework, perceived role ambiguity is thought to occur when the focal person feels that he/she lacks *salient* information needed to effectively enact his/her role and includes ambiguity concerning role definition, expectations, responsibilities, tasks and behaviors involved in one or more facets of the task environment.

Jackson and Schuler observed that it is critical to examine potential moderators of the role ambiguity ——> job outcomes relationship because such examination would provide clues to the wide variability in findings across studies. Of the various outcomes examined, Jackson and Schuler reported considerable variability in the relationships between role ambiguity and satisfaction, performance, tension and intentions-to-turnover; consequently, they specifically recommended moderator studies for these job outcomes. This motivated our study of the various moderators. Unfortunately, few previous studies have explored moderators of the focal relationships for boundary spanners. This gap undermined our attempts to develop firm hypothesis about which moderators will likely affect which job outcome in which way. As such, the following discussion is based on limited research and speculations of previous researchers. Consistent with this, our hypotheses should be viewed as exploratory.

Experience. Walker et al. (1975) and Schuler (1975) have cogently argued for the moderating role of a boundary spanner's experience on the job. This argument appears to be based on two reasons. First, as boundary spanners accumulate greater experience on the job, it is likely that they learn how to effectively deal with role ambiguity such that they are not adversely affected (e.g., in terms of satisfaction, performance) by ambiguous role conditions. Second, it is possible that experienced boundary spanners learn to build psychological defense mechanisms that provide "protection" from ambiguous role conditions. Lysonski and Johnson (1983) provide empirical support for the moderating role of experience in the relationship between role ambiguity and various job outcomes.

Locus-of-control. Several researchers have argued for the moderating effects of locus-of-control. The key argument appears to be that, in highly ambiguous role conditions, internals are likely to respond with much less defensive and more task-oriented coping behaviors than externals. Consequently, internals may not face dysfunctional outcomes of role ambiguity to the extent that externals do. However, Jackson and Schuler (1985, p. 35) have noted that while "the moderator hypothesis [for locus-of-control] is more prevalent, ... the evidence for the moderator hypothesis is less supportive." Thus, while Behrman et al. (1981) found that the moderator hypothesis was not supported for satisfaction and performance outcomes, other studies provide some evidence in support of this hypothesis (Batlis 1980).

Size. Because boundary spanners in small- to medium-sized firms face a significantly different task environment than their counterparts in large-sized firms, the moderating role of organizational size on the role ambiguity ——> job outcomes relationship is plausible (cf. House and Rizzo 1972). In small- to medium-sized firms, boundary spanners may perceive that they have greater control on their task environment because they have smaller (1) role sets, (2) chain-of-command, and (3) span-of-control and, possibly, greater autonomy than their counterparts in large-sized firms (cf. Kahn et al. 1964). These factors may facilitate boundary spanners in small- to medium-sized firms to better cope with role ambiguity and, consequently, be less prone to its dysfunctional outcomes. These arguments are speculative, however, since few studies have examined this moderating hypothesis.

Level. Kahn et al. (1964) recognized that the hierarchical level of the boundary spanner is likely to moderate the relationship between role ambiguity and various job outcomes. They reasoned that role ambiguity is more detrimental at higher organization levels because most likely it becomes a larger portion of the job, and yet is largely outside the control of the boundary spanner (see Hammer and Tosi 1974; Schuler 1977). Although no marketing study could be traced that had examined this relationship, organizational psychologists have found some support for this relationship (Fisher and Gitelson 1983).

Based on the preceding discussion, we posit the following hypothesis for the moderating effects of experience, locus-of-control, organizational size and hierarchical level.

> ***H_1: Compared to the more experienced boundary spanners, the less experienced boundary spanners would depict a stronger (positive or negative) relationship between the various facets of role ambiguity and (a) job satisfaction, (b) job performance, (c) job tension and (d) intentions-to-turnover.***
>
> ***H_2: The relationship between the various facets of role ambiguity and (a) job satisfaction, (b) job performance, (c) job tension and (d) intentions-to-turnover would be stronger for externals than for internals.***

H_3: ***Compared to boundary spanners in small- to medium-sized firms, the boundary spanners in large-sized firms would depict a stronger (positive or negative) relationship between the various facets of role ambiguity and (a) job satisfaction, (b) job performance, (c) job tension and (d) intentions-to-turnover.***

H_4: ***The relationship between the various facets of role ambiguity and (a) job satisfaction, (b) job performance, (c) job tension and (d) intentions-to-turnover would be stronger for boundary spanners at higher hierarchical levels (e.g., managers).***

Conclusion

Only a few studies have empirically examined moderators of role ambiguity—job outcome relationship; none of these, however, utilized a multifaceted role ambiguity construct (for exception see Behrman et al. 1981). Because the delineation of significant moderators is crucial for understanding the operative contingencies (e.g., in the role ambiguity-satisfaction link), and in accounting for the variability in results across studies (cf. Jackson and Schuler 1985), our hypotheses yield fruitful guidelines for future research.

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MARKET MAVENS AND THE RELATIONSHIP BETWEEN SMART BUYING AND INFORMATION PROVISION: AN EXPLORATORY STUDY

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Abstract

The hypothesis that being a market maven moderates the form of the relationship between the "smart buying motive" and marketplace information provision is tested with a sample of husbands and wives. The hypothesis is not supported. Potential reasons for this finding and directions for future research on the antecedent processes associated with marketplace information provision are discussed.

In 1987, Feick and Price introduced the market maven concept to the consumer literature. They described market mavens as:

> "...individuals who have information about many kinds of products, places to shop, and other facets of markets, and initiate discussions with consumers and respond to requests from consumers for market information."

In a national sample, Feick and Price (1987) found that 46 percent of respondents knew of people who fit the description of market mavens and, of those who knew mavens, 57 percent considered them "very important" or "extremely important" in evaluating different brands or models of products. In this same research project, Feick and Price empirically determined the following characteristics of market mavens:

1. The tendency to be a market maven is correlated with opinion leadership for specific products.

2. Market mavens tend to be early users of new products and brands.

3. Market mavens have a greater tendency than the average public to seek information about the marketplace and provide that information to others.

In another study, Higie, Feick, and Price (1987) found that market mavens discuss retail store image attributes for grocery, discount, and department stores more than the average consumer. They also found that market mavens read more direct mail advertisements and women's magazines than other consumers. In addition, Price, Feick, and Guskey-Federouch (1988) found that market mavens are more likely than other consumers to: use shopping lists, plan grocery shopping with advertising, budget for groceries, and use coupons.

While existing research demonstrates the importance of the market maven concept in understanding consumer behavior, Price, Feick, and Higie (1987) suggest that more research is needed to truly understand why and how market mavens influence the marketplace. Demographics provided only limited information in that except for the tendency to be female, mavens are similar to nonmavens and psychographically little is known about mavens.

Motives for Adopting the Role of Market Maven

The tendency to be a market maven is a role which people adopt. It is a social role which includes possessing and providing marketplace information. Feick and Price (1987) suggest two reasons why people might adopt the role of market maven. First, interest in the marketplace or "marketplace involvement" may cause people to become marketplace experts and share their knowledge with others. Second, the desire to use marketplace information in social exchange could cause people to become market mavens. The maven's desire to use information for social exchange may be associated with altruism or the expectation of reciprocity in the form of information or favors from other people. It may also be associated with personality factors such as extroversion or the enjoyment of talking.

Why Market Mavens Provide Information

Considering the potential motivations for becoming a market maven it is likely that market mavens have both an interest in the marketplace and a gregarious personality which allows them to make use of that interest in conversation and social exchange. One reason for interest in the marketplace is the desire to be a smart buyer. In this paper smart buying refers to a general tendency to seek maximum value. The findings of Price, Feick, and Guskey-Federouch (1988) regarding the diligent shopping behavior of market mavens provide ample evidence that mavens are motivated to be smart buyers. However, not all bargain conscious shoppers engage in information provision and Price, Feick, and Guskey-Federouch emphasize that mavens are socially motivated. They state that, "An integral part of the maven concept is social activity." Given the social nature of market mavens it would seem that only when the "smart buying motive" is combined with the socially oriented personality of a market maven would it lead to information provision. Therefore, there should be a greater relationship between information provision and the "smart buying motive" when someone is a (socially active) market maven than otherwise. In other words, market mavenism should moderate the form of the relationship between the "smart buying motive" and information provision.

A moderating relationship occurs when the relationship between an independent and dependent variable is influenced by a third variable (Arnold 1982, Baron and Kenny 1986). In the current study it is expected that the relationship between the "smart buying motive" (independent variable) and information provision (the dependent variable) will be influenced by whether or not a person is a market maven (moderating variable). This moderating

relationship should be distinguished from a mediating relationship which would imply that the independent variable ("smart buying motive") causes the mediator (market mavenism) which causes the dependent variable (information provision).

It seems unlikely that a person becomes a social, altruistic market maven simply because of an interest in smart buying. However, it is very likely that people who are highly social and altruistic (market mavens) will exhibit a greater relationship than other people between their desires to make smart buys and their tendencies to provide information about the market place. Therefore, the purpose of the current study is to empirically test for the existence of this moderating relationship.

Data Collection

The respondents in this survey were married couples chosen randomly from a western city. The interviewing procedure involved the personal delivery and collection of self-administered questionnaires. This technique is a variation of the "drop off" method described by Sudman, Greeley, and Pinto (1965). The difference between this procedure and the drop-off method is that the interviewer waits for the respondent to complete the questionnaire rather than returning to pick it up at a later date.

The interviewers were given a list of randomly selected respondents and asked to contact each household marked on the list. If the selected households could not or would not participate, interviewers were instructed to contact the next person on the list until a quota was obtained. Only households where both the husband and wife agreed to participate were included in the survey. If husband and wife were not both home during the initial call, the interviewer would make an appointment to return and have the couple complete the questionnaire during the return visit. A sample of 306 couples was obtained from the sampling process. A demographic profile of the sample is presented in **Table 1**.

The questionnaire for the survey included the market maven scale, a scale measuring a person's desire to make smart buys, measures of information provision and other psychographic and demographic questions.

The Market Maven Scale

The market maven scale measures a person's tendency to be a general provider of many types of market information to others on an informal basis. It is a six item, seven-point, Likert Scale developed by Feick and Price (1987). In validating the scale, they obtained a Cronbach's alpha of .82. They also demonstrated the nomological validity of the scale by obtaining significant correlations between its scores and measures of opinion leadership, innovativeness, possession of market information, provision of market information, and information seeking.

The Smart Buying Scale

In order to measure a person's desire to be a smart buyer, five items were taken from the Slama and Tashchian (1985) generalized purchasing involvement scale. These items all related to the importance of smart buying or getting the most for one's money. The items did not mention specific products. Used as a scale the items attained standardized item alpha's of .75 for husbands and .76 for wives.

Measures of Information Provision

In determining how often respondents provide market related information to other people, five-point scales were used. The stem of the scales said, "Please rate the indicated items on how often you tell others about them." The responses were rated from one (never) to five (very often). Intermediate response categories were almost never, not very often, and somewhat often. There were 21 items, including prices, sales, product quality, store personnel, store location, new products, food products, and items relating to 14 product categories. The product categories were not gender biased and included

TABLE 1
DEMOGRAPHICS OF THE SAMPLE

	Percent			Percent
AGE	Husbands	Wives	FAMILY INCOME	
Less than 25	24.3	32.4	Under 5,000	1.5
26-35	32.8	28.5	5,000- 9,999	4.1
36-45	14.8	14.6	10,000-14,999	9.7
46-65	20.7	19.5	15,000-19,999	10.9
66 +	7.4	5.0	20,000-24,999	10.9
			25,000-34,999	26.2
EDUCATION			35,000-49,999	18.3
8 yrs. or less	1.8	.4	50,000-74,999	14.7
9-11 yrs.	1.4	3.4	75,000-99,999	2.6
12 yrs.	13.7	21.6	100,000 +	1.1
1 yr. college	14.4	18.9		
2-3 yrs. college	23.6	28.0		
College graduate	26.1	18.9		
Masters	11.3	7.8		
Doctorate	7.7	1.0		

both male and female oriented products (Slama and Williams, 1990).

This method of assessing information provision is similar to that used by Feick and Price (1987) in validating the maven scale. It differs from the market maven scale in that the questions address specific products, services, and market characteristics while the maven scale items do not.

Limitation

A limitation of the current study is that market mavenism and information provision overlap conceptually. Therefore, the study should be viewed as exploratory in nature. In future studies it would be more appropriate to use extroversion or altruism as the moderating variable between smart buying and information provision rather than market mavenism as is done here. Market mavenism is used in this study because it is assumed to capture a social role which is larger than information provision and should be associated with extroversion and altruism.

Analysis and Results

The analysis was done separately for husbands and wives in order to detect potential gender differences. Previous findings on mavens had varied by gender. For example, women score higher on the market maven scale than men (Feick and Price 1987), and male mavens talk about a different variety of products than female mavens (Slama and Williams 1990).

In order to test the idea that the relationship between the desire to make smart buys and information provision would be greater for market mavens than for other consumers, the sample was divided into halves based on scores on the market maven scale (using a median split). It was hypothesized that the "form" of the relationship (Arnold 1982) would be moderated by mavenism. Regressions were run to test the idea that the relationship between smart buying and information provision changes linearly with mavenism. The regressions included smart buying, market mavenism, and their product as predictors of information provision. The significance of the product term would imply that mavenism moderates the "form" of the relationship between smart buying and information provision. The product terms for both husbands and wives were insignificant. The results are shown in Table 2.

Discussion

A limitation of this study is that market mavenism has been assumed to be associated with a helpful social personality when mavenism actually seems to contain many facets, including helpfulness, interest in new products, information possession, and information provision. This results in a lack of discriminant validity between smart buying, market mavenism and information provision. Additional research using measures of extroversion and altruism as moderating variables in place of mavenism would be a meaningful extension of the current study. Such research would show more specifically the nature of the antecedent processes associated with generalized marketplace information provision. With regard to the motives for generalized marketplace information provision, it is likely that there will be gender differences.

Although overlapping distributions would exist for men and women, evidence suggests that women have a conversational style which is based on building intimacy, sharing and rapport, while men have a conversational style which is based on establishing a status hierarchy. Studies with children show that cooperation and rapport building are learned early by girls in social situations, while "pecking order" considerations predominate among boys (Tannen 1990). Consistent with this notion, a recent consumer behavior study made the otherwise surprising finding that teenage boys tend to be more status conscious than are teenage girls with respect to the purchase of clothing (Siguaw, Simpson, and Simpson 1991).

According to Tannen (1990), men like to engage in "report talk" in which they provide useful information to others, enhancing their image of expertise and their position in the "pecking order."

TABLE 2
TESTING WHETHER MAVENISM MODERATES
THE SMART BUYING--INFORMATION PROVISION RELATIONSHIP

Testing for moderation of the form of the relationship

	Variable Added					
	Smartbuying (SB)		Mavenism (M)		SB X M	
Dependent Variable	R sq. Change	F Value	R sq. Change	F Value	R sq. Change	F Value
Wives Information Provision	.03	8.4*	.21	72.8*	.00	.54
Husbands Information Provision	.06	15.3*	.20	70.0*	.00	.29

*Significant at P<.05

Women, however, often engage in "rapport talk" in which the desire is not so much to provide information as it is to build relationships (Tannen 1990). Therefore, it would seem that among women, generalized marketplace information provision would be associated with being helpful and social. More research would be required to determine if information provision among women is motivated by desires to be helpful and build rapport (as well as desires to be a smart shopper) while among men, it is motivated by status hierarchy considerations as would be implied by differences in male and female conversational style.

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ATTRIBUTE IMPORTANCE IN DETERMINING INDUSTRIAL BUYER SATISFACTION

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Abstract

This article reports survey research findings that measure the importance that industrial buyers attach to eight attributes relating to post-purchase satisfaction and that compare organizational buyers' and industrial distributors' assessment of attribute importance for three products--ball bearings, electrical components, and welding supplies.

Paired comparisons were used to measure attribute importance of overall reputation of the supplier, vendor's flexibility in adjusting to the buyer's needs, length of time vendor has been a supplier, acceptable price, product quality, deliverability, sales service after the purchase, and feedback from users within the buyer's company. Usable responses were received from 549 purchasing agents from a national mail-survey sample.

Significant differences were found among various attributes. Product quality is more important than all other satisfaction attributes. Further, deliverability and flexibility in responding to the buyer's needs are more important to satisfaction than is price.

Attribute contribution of industrial buyer satisfaction was found to be consistent and stable regardless of organizational structure of the buying firm, buyer experience, or the number of competing distributors, thereby demonstrating that the post-purchase evaluation process can be modeled.

Introduction

While the marketing concept is not always the strategy of choice (Houston, 1986) it is intuitively appealing to consider what is important to industrial buyers in their quest for satisfaction. In particular, the importance of marketing variables controllable by the marketing organization would appear to be a logical starting point.

The concept of customer satisfaction is relevant to both overall strategic marketing planning for the firm as well as to strategic and tactical implications for a salesforce.

It has been proposed (Weitz, 1981) that the relationship between selling behaviors and selling effectiveness is contingent upon the selling situation as well as resources of the salesperson, the relationship between the buyer and the seller, and the buying task of customer. Inherent in this framework is the idea that salespersons possess the ability to accurately distinguish customer performance standards. While these notions were developed in regard to salesperson behaviors, the same logic applies to selling organizations. That is, selling organizations should also possess the ability to identify customer performance standards.

It has been proposed that adaptive behavior by salespersons also contributes to selling effectiveness (Spiro, 1990; Weitz, 1978). However, in order to adapt to different buyers it is imperative that those attributes considered to be important to buyers are identified. Again, this line of thinking also applies to selling organizations and should not be limited to salespeople. To increase selling and service effectiveness, organizations should look for differences in buyer's desires and adapt accordingly. Indeed, researchers have found differences among buyers and buying situations. One study (Segal, 1989) found that those companies relying on single sourcing differed from those companies relying on multiple sourcing in terms of relative vendor attributes. For example, single sourcing users perceived convenience of order entry to the number one consideration, while multiple sourcing users considered the quality of products offered to be most important. Another study (Sinclair, 1990) found differences in attribute importance by types of builders in a study related to the siding products industry.

The discovery of buyer differences provides the selling organization an opportunity to tailor their offerings to specific segments. The study of attribute importance, then, is useful in the implementation of market segmentation strategies.

Satisfaction

Although extensive, the satisfaction research base has focused almost exclusively on final consumer behavior, ignoring the organizational buyer. This represents a gap in the empirical literature and is inconsistent with the huge volume of business activities that are classified as industrial purchases (Barksdale, 1984; Trawick and Swan, 1982; Williams and Rao, 1980).

A lack of research concerning organizational buyer satisfaction is perplexing because of the significance of satisfaction in repeat purchase behavior. For example, one study of purchasing agents (Trawick and Sawn, 1987) indicated a positive relationship between satisfaction and repeat purchase. Their findings were confirmed in another study (Vyas and Woodside, 1984) which concluded that most industrial buyers believed in rewarding suppliers for good performance.

Purpose

The purpose of this investigation is to measure the importance of relevant purchasing variables as perceived by industrial purchasing agents and to determine attribute contribution to industrial buyer satisfaction. A study of this type holds important implications because such information will enhance the marketing manager's ability to make resource commitment choices, improve the nature and effectiveness of the working relationship between vendors and purchasing organizations, and provide a higher level of satisfaction to a supplier's industrial customer.

The study first examines a conceptual structure for understanding the importance of decision variables relevant to industrial purchasing. Second, field study data from 549 purchasing agents is then used to test the research hypotheses. In conclusion, pertinent purchasing variables are compared through the Law of Comparative Judgment to determine their perceived significance to industrial buyer satisfaction.

Literature Review

Importance of the Purchasing Agent

Following a research method used by others (Perrault and Russ, 1976) this study utilizes specific products for respondent consideration. Decisions regarding specific products may avoid vague responses and thus provide the ability to draw more meaningful conclusions. Further, the products chosen (ball bearings, welding supplies, and electrical components) represent high volume, repetitive, and somewhat standardized products, there purchasing agent in the purchase decision. Thus, the purchasing agent may be appropriately used as a representative of the organization's buying center.

Identifying the Important Attributes

Responsibilities of purchasing agents include identifying, selecting, evaluating, and retaining the organization's sources of supply. Purchasers base their decisions of perceptions of vendor attributes. While the list of vendor characteristics evaluated may be similar in be similar in all purchasing organizations, the importance of various supplier characteristics to individual purchasing agents can vary.

Czepiel and Rosenberg (1976) has found that consumers are primarily concerned only with those aspects of a product or service which are considered necessary to the achievement of a desired outcome. In any given situation, the salience of possible motivations will vary. Therefore, those who study consumer satisfaction must pinpoint those outcomes which tend to "cause" or "explain" the highest degree of consumer satisfaction. Any attribute list will be somewhat arbitrary since the number of relevant attributes can vary with the product and/or the buyer. The particular combination of attributes important to one respondent is likely to be conditioned by his experience, expectation, and needs. Lehmann and O'Shaughnessey (1974) investigated the degree of attribute importance for broad classifications of products, one of which was described as routine order products (products that are frequently ordered and pose no significant problems in use), a classification that most matches the products used in this study. The purchasing agents were asked to rate, on a semantic differential scale, the relative importance of seventeen attributes in choosing a supplier. The top seven attributes were:

1. Reliability of delivery date promised.
2. Price
3. Supplier's flexibility in adjusting to the company's needs.
4. Overall reputation of the supplier.
5. Technical specifications
6. Experience with the supplier in analogous situations
7. Sales service expected after date of purchase.

The importance of these seven attributes has been confirmed by Kasper and Lemmink (1989), Dempsey (1978) and Dowst (1983).

The impact of the purchase on other people in the organization may also affect buyer satisfaction. Ralph Day (1976) maintains that the extent to which the purchaser's expectations about the reactions of others to his purchases are confirmed or disconfirmed may also have an important bearing on his satisfaction or dissatisfaction. Other research by Lambert, Dornoff and Kernan (1977) found post-choice evaluation by other organization members was important to the purchasing agent. Thus, the reaction of in-plant users may be considered important by the organizational buyer.

The eight attributes chosen for analysis in this study are as follows:

1. Overall reputation of the supplier

2. Vendor's flexibility in adjusting to buyer's needs
3. Length of time vendor has been a supplier
4. Acceptable price
5. Product quality
6. Delivery reliability
7. Sales service after purchase
8. Feedback from users within the buyer's company.

These attributes represent a relevant range of the attributes considered important in purchasing standardized products, a classification where purchasing agents play a meaningful role in supplier selection decisions.

Hypotheses

The evidence regarding attribute importance in supplier choice is mixed. One study by Dempsey (1978) concluded that no significant differences existed among the various attributes in choosing a supplier. On the other hand, another study by Lehmann and O'Shaughnessey (1974) found that economic criteria seemed to dominate the choice criteria when buying standard products, indicating that industrial buyers focused on price when selecting suppliers for these products.

In order to test differences in attribute importance an overall hypothesis (presented in null form) is offered:

H1: There is no difference in attribute importance in determining buyer satisfaction.

Both Batdorf and Vora (1983 and Corey (1983) have found that the type of organization also has an influence on attribute importance. Consequently, we posit another hypothesis (in null form):

H2: There is no difference in attribute importance in determining purchasing agent satisfaction between centralized and decentralized organizations.

Methodology

Sample

A national sample of 1,000 purchasing agents was randomly selected from the membership list of the National Association of Purchasing Management (NAPM). A pretested mail questionnaire was used to gather the assessments of attribute importance in determining organizational buyer satisfaction. Three separate personalized mailings were delivered to respondents resulting in 549 usable responses or a response rate of 54.9%. Comparing late respondents, those responding after two weeks, with early respondents provided the basis for determining nonresponse bias. No significant differences were found regarding demographic data and attribute importance scores. Consequently, nonresponse bias is likely to be small.

Measurement

The questionnaire instructed the purchasing agents to indicate one of the three specific products that they have been or currently are responsible for buying. The respondent was instructed to answer the remaining questions with respect to that product. The importance of each of the eight attributes was determined by use of forced choice paired comparisons (a total of 28 comparisons). The attribute importance choice question was framed as follows:
"Below is a list of 28 pairs of attributes. For EACH pair, choose the one attribute that contributes the most to your satisfaction with a supplier. Please be sure you pick one attribute for each of the 28 pairs."

The resulting choices were positioned on the organizational buyer satisfaction scale through the use of Thurstone's Law of Comparative Judgment. The reliability of the resulting scale was examined using the procedure previously suggested in the literature.[12]
Subsequent analysis of variance is presented in **Table 1**.

TABLE 1
SUMMARY OF ANALYSIS OF VARIANCE FOR RELIABILITY OF PURCHASING MANAGER RESPONSES

SOURCE OF VARIATION	SUM OF SQUARES	MEAN SQUARE
All	14.6943	0.5248
Law of Comparative Judgment (Linear) scale)	13.6598	1.9514
Residual, not accounted for by the linear scale	1.3570	0.0646

$R_s = 3.7736/4.1984 = 0.8988$

Approximately 90 percent of the variation is accounted for by the scale.

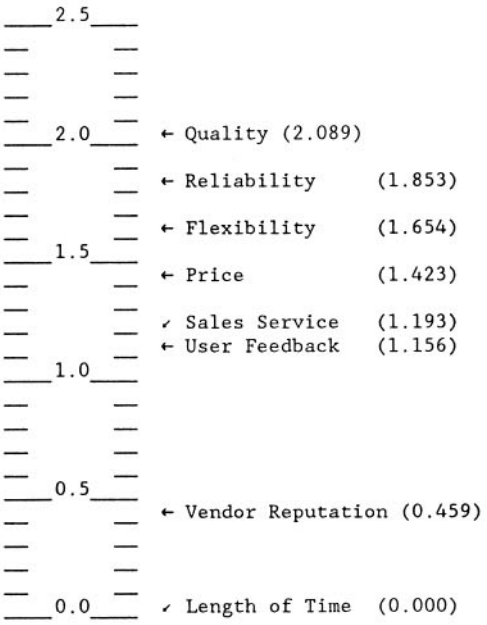
Results

A numerical constant was added to the scale value derived through the Law of Comparative Judgment so as to generate positive numbers and to facilitate interpretation. The zero point is arbitrary and should not be interpreted as an absence of importance for a particular attribute.

Tests of Hypotheses

The results of the paired comparisons indicate that the eight attributes can be arranged on the importance to satisfaction continuum as appears in **Figure 1**. A higher scale value implies greater importance for that attribute.

FIGURE 1
SCALE VALUES FOR THE EIGHT ATTRIBUTES AS JUDGED BY INDUSTRIAL BUYERS
n=549



Hypothesis 1

To determine if there was a significant difference among attributes an overall test for equality was performed (the D statistic). A significant difference was found among attributes (D=5,504 compared with a critical value of 14).

A multiple comparison range test was conducted to identify where significant differences exists among pairs of attributes. Results of this analysis are presented in **Table 2**.

The results from testing all attributes indicates that only user feedback and sales service after the sale are not significantly different. The differences among all other attributes are significant. The overall importance of each attribute to buyer

TABLE 2
MULTIPLE COMPARISON RANGE TEST OF ATTRIBUTE IMPORTANCE FOR ALL PURCHASING RESPONSES

Attribute	Number of Times Preferred in Each Paired Comparison	Grouping[a]
Length of time	381	A
Vendor Reputation	866	B
User Feedback	1781	C
Sales Service	1814	C
Price	2148	D
Flexibility	2525	E
Reliability	2726	F
Quality	3131	G

[a]Attributes with the same letter grouping are not significantly different.

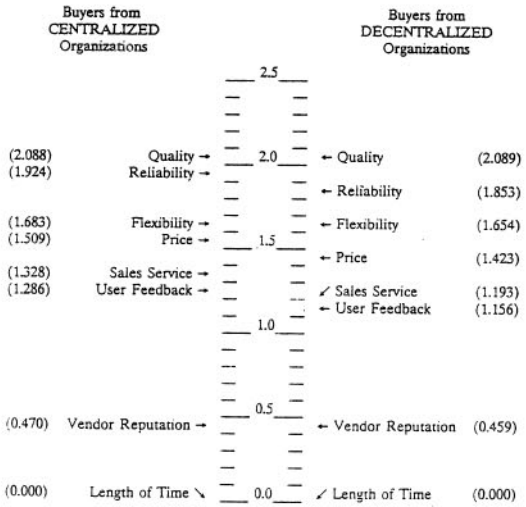
satisfaction then, in descending order is (**Figure 1**):

1. product quality
2. delivery reliability
3. flexibility in adjusting to buyer's needs
4. acceptable price
5. tied-sales service and user feedback
6. vendor reputation
7. length of time the supplier has been a supplier

Hypothesis 2

To test the second hypothesis, the responses were split into two groups of centralized and decentralized organizations. Buyers located with in-plant users were considered to represent decentralized organizations, while buyers not located with users of the products were considered centralized. **Figure 2** presents the results for purchasing agents in centralized and decentralized organizations.

FIGURE 2
INTERVAL SCALE VALUES DERIVED FROM THE LAW OF COMPARATIVE JUDGMENT FOR PURCHASING RESPONDENTS FROM CENTRALIZED & DECENTRALIZED ORGANIZATIONS



T-tests support the second null hypotheses, that there are no differences in attribute contribution to satisfaction due to centralization or decentralization of organizations. Originally, it was anticipated that the importance of user evaluation by purchasing agents would be greater in the decentralized structure because of the opportunities for more frequent use-buyer contact. It was also anticipated that the centralized structure, because it provides fewer opportunities for user-buyer contact, would result in more emphasis on specific, measurable factors, such as price, in post-purchase evaluations of suppliers.

Management Implications

The findings suggest that some attributes are clearly more important than others in their contribution to industrial buyer satisfaction. The purchasing agents in this study report that product quality is significantly more important to satisfaction than all other satisfaction attributes. This finding implies that industrial marketers should focus on the quality issue and emphasize quality in relation to the total marketing mix offering.

Delivery reliability and flexibility in adjusting to the buyer's needs were both considered significantly more important to satisfaction than price. Hence, a vendor's investment in inventory may also provide a means of differentiation and competitive advantage. Larger inventories (in contrast to just-in-time inventories) offer manufacturer's and distributors the ability to be more flexible in meeting buyer's needs. However, a cost/benefit analysis would be necessary as larger inventories are associated wit with higher costs. Cost-benefit analysis and value analysis can determine the worth of capital investments and inventory investments.

Industrial buyer satisfaction attributes in this study were specific to one setting. Individual firm's should identify relevant attributes that contribute to their customer's satisfaction. These attributes may be identified through several means such as focus group interviews, in-depth interviews with individual customers, open-ended surveys, and literature reviews.

Lambert, Marmorstein and Sharma (1990) contend that firm salespeople provide another means to gather important information. In many cases the salesperson is the selling company in the customer's mind. As a boundary role person, the salesperson is in a position to collect relevant information concerning customer satisfaction. Behrman and Perreault (1984) have found that sales- people are very accurate in understanding the importance weights that customers associate with different attributes, although salespeople are somewhat inaccurate as to performance levels desired by customers.

Summary and Conclusions

Research has indicated that the purchasing agent's satisfaction will affect decisions about the selection of vendors which are included in the supplier selection process. Consequently, differences in the degree of importance to industrial buyer satisfaction of various attributes were examined in this study.

Significant differences were found among various attributes. Consequently, industrial marketers have the opportunity to create competitive advantages by focusing on more important buying attributes that contribute to a particular purchasing agent's satisfaction. Marketing efforts may be directed more systematically toward achieving maximum buyer satisfaction and, thereby, providing an enhancing competitive position.

Findings of this study also support the notion that the post-purchase evaluation process for standardized products can be modeled. Attribute contribution to industrial buyer satisfaction is stable and consistent, at least in terms of the degree of centralization.

In addition, this study provides an example of a paired comparison methodology which can be utilized by both academic and practitioner research. Although somewhat limited to a small number of attributes, this methodology has a solid theoretical foundation.

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TOWARD AN ATTRIBUTION MODEL OF BRAND LOYALTY

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Abstract

A model of brand loyalty is proposed in this paper based mostly on Kelley's attribution theory, specifically, Kelley's covariation principle. The central theme of the model is that brand loyalty is an attribution consumers make based on the observation of their own repeat purchase. It is postulated that the underlying psychological mediating process is an attribution process involving distinctiveness, consistency, and consensus. A set of predictors of the mediating conditions were suggested. Furthermore, a set of moderators were hypothesized concerning the various relationships among the main constructs of the model. The marketing implications of the model are also discussed.

Introduction

Hoyer (1984) suggests that although broad generalizations can be made regarding choice processes, our ability to predict and understand this behavior is still at a less than desirable level. Hogarth (1981) points out that, one of the shortcomings of consumer decision research is that much of the research on consumer decision making has emphasized cognitive processing that occurs immediately prior to the act of purchase. Yet many decisions are made repeatedly over time and thus involve continuous - as opposed to discrete - processing. One such phenomenon that involves such type of decision making over time is brand loyalty. Much of the research on brand loyalty prior to 1970 focused primarily on the overt behavior aspect of consumers. The then current definitions of brand loyalty were unidimensional (e.g., based only on sequences of purchases). Jacoby (1970, 1971) suggests that brand loyalty is a two-dimensional construct, it consists of both behavior and attitudinal components.

Jacoby (1971) has defined brand loyalty as a set of six necessary and sufficient conditions. They are: (1) Brand loyalty is biased response (i.e., nonrandom), (2) It is a behavioral response (i.e., purchase), (3) It is expressed over time, (4) It is made by some decision making unit, (5) It is made with respect to one or more alternative brands out of a set of such brands, and (6) It is is a function of psychological processes (emphasis added).

The underlying rationale of Jacoby's definition of brand loyalty is that repeat purchase (the behavior component of loyalty) is determined by a positive psychological disposition towards the brand (the attitudinal component of loyalty). We argue in this paper that the reverse influence is equally plausible. That is, it is very likely that consumers make attributions about their psychological commitment toward a brand from observing their own repeat purchase behaviors. In other words, we argue that psychological commitment may not be the only factor that determines repeat purchase; instead repeat purchase may also be an additional factor in the formation and change of the attitudinal component of brand loyalty. Self-perception theory (Bem 1972) explains this phenomenon. Bem proposed that individuals come to know their attitudes and beliefs about objects/persons/events through the simple observation of their past behaviors. Individuals analyze their own behavior about the object of evaluation to figure out how they feel about that object. Translating self-perception theory in a consumer setting, it can be stated that in the absence of any external cues (such as deals), a consumer is more likely to attribute his/her repeat purchase of a particular brand to a preference for the purchased brand (i.e. an internal cause). Thus, as suggested by Dodson et al. (1978), this inferred positive attitude will direct future behavior, increasing the probability of repurchase.

Self-perception theory states that people arrive at attributions for their own behavior similar to the way an observer would; they observe their behavior and the external constraints on it and then form inferences. In other words, consumers make attributions about their own attitude, psychological commitment, or loyalty toward a specific brand by observing their own repeat purchase behavior. If they notice that they purchase a specific brand repeatedly, they may explain their own behavior by thinking that they must prefer that brand over other brands.

Although self-perception theory provides us with the central tenet of the proposed model, it stops short of providing us with the exact mechanics of attitude formation based on observation. The focus of our paper is to go a step beyond the self-perception postulate. Our model employs Kelley's (1973) covariation principle to allow us to further explain the cognitive dynamics underlying attributions of brand loyalty from repeat purchase behavior.

The purpose of this paper is to make an attempt to develop an attribution model of brand loyalty. The central tenet of the proposed model is that the attitudinal component of brand loyalty is inferred or ascribed from repeat purchase through a psychological process involving covariation.

Kelley (1967) proposed that individuals act as naive scientists when making judgments about cause-and-effect relationships with an analysis of the available relevant information. Kelley has theoretically argued and empirically demonstrated that perceived cause (e.g., brand attitude) for a behavioral event (e.g., repeat purchase) may be the factor with which the behavior covaries. Accordingly, four tests or factors may be posed to judge an hypothesis regarding how much an entity (e.g., brand attitude) caused an individual's behavior. These four factors are: a)

Distinctiveness, b) Consistency over time, c) Consistency over modality, and d) Consensus.

Their effects are hypothesized by Kelley as follows:

a) Distinctiveness. Distinctiveness decreases with an increase in the number of the other stimuli that elicit the same behavior. The behavior is attributed to the stimulus if it occurs only when the stimulus is present and not in its absence (maximum distinctiveness).

b) Consistency over time. Consistency increases with the number of occasions on which the stimulus elicits the same behavior. It is maximized if each time the stimulus is present, the reaction of the individual whose behavior is being analyzed is the same or nearly so.

c) Consistency over modality. Consistency increases with the number of situations in which the stimulus elicits the same behavior. A person's behavior is most consistent if his/her reaction is consistent even though the mode of interaction with the stimulus varies.

d) Consensus. Consensus increases with the number of other persons displaying the same behavior toward the same stimulus. For high consensus, the stimulus must cause similar behavior by other actors.

Different patterns of behavior or information will lead to different causal attributions in determining the causes of the observed response. When all three dimensions are high, the observed response (behavior) is attributed to the entity (e.g., brand).

Thus in our proposed model we posit that a brand loyalty attribution occurs when people attribute the cause of a repurchase of a brand to their loyalty to it. This attribution of loyalty is influenced by distinctiveness, consistency, and consensus information.

The Proposed Model

In this section we will mainly develop a model of brand loyalty based on Kelley's covariation principle. We posit that the three factors identified by Kelley can be useful in explaining the attitudinal component of brand loyalty. They are referred to in the proposed model as mediating variables that directly influence the attitudinal component.

Brand Loyalty Attribution

Kelley's attribution theory proposes that when the person scores high on distinctiveness, consistency and consensus the attribution is made toward the stimulus. Reinterpreting his principle in the present context, when the consumer perceives his/her repeat purchase to be distinct (restricted to a specific brand) and when s/he perceives this behavior is consistent over time and/or different shopping situations, and when s/he perceives others to engage in similar repeat purchases then the consumer is expected to make causal attribution of brand loyalty to explain this behavior.

Proposition 1: The higher the perceived distinctiveness, perceived consensus, and perceived consistency of the brand that is purchased repeatedly, the greater the likelihood of a brand loyalty attribution.

The Moderator Effects of Brand Loyalty Attribution

Brand Involvement. As pointed out by Zaichkowsky (1985), researchers view consumer behavior to be influenced by product involvement. Overall, involvement may be viewed as a state of energy (arousal) that a person experiences in regard to a consumption-related activity. A person who is highly involved is likely to be thinking more or feeling more strongly about the consumption experience in question. Low involvement, on the other hand, occurs when consumers invest less energy into their thoughts or feelings about particular consumption-related experience. It has been suggested that low-involvement situations change the order of the hierarchy's stages from a "think-feel-do" order into a "do-think-feel" (Hoyer 1984). In the present context, this would mean that consumers buy a specific brand more often than other brands for unknown reasons (unknown to themselves). This is a reflection of the "do" component. After the fact, they try to figure out the reasons behind their purchase. This is the "think" component. Their thinking leads to inferences about their "feelings" about the brand in question, i.e., the "feel" component.

Deshpande et al. (1982) have proposed a view which describes consumer decision making in situations that involve repeat purchases over time and that can be typically considered as low in importance or involvement. It assumes that the major goal in repetitive and relatively unimportant decisions is not to make an "optimal" choice but, rather, to make a satisfactory choice while minimizing cognitive effort. Hoyer (1984) postulates that consumers employ very simple choice heuristics or tactics when making repeat decisions which are relatively low in importance or involvement. In the process of tactic development, initial choices may be either haphazard, or constructed. Over time, however, consumers refine their tactics until a satisfactory decision can be made with very little effort. Hoyer (1984, p. 823) argues that brand loyalty usually occurs under low involvement conditions.

We extend on Hoyer's (1984) argument by providing an explanation of this simple heuristic using Kelley's covariation principle. Under low-involvement situations, consumers will learn over a period of time from their repeat purchases. Reflecting upon their past repeat purchases and recognizing this behavior to be distinct, consistent and consensus forming, consumers engage in an attributional process wherein this repeat behavior will be attributed to brand loyalty.

Proposition 2: The lower involvement the brand is the greater the likelihood that consumers will attribute their repeat purchases to brand loyalty.

Brand Success/Failure. It may be argued that brand success/failure may moderate the extent to which a consumer may ascribe his/her repeat purchase to brand loyalty. Product brands perceived to be successful (satisfying the customer following purchase and consumption) and purchased repeatedly are more likely to be attributed to brand loyalty than failure brands that are also repeatedly purchased. This may be because consumers are motivated to make brand loyalty attributions under brand success conditions (to enhance self-esteem), and to make non-brand attributions under brand failure conditions (to protect self). This attribution motivational tendency is referred to as the "self-serving bias" in the social psychology literature (e.g., Tetlock and Levi 1982).

In the applied psychology literature, Folkes and Kotsos (1986) conducted a study which revealed that consumers display a pattern of self-serving biases in making attributions for brand failure. Also, Bettman and Weitz (1983) found that employees show a pattern of self-serving attributions in their letters to shareholders in annual reports.

Proposition 3: Brand success/failure moderates the relationship between covariation of the repeat purchase of that brand and brand loyalty attribution. More specifically, the relationship is enhanced under brand success than brand failure conditions.

Other Attributions. The extent of credibility placed on the brand loyalty attribution may be an inverse function of other attributions. That is, consumers may have less confidence in their brand loyalty explanation if they have other explanations for their repeat purchase of the brand in question.

The moderating effect of other attributions on the relationship between the covariation of repeat purchase of a specific brand and brand loyalty attribution can be explained by the discounting principle, also developed and popularized by Kelley (1973). The discounting principle states that people are likely to discount or minimize the effect of an attribution for an action when an alternative attribution could account for the behavior. Sparkman (1982) showed the effects of the discounting principle in a study involving celebrity endorsement. More specifically, when Frank Sinatra's endorsement of Chrysler autos was identified as being compensated at the rate of $1.00 per year, consumers evaluated Chrysler more positively than when no rate pay was specified.

Proposition 4: Other attributions moderate the relationship between covariation of repeat purchase of a specific brand and brand loyalty attribution. More specifically, the relationship is diminished under conditions of other attributions than under conditions of no other attributions.

Brand Loyalty Self-Concept. Brand loyalty self-concept refers to an image consumers have of themselves as generally loyal to specific brands. A person may think of himself/herself as the kind of person who when s/he feels comfortable with a brand, s/he sticks with it, i.e., become loyal to it. Hence, some people may be loyal to product brands in general, while others may perceive themselves as disloyal, or variety seekers (brand switchers). This personality trait can be argued to moderate the covariation of repeat purchase of a specific brand and brand loyalty attribution. That is, consumers who perceive themselves as generally brand loyal may be more likely to make a brand loyalty attribution than those who perceive themselves as generally variety seekers. In other words, brand loyalty self-concept is argued to enhance the relationship between covariation and brand loyalty attribution.

In the consumer behavior literature, several studies have demonstrated the effects of self-labelling. Labelling oneself as a certain type of person usually leads consumers to behave consistently with that label. For example, Reingen and Bearden (1983) conducted a study examining agreement to participate in a market research survey. Respondents to a telephone survey who were told that "you are a very helpful person and I wish more of the people we call were as helpful as you are" were more likely to agree to participate in a subsequent mail survey than those not so labelled.

Proposition 5: Brand loyal self-concept moderates the relationship between covariation of repeat purchase of a specific brand and brand loyalty attribution. More specifically, the relationship is enhanced under conditions when consumers have a brand loyal self-concept than when they have a variety seeking self-concept.

Volitional Control. Volitional control refers to the extent to which consumers feel that they have purchased a specific brand repeatedly over time when they had a free choice to have selected other brands. In other words, they purchased a specific brand under volitional control. Given a perception of volitional control (i.e., they were not forced to buy that brand because they did not have a choice in the matter), consumers are likely to make a brand loyalty attribution than given lack of volitional control.

The concept of volitional control is popular in the attribution literature (Weiner 1985). For example, in the consumer behavior area, Rethans and Albaum (1980) conducted a study which revealed that risks people voluntarily assume (e.g., snow skiing) are perceived as more acceptable than those perceived as imposed by firms.

Proposition 6: Volitional control moderates the relationship between covariation of repeat purchase of a specific brand and brand loyalty attribution. More specifically, the relationship is enhanced under conditions of high volitional control than under conditions of low volitional control.

Predictors of Distinctiveness

Distinctiveness refers to the fact that the consumer notices that s/he buys a specific brand and not others. In other words, s/he scans one's memory and notices that s/he has repeatedly pur-

chased a specific brand more often than others. As previously argued, the greater the distinctiveness the greater the likelihood that the consumer will attribute this distinctive behavior to a positive attitude toward the brand. This is because one's psychological commitment or preference toward that brand is a likely explanation that the consumer attributes to his/her repeat purchase of that brand.

Brand Meaningfulness. Ratneshwar et al. (1987), in their study on attraction effect, suggested that stimulus meaningfulness (recognition of different attributes of competing brands) act as moderators of the attraction effect. The attraction effect refers to an inferior product's ability to increase the attractiveness of another alternative, when the inferior product is added to the original choice set. This has a direct implication in explaining the attribution effect of brand loyalty. In the proposed model, distinctiveness is viewed as a mediating variable in influencing brand loyalty. Meaningfulness, as defined by Ratneshwar et al., can be viewed as an antecedent factor affecting distinctiveness. That is, the greater the meaningfulness of a particular brand relative to alternative brands, the greater the likelihood that this brand is made distinctive through repeat purchase of that brand, which in turn enhances the likelihood of loyalty to the brand.

Proposition 7: The greater the meaningfulness of the frequently purchased brand the greater the likelihood that the brand is perceived to be distinct from the other brands in the original choice set.

Moderators of Distinctiveness

Number of Brands in the Choice Set. It can be argued that the effect of meaningfulness would be enhanced when moderated by number of brands available in the choice. This is in line with the suggestions made by Ratneshwar et al. (1987). When the number of brands available in the choice set increases the consumer is able to perceive his/her purchased brand to be distinct from the other brands available. In other words, the more brands there are in the choice set consumers are more likely to perceive their repeatedly purchased brand to be distinct from the other brands. This may occur because consumers may feel that they had the freedom to choose from a variety of brands, but they end up selecting that brand. Hence, a likely explanation for this behavior is that they are loyal to that brand.

Proposition 8: The greater the number of brands in the choice set the greater the likelihood that the frequently chosen brand is perceived to be distinct from the other brands in the original choice set.

Incomplete Information. A similar argument can be made about the moderating effect of incomplete information. In the context of the attribution model developed here, one can argue that incomplete information moderates the meaningfulness of a brand on perceived distinctiveness. More specifically, when consumers do not have adequate information about all the brands that are in their choice set, they are more likely to perceive the brand that they have been repeatedly purchasing to be distinctive. In other words, it is their lack of complete information about the remaining brands in their evoked choice set that makes them perceive a specific brand (which they have been buying repeatedly) to be distinctive. They are, thus, more likely to attribute their behavior to brand loyalty.

Proposition 9: Incomplete information moderates the relationship between meaningfulness and perceived distinctiveness. More specifically, the relationship is enhanced under conditions of incomplete information than complete information.

Predictors of Consistency

Consistency in Kelley's model refers to consistency over time and consistency over modality. Consistency over time refers to the notion that the greater the consistency of the observed behavior (over time and/or over different situations) the greater the credibility of the causal attribution. In the case of brand loyalty and repeat purchase behavior, we previously argued that when a consumer notices that s/he has purchased a specific brand and also notices that s/he had purchased that brand consistently over time and/or from different stores (or for different occasions), s/he may come to feel more confident in his/her explanation of this behavior, the explanation being that s/he is loyal to that brand.

Frequency Knowledge Alba and Marmorstein (1987) examined the impact of mere number of positive and negative attributes associated with a brand or by the mere number of dimensions on which one brand outperforms another. They demonstrated that frequency knowledge (the mere number of times an event or category of events) can influence judgment and choice, particularly when other types of information have been poorly encoded, poorly remembered or poorly understood. In the event of the consumer's inability to decide upon one brand out of the many equally liked brand, the mere number of times a particular brand was purchased in the past can have a strong impact on repurchase of that brand.

Frequency knowledge could thus be viewed as directly influenced by repeat purchase behavior, which in turn, directly impacts the consistency factor in causal attribution. The number of times the event occurs (repeat purchase of the same brand) can be argued to have a direct effect on consistency, which in turn influences the subject's attribution of brand loyalty. Thus we put forth the following proposition.

Proposition 10: The greater the frequency knowledge of repeat purchase of a specific brand the greater the perceived consistency of the observed repeat purchase.

Moderators of Consistency

Role Specialization. It has been generally accepted in consumer behavior literature that an individual's behavior is significantly influenced by the role enacted by (assigned to) the individual. Role may be defined as a set of pre-

scriptions that define the desired behavior of an actor. In the buying process, consumers may take on any of the following roles: Stimulator, Influential, Expert, Decision Maker, Buyer, Consumer, Caretaker. In the context of the attribution model proposed here, it can be argued that specialization in the consumer role moderates the relationship between frequency knowledge and consistency. An individual who is assigned the consumer (consumption) role and perceives himself/herself to be in a role enactment situation will be more likely to fulfill the expectations of that role. In the proposed model this would mean that consumer role specialization would enhance the effect of frequency knowledge (number of times a particular brand was purchased in the past) on perceived consistency. Support for role specialization effects on buying process is found in the family/household literature (see Woodside and Motes 1979; Qualls 1987; Foster and Olshavsky 1989).

Proposition 11: Consumer role specialization moderates the relationship between frequency knowledge and perceived consistency. More specifically, the relationship is enhanced under conditions of consumer role specialization than nonspecialization.

Predictors of Consensus

Consensus in Kelley's model refers to the extent that the observer believes that his/her observation of a distinct event is shared by other people, that other people observed the same distinct event. Hence, the greater the consensus the greater the credibility the individual feels about the causal attribution. In the language of brand loyalty and repeat purchase behavior, we previously argued that when a consumer notices that s/he has repeatedly purchased a specific brand and also notices that other people around him/her have also bought that specific brand, s/he may attribute that the repeat purchase may be due to his/her loyalty to the brand. S/he also may come to feel more confident in his/her explanation of this behavior, the explanation being that s/he is loyal to that brand.

Reference Group Influence. Bearden and Etzel (1982) observed the fact that consumers purchase products and brands in accordance with the norms of the reference groups in which they belong. A reference group is a person or group of people that significantly influences a person's attitudes, values, behavior and opinions. The more cohesive the reference group, the more effective its communication process, and the higher the person esteems it, the more influential it will be in shaping the person's product and brand choices. Marketers have generally accepted the reference group effect as important in consumer decision making.

Proposition 12: The greater the reference group influence on a repeatedly purchased brand the greater the likelihood of perceived consensus of the observed repeat purchase.

Moderators of Consensus

Strength of Reference Group Identification. Engel, Kollat and Blackwell (1968) suggested that reference group influence may have a direct bearing on brand loyalty. Reingen et al. (1984) conducted a study which revealed that brand congruence is a direct function of social network. That is, the greater the tie of a member to a group the greater the likelihood that s/he purchases and uses products and brands that are akin to other members of the same group. Extending these ideas to the proposed attribution model of brand loyalty, one can argue that consensus may be directly affected by reference group influence, which in turn is affected by the consumer membership of certain groups.

Proposition 13: The strength of reference group identification moderates the relationship between reference group influence and perceived consensus. More specifically, the relationship is enhanced under conditions of strong group identification than weak group identification.

Vested Interest. One can argue that consumers are likely to overestimate the consensus effect arising from reference group identification as a direct function of their vested interest in the product brands they have repeatedly purchased. The greater their vested interest in the purchased brand, the greater the likelihood of perceived consensus. Support of this notion come from studies on the "false consensus effect" in the attribution literature (Gilovich, Jennings and Jennings 1983; Sherman et al. 1983; Van der Pligt 1984). For example, Crano (1983) conducted a study in which undergraduates estimated their peers' attitudes toward a possible tuition surcharge. Most students indicated that they believe that others shared their belief. Furthermore, the study revealed that the greater the vested interest in the tuition surcharge the more extreme were the estimates of agreement.

Proposition 14: Vested interest moderates the relationship between reference group influence and perceived consensus. More specifically, the relationship is enhanced under conditions of high vested interest than low vested interest.

Public versus Private Goods. It is well known that products consumed in public are more conspicuous, whereas products consumed in private are less so. In other words, products consumed in public are more visible than those consumed in private. Those product brands that are easily visible to others are labelled as public goods and those product brands that are not so easily visible are labelled as private goods. Since public goods are easily visible to a consumer, it can be argued from the proposed attribution model that these goods enhance the relation between reference group influence and the likelihood of perceived consensus. Similarly, it may be argued that, since private goods are not easily visible to the consumer, these goods reduce the effect of reference group in the formation of consensus effect (Bearden and Etzel 1982).

Proposition 15: Public versus private goods moderates the relationship between reference group influence and perceived consensus. More specifically, the public goods condition enhances the relationship between reference group influence and perceived consensus than the private goods condition.

REFERENCES: Furnished upon request.

TOWARDS FURTHERING THE EXPLANATION OF RELATIVE INFLUENCE IN HUSBAND-WIFE DECISION MAKING: A QUALITATIVE APPROACH

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ABSTRACT

This paper begins the attempt of broadening the theoretical base of husband/wife relative influence in decision making by utilizing a research method which facilitates the achievement of a balance between theory-free and theory-laden research. Specifically, a qualitative approach was used to help uncover additional explanations for relative influence in husband/wife decision making. The content analysis of 60 in-depth interviews provided general support for the existing theories and revealed eleven additional possible explanations for this phenomenon.

INTRODUCTION

Though the importance of husband/wife decision making is well acknowledged, past research in this area has been relatively limited. The related literature indicates that researchers have generally attempted to understand which spouse influences the other in terms of family or household purchases. This thrust has led consumer behavior scholars to focus on power relations and conflict in family decision making situations. Consequently, the theoretical base of relative influence in family decision making appears to be narrow and incomplete. Even though the previously-used research approach yields results which offer a rich understanding of husband/wife decision processes, the scope of this research can be broadened.

This paper advances the notion that our understanding of husband/wife decision making can be enhanced by examining the process by using a research technique which has not been commonly used in the past related studies. In the attempt of broadening the theory of husband/wife decision making, the current work recognizes the opposing views regarding "theory-laden" research. On one hand, many anthropologists and qualitative researchers espouse an inductive research posture which insists that research questions framed during initial work are generally misleading; meaningful questions must be formed after considerable research is complete (Everhart 1976). Indeed, objectivity in science has been deemed impossible because theories and paradigms precede and determine facts and observations (Hudson and Ozanne 1988, Kuhn 1962).

On the other hand, from a phenomenological perspective, research, by definition, is guided by research questions either implicit or explicit. The logical empiricists believe that the observer must know for what to look and must have a conceptual scheme into which to try to fit the data (Hunt 1990, Nagel 1961).

The purpose of this paper is to work towards broadening the theoretical base of husband/wife influence in decision making by utilizing a research method which facilitates the achievement of a balance between being overly restrictive (theory-laden) and overly permissive (theory-free). Before the details of the study design are presented, a brief description of past research and current theoretical orientations will be given. (Please note that due to a page limitation constraint, the introduction has been abbreviated; contact the author for the complete version.)

Previous Family Research

The family decision-making literature has focused mainly on who is influential (Foxman et al. 1989) and who makes the decisions about purchases within families (Brinberg and Schwenk 1985, Imperia et al. 1985). In general, a key assumption made in previous studies of the family decision process has been that each family member has different motives, and these unilateral motives lead to conflict and negotiations in a joint decision process (Moore and Wilkie 1988). These ideas have led family decision researchers to focus on conflict situations (Park et al. 1991). On the other hand, the literature in disciplines other than marketing suggest that there may be other explanatory factors which deserve attention, such as: personality (Wachowiak and Bragg 1980, Sprecher 1986) and various background factors (Acock and Yang 1986).

Other research in the marketing field has used individual factors to predict and show differences between groups of decision maker/influencers. The determinants that previous research have investigated are mainly demographic and socioeconomic factors, such as, income (Davis 1976), age (Green and Cunningham 1975), job status (Woodside 1975), and education (Munsinger et al. 1975, Woodside 1975) and sex-role attitudes. For example, research on the incidence of, traditional and modern sex-role attitudes suggests that modern attitudes are more likely to be found among respondents who are more highly educated and higher in social status (Filiatrault and Ritchie 1980). In other words, egalitarianism (an example of a "modern" attitude) is more likely to be found among those with a relatively high education, income, job position, and those who wait longer to have children (Hazuda et al. 1988).

These past studies have provided information about the decision outcomes and the spouse who has more influence in these decisions. These studies, however, do little to address reasons or explanations for relative influence. To advance our knowledge of family decisions, we need to address the factors which influence the decision-making process more broadly.

Current Theoretical Orientations

Past research has provided three major theoretical orientations which dominate the explanation of marital power in husband-wife dyads: ideology, resource, and involvement theories. The ideology theory emphasizes social norms and cultural determinants of who should have power. The theorists advanced that the culture with which an individual identifies will largely dictate who has power in the relationship (Rodman 1972). The ideology theory encompasses a factor which affects the amount of influence, that is, the sex role orientation of the spouses. The resource theory focuses on personal attribbutes or possessions. A variation of this theory is called the "least interested partner" hypothesis, which states that the greater the value of one partner relative to the other as valued by society, the greater influence that partner will have (Engel et al. 1990). A third factor affecting the amount of influence is involvement (Mowen 1990).

Though the current theories are well advanced, plausible, and will not be ignored in the current study, the sociological and psychological literature suggests, as previously mentioned, that there may be other explanations of relative influence in husband/wife decision making. Thus, an attempt is made to uncover additional explanations for relative influence in husband/wife decision making. Following is the

methodology employed in this endeavor.

METHOD

This paper reports the results of in-depth interviews with 30 couples; in all cases the spouses were interviewed separately during the same visit. The interviews were unstructured, generally non-directive, and guided by the informant style and the unique informant/interviewer interaction. This method was considered most appropriate for the objectives of this research since it evokes richly textured descriptions of decision-making experiences which otherwise might be dismissed or overlooked. Each interview was tape-recorded and required from one to two hours to complete. The transcriptions of those tapes, resulting in a collection of over 300 pages, supplemented with field notes prepared by the interviewers, comprised the data base that was used in this study. Transcripts and notes were analyzed to isolate examples of reasons given for relative influence.

The use of one spouse or both as respondents have been discussed extensively in the literature. Although each approach has its strengths and weaknesses, substantial evidence exists to support the necessity of acquiring responses from both parties in order to predict or explain purchasing behavior (Davis 1976, Ferber 1973, Hempel 1974). In this study, therefore, both husband and wife were asked to participate. However, to alleviate the likelihood of one spouse influencing the other's responses, each was interviewed separately. Interestingly, the responses from each husband/wife team were remarkably similar.

As previously mentioned, an attempted was made to balance the two concerns of "theory-free" and "theory-laden" questioning. Therefore, the interviewers were thoroughly informed of the possible explanations (e.g., religious background, self-esteem, etc.) of relative influence in husband/wife decision making that they might use to begin or stimulate discussions, but they were also instructed to give the respondent complete freedom to express his or her feelings and opinions. Thus, the interviews were kept as loosely structured as possible, allowing informants to broach topics in their own ways and at their own paces. Under these conditions rapport developed quickly, evidenced by the frankness with which informants divulged intimate details of their relationships and experiences. As themes emerged and rapport increased, it became possible to use more probing questions to test and explore themes across informants (Schouten 1991). The literature also offered a number of valuable insights and emphasized the importance of purposively sampling for diversity in variables such as family composition, length of marriage, and socioeconomic status.

Content analysis was used to extract the plausible explanations for relative influence in decision making. Content analysis is an excellent method to generate a "thick description" (Geertz 1973) and "thick interpretation" (Denzin 1989) because it explores the phenomenology of verbatim self-reports. This method prioritizes discovery over confirmation (Lincoln and Guba 1985) and is consistent with the call for more naturalistic, experiential approaches to consumer behavior research (e.g., Belk 1984, Thompson et al. 1989).

The validity and reliability of each piece of information was assessed by examining its fit into the total body of data.* That is, as new data were collected, they were analyzed in the context of previously gathered data and examined for points of similarity and contrast. The constant comparison of new data to old occurred informally during interviews and more formally and exhaustively between interviews. As themes emerged, they were used to guide but not necessarily restrict the foci of future interviews.

Analysis was an iterative process of coding, categorizing, and abstracting the data (McCracken 1988). Data of apparent thematic similarity were identified throughout the field notes, highlighted, and coded with key words or phrases. Coded data were compared and contrasted to yield a few broad categories which, through further sorting and clustering, were reduced to the more basic patterns that constitute the principal emergent themes.

Interpretations of the key analyst were periodically submitted to colleagues of differing backgrounds (Wallendorf and Belk 1989) who challenged the interpretations or proposed alternatives, exposing the analyst's personal biases and leading to further scrutiny of the data and literature. Selected conclusions were also submitted to the informants for their responses. There was general assent to the plausibility of the interpretations. Complete agreement was deemed less important than dialogue and a thorough reexamination of questioned conclusions (Schouten 1991).

To achieve the greatest validity and reliability, the interviewers ranked the informants on attributes which have been shown to be possessed by "good" informants: (1) comfortable and unstrained in the interactions, (2) not hurried and willing to spend time with the researchers, (3) generally open and truthful, (4) providing solid answers with good detail, (5) stay on the topic or related important issues, and (6) thoughtful and willing to reflect on what they say (Dobbert 1982). If a spouse did not meet these criteria, the data from that particular couple was eliminated. Ten couples were eliminated from the data set.

RESULTS

Data analysis provided general support for the existing theoretical orientations and yielded a number of possible explanations for relative influence in husband/wife decision making. Using the ethnographic data categorization process suggested by Dobbert (1982), three prominent themes or explanations emerged in the analysis and will be discussed in this paper: "Background Factors," "Personality," and "Couple-Related Factors." Excerpts from cases of twelve informants are presented to illustrate these themes.

Background Factors

The analysis revealed that several factors related to the each spouse's background or past environment had an impact on relative influence in husband/wife decision making. Specifically, three background factors were implicitly or explicitly mentioned by many informants: the

*The natural history method was followed in that an attempt was made to fit the data into the conceptual scheme on which the study was based point, the original concepts were checked to see if they were still adequate. Next, the concepts, assumptions were changed to accommodate the facts. Analysis was not relegated to the end of the project, but formed an integral part of an ongoing project.

power structure (matriarchal or patriarchal) of the household in which they were raised, the amount of time spent alone before marriage, and the extent to which they "got their way" as a child. Following are selected field notes.

> Husband (Husb)1: My mom would be the one was the prime decider. She was the one who made most of the decisions--about almost everything. My dad would sit back and let her take control. Now and then he would complain that he didn't have enough money to do what she wanted.
>
> Husb2: I lived alone for ten years before marriage. I did not rely on anyone for anything. My money was definitely mine, and I spent it as I wished. I got very used to making all my purchase decisions, and had difficulty after marriage because I was so accustomed to doing exactly as I wanted. I wanted and needed, I think, to maintain control.
>
> Wife (W)1: After I married Scott, I realized just how spoiled he was as a child. He was the youngest of four children, and admitted (as everyone else did) that he was spoiled and consistently got his way. It has made him very competitive in our decision making. He persists until his decision is the one we go with. When I persist, he sulks.

Husb1's mother had been the definite leader of their household. He remembered his mother as being very decisive, strong-willed, and stable. He remembered his father appearing to have no problem with the matriarchal power structure of the household. Husb1 thought that the household in which he was raised was a happy one and was consequently satisfied with his wife having more influence in decision making in their own home. This finding is consistent with past research regarding the influence of parents' behavior on the child's behavior (Hendrick 1988). One related study found that the mother's role in decision making was especially influential for the sons (Powell and Steelman 1982). The second case depicts a situation where one spouse had spent considerable time alone before marriage. Husb2 was accustomed to his independence and making decisions about everything in his life. This pattern apparently carried over into the decision-making structure of his married life. Acock and Yang (1986) found that independence, even when acquired during childhood, has implications for interpersonal conflicts. Another possible explanatory variable is how one was treated as a child. Spouses who had been an only child or the eldest or youngest of their siblings appeared to have more influence. W1 married Scott (pseudonym) who was used to getting his own way as a child. She thought her husband had never gotten out of being used to having his own way. Hesitantly, Scott agreed with his wife's viewpoint.

Personality

Several personality-related variables were extracted from the field notes as possible explanations for relative influence in spousal decision making. Specifically, five themes kept emerging in the field notes: Type A/B personality, willingness to please, self esteem/confidence, locus of control orientation, and need for approval. Following are examples illustrating each theme:

> Husb3: I have more of a laid-back personality. I don't tend to worry about things or get in a hurry. My wife is just the opposite; she is aggressive and gets really upset when things don't go the way she wants.
>
> W2: My husband makes most of the purchase decisions--at least he decides most things. Although I have wanted to have may way many times, I give in because I want to please him...it seems like this has been a behavioral pattern of mine. For as long as I can remember, I have always wanted to please others; therefore, I usually accept what others, especially significant others, decide.
>
> W3: Actually, I get my way most of the time. My husband may not admit it because of his ego, but things tend to go my way. I am very confident in myself and the things I do; I think about them first and then press ahead. My husband is a little more wishy-washy. I think I am the better decision maker.
>
> W4: (a) I like to make decisions because I think you get out of life what you make of it and how hard you try.
> Husb4: (b) I like to take hold of things. Yes, I am the major decision maker because I have to take charge. My wife waits for things to just happen.
>
> W5: I tend to give in more because this really pleases him [my husband]. He really approves of what he calls an old-fashioned wife. I try to be that as much as possible, because then, he is very complimentary of me.

Husb3, typical of the Type B personality, was not overly concerned about having the lead in decision making. His wife, on the other hand, was hurried, aggressive, and constantly concerned about having everything operating efficiently and smoothly. She was the one concerned about finances and deciding what was the best decision regarding all purchases. In another case, W2 obviously considers pleasing others as being very important. Though she appears to be decisive and opinionated, her willingness to please others apparently overrides other motives. This personality trait tends to shift the decision-making power away from her. Although previous studies (e.g., Wachowiak and Bragg 1980) have found a relationship between willingness to please and marital satisfaction, none have explored the association between willingness to please and influence in decision making.

W3, who does take the lead in decision making, is very confident and sure of herself. Past experience has illustrated to her that she is a better decision maker than her husband. She perceives that she is very capable and efficient. This finding is consistent with Sprecher's (1986) study in which a relationship was found between positive feelings towards oneself and feelings of control. The importance of locus of control orientation was illustrated by W4 and Husb4 (representing two different couples). They both apparently think that to get things accomplished, one must assume responsibility. In other words, one cannot "sit around" and "wait for things to happen." Although no studies linking decision-making influence and locus of control could be found, Doherty (1981) found that wives with an external locus of control were more dissatisfied than their husbands. Finally, another personality-related variable that appears to be associated with husband/wife influence in decision making is the need for approval. W5 places significant importance on approval from her husband. Though she would like to be responsible for more decisions, she yields to him because he approves of an "old-fashioned wife;" that is, one who allows her husband to take the lead in decision making.

Couple-Related Factors

The content analysis resulted in the emergence

of three themes which appeared to provide explanation for influence in decision making. Each are related to the couple: age difference, decision-making power at work, and the confidence one has in one's spouse. Following are examples illustrating each theme:

W6: My husband is 21 years older than I am. Although I have been quite independent before marriage, have a very good paying job [career], I allow him to have more control because of my respect for him. I know I would feel differently if I were married to someone younger.

Husb5: At work I manage teams of programmers. I manage everything and make all the decisions. I find that this pattern of behavior carries over to all parts of my life. I simply want to be in control.

W7: Keith is a really good manager. He is good at deciding what is best for us. He is the best manager of money. I respect that, and I guess that is what makes me listen a lot to what he says. I'm just not as good at things as he is. I have confidence in what he does.

Wife6 is 21 years younger than her husband. Although she did experience independence before marriage and currently has a well-paying, meaningful career, the age difference apparently plays a large role in determining the power structure of the marriage. Husb5 has significant decision-making power at work. He finds it difficult, if not impossible, to change this mode when not in the office. He likes being in control, while working and when at home. Interestingly, Adelman (1987) found a relationship between decision-making power at work and self-esteem and happiness. Voydanoff (1988) found a relationship between perceived control over one's work situation and family conflict. However, the exact nature of the conflict was not specified. W7 obviously has a lot of confidence in her husband. She thinks he is a good financial manager and very good in deciding what is best for their household. Thus, she tends to relax and allows him to take the lead on most purchasing decisions. These findings, coupled with deTruek and Miller's (1986) finding that confidence in one's spouse influences the other spouse's behavior, lead to the thought that this may be a possible explanation of relative in decision making.

CONCLUSIONS AND SUGGESTIONS FOR FUTURE RESEARCH

To more fully understand the husband/wife decision making phenomenon, researchers need to focus more on the theory underlying the decision processes. Though a few theories which explain relative influence have been established, they are limited and based on insufficient research. In this research, therefore, a qualitative approach is used in the attempt to uncover additional possible explanations for relative influence in decision making.

The content analysis of 60 in-depth interviews supported the existing theories of resource, ideology, and involvement. However, the data analysis also revealed eleven additional possible explanations for relative influence in husband/wife decision making. The eleven variables were grouped into three categories: (1) background factors: power structure of household in which each spouse was raised, the length of time spent alone before marriage (or the extent of independence), and the extent to which one got his or her way as a child; (2) personality factors: Type A or B, willingness to please, self esteem or self confidence, locus of control orientation, and need for approval; and (3) couple-related factors: age difference, decision-making power at work, and confidence in spouse.

To determine whether these dimensions should be combined with the existing theories to broaden the domain of family decision research, future research should investigate whether there is a significant relationship between relative influence in husband/wife decision making and each of the eleven variables uncovered in this research. Fortunately, measures of many of these constructs have been established and validated (i.e., Marlowe and Crowne's Need for Approval Scale 1964 and the measure of Type A/B personality by Jenkins et al. 1971). Also, to explore how these dimensions fit within the existing 'power' paradigm in family research, researchers are encouraged to investigate interactions between effects of existing theories and these new dimensions in the decision process, instead of studying each in isolation.

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GLOBALIZATION OF CREDIT CARD USAGE: THE CASE OF A DEVELOPING ECONOMY

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Abstract

The attitudes of Turkish consumers toward credit card usage and the approach of card issuers to penetrate the market are investigated. The better educated, higher income, middle aged members of the upper-middle class seem to be the prime target. The usage and the administration of credit cards appear to be influenced by the infrastructure of the country.

Introduction

The two basic strategic alternatives to internationalization may be summarized as "import substitution" and "export promotion". In the former, public policy-makers encourage domestic and multinational firms to reduce imports and further encourage domestic firms to take over the sectors dominated by foreign corporations. Quite often this approach leads to protectionism, high tariffs and has failed to produce an internationally competitive industry. The latter approach encourages specialization in order to increase exports. Export promotion is usually ushered in with a reduction of tariffs and duties, relaxing of exchange rate controls and is often accompanied by a certain degree of technology transfer.

The Turkish economy started such a transition from import substitution to export promotion nearly a decade ago in 1982. The approach included attempts to upgrade the infrastructure of the country including financial services. Subsequently, credit cards have become visible in the local economy with the archrivals Visa and Mastercard competing for market share.

The purpose of this paper is to investigate the attitudes of Turkish consumers towards credit card usage. Within the framework of transition from a controlled economic environment to an export-oriented, free-market economy, Turkey provides the opportunity to examine the introduction and the acceptance process of credit cards. The study of credit cards in a developing country, such as Turkey, also helps to highlight and provide insights into the phenomenon of globalization. The methods used by credit card companies in penetrating the Turkish market can be examined to see if their approach has been global and the degree to which modifications have been necessitated.

In developed countries, credit cards and other plastic money have been touted as the sign of things to come and there have been predictions of a cashless society (Levy and Ingene 1983). Plastic money affords a tremendous range of conveniences based on the high-tech nature of the infrastructure in developed countries. It is now possible to charge groceries and buy gasoline from an automated pump even when there is no attendant. While credit cards have been around for decades in the developed countries, in many developing countries they have been introduced recently and could be classified as a *dynamically continuous* innovation (Robertson 1967). Use of the credit card requires the buyers to act in drastically new ways, change their way of thinking and modify their behaviour patterns radically in developing countries and the Turkish consumer is no exception. In an environment where cheque usage is rather limited, the credit card is both a prestigious novelty and a source of risk for the customer, the issuer and the accepting retailer.

Credit Cards in Turkey

The first credit card to appear on the Turkish scene was Diners Club which was introduced in 1969 followed by Eurocard in 1975. Both cards were accepted mainly at the better hotels and restaurants and a limited number of up-scale retail establishments. Mastercard and Visa have been introduced in the mid 80's on the coattails of the new economic liberalization and market economy policies initiated by the government. Turkish banks have made significant strides during the last decade to introduce high-technology into their operations, provide better and more varied services to their export-oriented commercial and retail customers who were hungry for new offerings. The influx of foreign banks during the same period certainly had a dramatic influence on the domestic banks and the proliferation of ATM's preceded the introduction of credit cards. The credit cards issued by the banks in Turkey are valid only for domestic purchases and cannot be used to charge overseas transactions. They can be paid in full within 30 days or in instalments where the **monthly** credit charge could vary from 6 to 10% as a function of the inflation rate (between 35 to 80% in the last 10 years). So far, 12 banks have issued approximately 500 thousand bank credit cards (population 57 million) which are accepted in around 150 thousand establishments. Most issuers charge a $20 application fee and an annual subscription fee ranging from $10 to $20. Like the US (Hawes 1987), Visa is the more popular card with Mastercard following it. Unlike North America where the consumer is liable for no more than $50, in case of theft or loss, the card holder

is responsible for all outstanding balances for up to two weeks after reporting the incident.

Methodology

The survey was developed and pre-tested using a sample of 40 subjects over the age of 18 which is the minimum age for obtaining a credit card. After making the necessary modifications, the final survey was administered to 200 card holders and 200 non-holders in a suburb of Istanbul. The survey was comprised of a battery of questions regarding attitudes towards credit cards, sources of information used and another section including demographic characteristics. While each quota was filled using convenience sampling techniques, the results are likely to provide a realistic indication of the concerns and the preferences of many consumers as the survey was conduct in a non-exclusive neighbourhood that has the regional headquarters of all 12 issuing banks. Respondents were classified as holders or non-holders based on whether they had a bank credit card. Cards issued by stores are not included in this study.

Attitudes of Users and Non-Holders

The most important reason for using a credit card mentioned by the users was "ease of payment" (64%) followed closely by "risk of carrying cash" (58%) suggesting very strongly that convenience outweighs the credit feature. This is contrary to the trend in the US where the outstanding card balance has been increasing steadily (Thornhill 1972) and credit cards have replaced in-store accounts as a way to get credit (Arora 1987). Other reasons for using credit cards were "the need for credit" (24%) and "prestige in shopping" with 15%. Non-holders stated that the primary reason (40%) for not having a credit card was due to "lack of information". The next two reasons for not having a card were "strict requirements to qualify" (21%) and "possibility of impulse buying" with 16%. Smaller numbers of respondents mentioned reasons such as "not economical" (9%), "not beneficial" (8%), and "not reliable" (7%). Clearly, there is a major opportunity to convert many customers by providing more information about the usage and benefits of credit cards.

The reasons that users provided for carrying credit cards were significant by occupation, marital status, and level of education. These findings are similar to what is reported in the literature (Kinsey 1981) where people with higher incomes, better education and married couples value convenience more than the credit feature. Apparently the value of time is critical in the developed countries with respect to convenience. However, in many LDC's convenience also includes the problem of carrying cash which is very bulky in an inflationary environment with banknotes of small denomination. The difficulties of paying by cheque also increase the convenience of credit cards for many people who are culturally inclined to make payments as discretely as possible in front of their guests.

Ease of payment was significant by age with the 29 to 39 olds considering it more important than the others. The middle age group seems to be the heaviest users and have been found in the literature (Mandell 1971, Kinsey 1981, Arora 1987) to be very affected by the credit card revolution.

In addition to the reasons for using credit cards, both users and non-holders were analyzed across demographic characteristics which have been found to be significant (Adcock et al. 1977, Goldstucker and Hirschman 1977, Wise et al. 1977, Arora 1987). An analysis of users revealed that men have felt that lack of knowledge and the difficulty of qualifying were bigger impediments than women. Either women are actually more knowledgable or men have paid more attention to the issue than women by virtue of being the primary income earners. There were no notable trends established among the reasons given by the non-holders on the basis of age.

Wage and salary earners seemed to be less knowledgable, and believed that cards would lead to impulse buying or unnecessary purchases more than the self-employed who are relatively better off. The attitude of the salaried respondents is a function of their fixed incomes where the monthly payment might turn out to be an unexpected burden when coupled with the service charges that are levied. Professionals might be better informed partially because of their experiences overseas and partially as a result of the feeling by salary earners that credit cards are for the well-to-do and not for them. Cross-tabulation of the users by profession revealed that the higher income earners were interested in transaction convenience rather than instalment buying. This finding is similar to the behaviour found in the US (Plummer 1971, Walker and Sauter 1974).

Non-Holders

The most important reason (40%) non-holders do not carry credit cards is not being well-informed and not knowing much about it. Some respondents (21%) felt that it was difficult to qualify if they wanted to get a card. Given that there were many respondents with adequate income and education levels, credit card issuers must be very careful to dissipate accurate information regarding the conditions to qualify so that misconceptions are not formed early in the introduction stage. Other respondents (16%) believed that having a credit card would lead to impulse buying or unnecessary purchases. The benefit of the card in allowing one to buy a bargain when on sale would be a powerful promotional theme for these people. Approximately 15% felt that it was not safe or was not useful and they did not have a need for it. Interpreted in the light of those who said they were not well

informed, it is quite clear that the card companies have not done a very good job of informing the customer of the benefits and the procedures involved in using a card. Indeed, some card issuers have not done much more than scratching the surface of the potential segment beyond the executives and others who represent the pent-up demand based on familiarity with cards that were obtained and used outside the country. This is an important strategic decision involving whether the credit card will become a commonplace method of payment or whether it will be seen as a convenience for a small "elite" segment therefore conjuring up images of prestige in ownership while shopping.

There were no significant differences among the non-holders based on their marital status or level of income. Level of education was important as university graduates had a more favourable attitude toward credit cards. However, university graduates felt more strongly than the others that it would actually lead to impulse buying. One possible reason for this behaviour is that many young graduates with rather limited incomes actually have higher consumption aspirations than those with lower levels of education and fear the temptation to buy now and pay later.

Sources of Information

The sources of information used by card-holders in getting credit-cards included a rather disappointing 18% for "advertising". However, men seemed to put more credence in advertisements than women. Nevertheless, it is quite clear that the banks which issue credit cards have a long way to go in educating the public. The most important reason cited for carrying a card was "personal preference" with 65%. Apparently, there is a certain segment that is ready to take advantage of the benefits offered by credit cards and is knowledgable enough to apply for one in the absence of comprehensive and convincing advertising.

Information Sources	USERS %	Nonholders %
Personal Preference	65 [1]	51 [1]
Card Advertisements	18 [4]	27 [3]
Family and friends	22 [3]	34 [2]
Work environment	29 [2]	18 [4]

Some 29% of the respondents stated that they were influenced by their work/business environment. Salary and wage earners appear to be more influenced by their work environment compared to the professionals and self-employed, possibly as a function of the differences in their socialization process. Approximately 22% of the respondents indicated that they were influenced by family and friends. Perhaps one way to dissipate information and remove some of the doubt surrounding credit cards is to use the aspiration theme with family members and friends in promotional campaigns. There were no statistically significant differences among the users based on gender, age, marital status and level of education.

The sources of information which influence the attitudes of non-holders is somewhat different except for personal preference which is ranked the highest by both groups. The high percentage of personal preference (65%) against card usage by non-holders is probably based on lack of knowledge. It is more likely that the number of those who are knowledgable but deliberately decided not to get a card is very small in this group. There is also reason to expect that many people who felt they could not qualify even if they wanted a card would probably use this alternative to express their views. Therefore, additional information on the nature and benefits of credit cards is very likely to result in conversions from this category of non-holders. Again, the importance of family and friends, suggesting the power of word-of-mouth advertising, is underscored for non-holders as well users. Both in developed (Hirschman and Goldstucker 1978) and in less-developed countries word-of-mouth advertising has been found to be a powerful means of promotion (Amine 1989). Card companies have the opportunity to seek out opinion leaders and invite them to obtain cards in order to expand their customer base and take advantage of their influence. In the late sixties, even companies in the US were selecting certain target groups and inviting these people to apply. Some groups, such as recent college graduates, were courted with pre-approved applications. Nevertheless, the early adopters are crucial in communicating their positive attitudes in order to convince others. Advertising appears to be more important for non-holders (27%) than the users (18%). Better ads that possibly address the concerns of the non-holders and encourage them to apply are likely to attract these people. However, the influence of the work place is the least important for this group and suggests that they are not very likely to respond positively to solicitations through their employer or similar formal and impersonal means as compared to "family and friends".

In looking at the sources of information, differences among the non-holders based on gender, age, level of education and income were not significant. However, advertisements were deemed to be a more influential source of information for salary-earners than they were for the self-employed and the professionals. Married people also listed that the influence of friends and family were more important as a source of information compared to the singles who listed ads and their peer group as being more important.

Conclusions

With approximately 500 thousand credit cards in circulation, there is no doubt that plastic money is in its infancy in Turkey. The usage and the management of credit cards by the issuers, retailers and even by the consumers is very much influenced by the infrastructure of the country where it is used. Many of the problems that are of concern in Turkey, and in other LDC's and developing countries, are part and parcel of the overall sophistication and the technological capacity of the banking and the telecommunications system. Just the simple task of mailing out statements cannot be assumed away outside the developed countries given the uncertainties involved. Security checks and credit authorization for purchases over a certain minimum balance require that the phone lines allow quick and reliable interface with the central computer. Delays and errors at this stage alone are a concern for both the customers and the retailers in terms of security and reliability as well as time and labour costs. At the retailer level, the degree of customer and service orientation has a direct bearing on the satisfaction and the willingness of the customer to obtain or use credit cards. For instance, it has been indicated in the literature (Kinsey 1981, Bowers and Crosby 1979) that ownership of a savings and a chequing account is one of the critical factors in credit card ownership. The fact that very few people actually have chequing accounts and even fewer retailers are willing to accept them has a bearing on the convenience of payment of card balances.

The Turkish customer is going through the introduction stage of the product cycle whereby the better educated, higher income, middle aged members of the upper-middle class seem to be the prime target. Whether this segment can be reached fully and than expanded to cover other groups to make credit cards as wide-spread as they are in developed countries can be examined by looking at the critical success factors:

1. RELATIVE ADVANTAGE: To the users, the card certainly represents a relative advantage in the form of convenience. To many of the Turkish non-holders relative advantage means credit terms and payment by instalment. However, in an inflationary environment, the monthly interest charged on these balances could turn out to be a disadvantage if one recalls the reputation of bank credit cards for charging very high interest rates relative to the rate of inflation in North America.

2. COMPATIBILITY: Like many developing countries, the Turkish economy is very much based on cash transactions at the retail level. Therefore, except for the innovators and the early adopters, the credit card is not at all compatible with their usual payment practices and beliefs about shopping. The attitudes of both the targeted consumers and many retailers need to be modified before credit cards become commonplace and widely accepted.

3. TRIABILITY: Credit cards are impossible to "sample" or try out for a limited time. Therefore, the "qualification /screening" process and the setting of initial limits are very crucial. The task is further complicated in developing countries by a general lack of data that could be used for credit checking as well as the unavailability of established, central agencies that could be used in credit investigations. Banks can experiment with relatively small credit limits to increase the number of users.

4. COMPLEXITY: For most consumers, once their attitude towards plastic money is changed, there is very little complexity in using the credit card, provided the consumer is able to read and write (which might be a point to be concerned about in many LDC's). The bigger problem is at the retail level where staff have to be trained to follow the NEW mechanical procedure as well as showing sensitivity to the feelings of the customer especially during the authorization/verification process lest s/he feels offended by the delay. Especially within the high context environments (who you are is important) of the developing and LDC countries, it is extremely important to make sure that delays in the verification procedure are not interpreted as a reflection on the credit-worthiness or the "value" of the customer.

5. OBSERVABILITY: To the extent more and more retailers accept credit cards, the convenience of not carrying cash and the availability of credit might be made "tangible" for the customer. At the retailer level, tangibility of the advantages of accepting credit cards will have to be based on its potential to increase sales and contribute to profits.

In conclusion, credit card usage appears to have attracted the better educated, middle-aged and married members of the upper-middle class. Most of the users can be classified as "wealthy local entrepreneurs and professionals" who indeed form the primary segment for credit card usage (Amine 1989). The Turkish banks that issue credit cards have the strategic decision of whether to go beyond their existing customers in order to increase their customer base. There seems to be a need to educate the potential customers on the value of credit cards by employing more effective communication and promotion campaigns than has been the case. As in the developed countries (Roll 1986), the biggest source of growth for Turkish banks is through cross-selling to existing customers. Therefore, banks must do a much better job of market segmentation (Mathews and Slocum 1972) and evaluating the files of their own customers to identify and attract potential credit card users. However, many aspects of the infrastructure hinder quick expansion of credit card usage. Just as important as the customers is the retailers who accept credit cards. The issuing

banks have to spend a lot more effort in attracting additional outlets outside the larger metropolitan areas. As well, it is vital that the retailers who are often independent and small operators are educated on the proper ways of serving the customer. Service befitting the prestige expectation of the users and card security are areas that cannot be minimized. Credit card marketing in developing countries seems to be one of those cases where **adopting** to local conditions would be well advised in order to avoid costly mistakes.

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OFFSET TRADING IN THE US AIRCRAFT INDUSTRY: HOW MUCH IS TOO MUCH ?

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Abstract

Offset agreements in the US aircraft industry reached their highest level ever in the period 1989-1991. In this paper, we ask whether the situation is getting out of control and whether in fact US companies are "giving away the store" insofar as rapid and uncoordinated technology transfer to overseas customers is concerned. The paper assesses the cost-benefit relationship of offset trading in the US aircraft industry in order to answer the question of how much is too much. Case studies are presented providing insights into the mechanics of five offset agreements set up during the period 1976 to 1988.

Introduction

Offsets are a form of countertrade in which negotiated concessions are made to a foreign buyer, (usually a government), in order to satisfy not only the buyer's immediate procurement needs but also broader long-term industrial, socio-economic or development goals. Offsets can be "direct," "indirect," or a combination of both. Direct offsets relate to and result from the original product, giving rise to obligations involving co-production, licensed production, direct transfer of technology, or sub-contracting. Indirect offsets are not related to the product being sold and may take various forms of commercial or financial involvement (Brennan and Amine 1991). In 1990, it was estimated that 57.2 percent of military export sales by US firms, worth some $19.9 billion, involved offset obligations to foreign purchasers (Impoco 1990). The increasing demand for offsets by foreign buyers of both US military and commercial aircraft has spawned considerable interest in the field by the US Congress (Aviation Week and Space Technology (AWST below) 1986).

In view of the large number of existing offset agreements, one might reasonably ask whether the situation is getting out of control and whether US companies are "giving away the store," insofar as rapid and uncoordinated technology transfer is concerned. This paper assesses the cost-benefit relationship of offset trading in the US aircraft industry, in order to answer the question of how much is too much.

Five case studies profiling agreements from 1976 to 1988 show the detailed costs and benefits incurred by individual companies. We evaluate not only the elements of each company's agreement in terms of costs and benefits, but we also consider the cumulative effects of multiple agreements on the US aircraft industry as a whole. This approach mitigates some of the inherent limitations of the case study method.

Methodology

Cases were selected on the basis of three criteria: (i) their exceptional or "trend-setting" character in terms of their large contract value or high offset percentage; (ii) the availability of sufficient data to allow a cost-benefit analysis; and (iii) the availability of corroborative information to ensure accuracy of interpretation. The exceptional character of these cases underlines the extent and reach of offset trading in this industry. Much of the information concerning aircraft offset agreements is confidential and proprietary. The case studies are written using information from multiple sources including both secondary and personal primary sources.

Analysis of each case is structured around three key elements: (1) agreement specifics (eg. dates, types of deals, products traded, contract values, offset percentages, and duration of obligations); (2) participants and their motives; (3) cost-benefit analysis. Direct, financial or implementational costs may be deemed acceptable by the selling company in the short- or medium-term, yet the cumulative, strategic and competitive cost to the US may become unacceptable in the long-term. Thus, what is considered reasonable now may change significantly in the future. The discussion below addresses this paradox.

It is also pertinent to note that within the terms of a single offset agreement, one component may appear unacceptable on its own but when viewed against the overall "gestalt" of the agreement, its negative traits are mitigated. An analogy can be drawn with the formal models of integration processes used in evaluating and choosing among alternatives in the consumer behavior literature. These consist of two types, compensatory and non-compensatory strategies. The former involves a trade-off of positive versus negative aspects, whereas the latter uses mini/max threshold requirements or "cut-off" points. (See Peter and Olson 1990, pp. 180-181 for further discussion of these two types of strategies.) Further discussion of sellers' apparent use of a particular strategy is presented in a later section.

Background on Offset Trading

Lecraw (1988) identifies ten key dimensions of countertrade which can be applied to the study of aircraft offfsets. These are timing, duration, percentage, mandatory or voluntary character, penalties, product/service requirements, quota limits, incremental exports, country destination, and countertrade mechanism. We consider that

three of these, (duration, percentage, and product/service requirements) are most relevant to the question of how much is too much. We will add a fourth dimension, that of the participants' motives or expected benefits.

The offset percentage is the percentage of the value of the contract which must be accomplished by means of countertrade. Offset percentages typically range from 30-100 percent of the cost of the aircraft being purchased. The use of percentages greater than 100 percent may be somewhat misleading since these figures refer to economic benefits generated, rather than actual direct costs or the costs to implement a program. Offset percentages often involve complex formulae containing multipliers to cover technology transfer or other long-term benefits considered to have special value to the buying government (Brennan and Amine 1991). In the case of aircraft offsets, even a modest 30 percent requirement can generate hundreds of millions of dollars' worth of future countertrade obligations.

The duration of an offset oligation can range from a few years to many years, depending upon the nature and extent of peripheral obligations to be accomplished. In the case of technology transfer, the completion of the obligation may be dependent upon the speed at which the buyer's industry can assimilate the new technology. Conversely, if the offset obligations are very varied and new to the seller, an extended time period may be needed in which to accomplish all the commitments to the buyer.

Several writers have examined the range of motives and expected benefits related to countertrade in general (Kaikati 1981; Khoury 1984; Verzariu 1985; Huszagh and Huszagh 1986; Shipley and Neale 1987). In the particular case of aircraft industry offsets, numerous potential advantages can be identified:

Sellers:
- increases in sales volume
- entry into difficult markets
- maintenance of foreign market share
- competitive advantage in bidding for new contracts
- improved flexibility in pricing
- better use of manufacturing capacity (ie. longer runs)
- alternative means of repatriating blocked currencies
- protection of foreign subsidiaries.

Buyers:
- development of new domestic aircraft industries
- modernization of existing domestic aircraft industries
- technology transfer into aircraft and other high-tech industries
- regional, economic and industrial development
- creation of new, high value-added employment
- compensation for defense spending on foreign-made equipment
- acquisition of expertise to maintain new military weapons systems
- promotion of exports to new foreign markets
- promotion of exports of non-traditional goods and services
- ability to trade low-quality or "hard-to sell" goods
- balancing of trade with specific partners
- saving of hard currency.

The range of possible motives for buyers goes beyond the confines of the purchase of aircraft into the realm of broader economic and development goals. This explains why governments in both developed and developing nations make such wide use of offset requirements. One might argue that from the buyer's point of view, "enough is never enough." For the buyer, the issue of how much is too much may be a moot question.

Five Case Studies

Case 1: F-16 Fighters to Four European Countries

Table 1 presents agreement specifics for this large, complex multi-nation agreement involving co-production and direct offsets. It has grown beyond its initial planned duration of twelve years as a result of sales to other third-countries such as Turkey (1983), South Korea (1984), and Greece (1985). The ramifications of this agreement may persist into the foreseeable future.

For the US government and General Dynamics (GD) as sellers, this "deal of the century" was the first large international sale of the new fighter aircraft and it allowed entry into the European market. Strategically it achieved standardization of fighter aircraft among European NATO allies, and economically it reduced the unit cost of aircraft built for the US Air Force (USAF) by increasing production runs. The per-unit fly-away cost decreased for the USAF by 20 percent over the period 1978-1985 (Alexandrides and Bowers 1987). For the four European nations, this co-production agreement provided modern fighter aircraft to meet their defense needs, and related technology was readily assimilated into local industries. New component manufacturers were established in Belgium and the Netherlands, several of which became second-source suppliers for US manufactured aircraft (AWST 1984). Trade balances of the four customer nations with the US were protected from the large expenses that a straight purchase, rather than co-production, would have entailed. In recent years, firms in the Netherlands and Norway have entered the international weapons market as suppliers, partly as result of the technology and skills gained through the F-16 offset program.

Case 2: CF-18 Fighters to Canada

Table 2 summarizes specifics of this 1980 agreement combining both direct and indirect offsets. As in case #1, this was the first sale of a new modern fighter aircraft to a NATO/NORAD (North American Air Defense) partner. The sale complied with countertrade requirements mandated by the Canadian government for this size of sale and type of equipment. In absolute dollar terms as well as offset percentage, this contract reached very high levels ($CDN 3.7 billion and 79% respectively). Also similar to case #1 were the follow-on offset sales to Australia (1981), Spain (1984), and Switzerland (1988).

For the Canadian government, this deal avoided a considerable outflow of currency and achieved substantial benefits through both direct and indirect offsets in terms of technology transfer, creation of employment, and promotion of exports (Alexandrides and Bowers 1987). The US government recognized the need for its close ally to develop a domestic capability to repair and maintain the CF-18 aircraft system, in line with the long-standing Defense Production Sharing Agreement (DPSA), so the technology transfer component was deemed acceptable. About 50 percent of employment in the Canadian aircraft industry is now due to offset agreements (Schaeffer 1989). McDonnell Douglas Corporation (MDC) has a long-established commercial aircraft component manufacturing plant in Canada that assisted in discharging direct offsets and also manufactured F-18 structural components. Regarding indirect offsets, a broad range of products and services can be credited against the offset obligation including high technology, aerospace, electronics, and tourism. Finally, a long time period of eighteen years was set for the completion of the multiple and varied obligations.

Case 3: MD-82 Commercial Transports to the People's Republic of China (PRC)

Table 3 presents agreement specifics relating to this co-production and direct offsets agreement. This was the single largest commercial contract that the PRC had signed with a Western firm at that time and placed MDC well ahead of its competitors, Boeing and Airbus, in that market. This traditionally difficult market opened up to MDC in large part due to the firm's willingness to offer countertrade programs.

The agreement offered the PRC the opportunity to become self-sufficient in production of large commercial aircraft (Cockerell 1987). As well as conserving foreign exchange, it ensured effective transfer of technology through extensive training programs in the fields of management and engineering. Although the aircraft technology was mature, it was new to the PRC and required incremental transfer to ensure effective assimilation. As local capabilities increase, there will be opportunity for incorporation of more locally-made components into the production process. Eventually, the PRC may become a second-source supplier to MDC for non-critical structural parts. In the long-term, the PRC may be able to export its aircraft to other nations in the Asian market.

Case 4: E-3A AWACS to the United Kingdom and France

Table 4 summarizes agreement specifics for this military contract combining direct and indirect offsets. A particular feature is the multiple involvement of the US government, Boeing, and two large sub-contractors, Westinghouse and General Electric, along with other smaller companies. Also notable feature the offset percentage above 100 percent.

Benefits to the sellers included strategic standardization of early warning systems between the US and two NATO partners, and commercial savings through reduced unit costs of extended production runs. The buyers gained access to modern technology and ensured continuing employment opportunities for local industries. Early estimates suggested that 50,000 man-years of employment would be provided in the UK alone over the life of the program (Brown 1986a).

Boeing had originally intended to offer a 35 percent offset but this rose to 100 percent and finally 130 percent (Schaeffer 1989). This high percentage was mitigated by several factors. First, the long-term service and training agreements offered Boeing opportunities in the future for further profitable business undertakings. Second, Boeing was able to bring in eleven major US AWACS sub-contractors to participate in the offset program. Westinghouse alone, as manufacturer of the radar and associated systems, is responsible for 25 percent of the offset obligations (AWST 1987). Third, Boeing's bid was actively supported by several French and British sub-contractors who stood to benefit from involvement in the offset program (Schaeffer 1989). Finally, recent forecasts suggest that Boeing will meet all its offset requirements by 1993, well within the eight-year time frame (AWST 1991a).

Case 5: FS-X Fighter to Japan

Table 5 presents agreement specifics for this controversial co-development agreement between the governments of the US and Japan, General Dynamics, and Mitsubishi Heavy Industries. Motivations on both sides were a mix of offensive and defensive stratagems. From the US point of view, there was a real possibility that Japan would succeed in developing its own new fighter plane and that learning from this project would be carried over into the commercial sector, thereby positioning Japan as a major global competitor (Samuels and Whipple 1989). In order to pre-empt this possibility and also gain some relief for the US-Japan trade deficit, the US proposed the co-development project based on a US derivative aircraft (Shinji 1988). The project consists of a large proportion of technology transfer to Japan but should also provide some reverse technology transfer to the US, particularly in the area of composite manufacturing expertise (AWST 1991b). Japan will benefit by acquiring new product and process technology, along with design and management skills. The dimensions of this technology transfer by the US were specifically accomodated by new rules for technical cooperation between US and Japanese aerospace industries, developed by the US Departments of Commerce and Defense (Mecham 1989).

The importance that the Japanese government attaches to the attainment of expertise in the aerospace industry is reflected in their willingness to accept a higher per unit cost through co-development than would have been the case with an "off-the-shelf" purchase. This has also been true for the license agreements which Japan has supported for several decades in order to produce locally MDC F-15 and Lockheed P-3 aircraft (Mowery and Rosenberg 1985). From the US point of view, 40 percent of the development and production work was considered to be more worthwhile than offering an F-16 license agreement or watching a new competing Japanese aircraft emerge on world markets.

Discussion and Integration of Findings

Technology transfer by US aircraft manufacturers poses very significant problems because the US is the world leader in the field. Not only are manufacturers naturally reluctant to share proprietary know-how and risk creating potential competitors, but they are also prevented in many cases from doing so by the government. If this is so, one might ask why in the five preceding case studies, did technology transfer play such an important and frequent role ? Surely, one might argue, the cost of these aerospace sales is clearly too much, if only because of this one factor. Two other factors, the offset percentage and the risk of follow-on offsets to third countries, may also be considered significant reasons for not pursuing aircraft offsets.

In evaluating the costs of offset trading, focus on individual factors such as the three named above reflects a non-compensatory strategy of evaluation. In this instance, when any one factor exceeds a given level, it automatically stops further pursuit of the opportunity. In reality, the typical approach by US manufacturers has been to balance what can be gained against what must be surrendered — essentially a compensatory approach. The danger here is that an important cost/risk factor may be considered to be mitigated by a host of smaller benefits that together appear valuable but separately may not be so enticing. US manufacturers may in fact "not see the woods for the trees." In three of the cases, the compensatory approach has been successful but in the other two, it has given rise to some dubious results, as is explained below.

In cases 2, 3 and 4 concerning Canada, China, and the UK and France, the two critical factors of which level of technology was being transfered to which partner were easily reconciled. Canada's decision to buy "off-the-shelf" provided MDC with the benefit of longer production runs and economies of scale. Canada's policy of maintaining a non-competitive stance with the US in this industry was favorable, and the offset program encouraged further industrial cooperation and integration between the two allies. MDC's offset program for China was regarded as the price of entry into that difficult but potentially lucrative market. Technology transfer involved mature designs and systems so, as in the case of Canada, the threat of creating a future competitor was minimal. In the case of France and the UK, similar economic benefits of an "off-the-shelf" sale accrued to Boeing. The fact that offset obligations were discharged in six years rather than the scheduled eight years, indicates that commitments were of a reasonable and feasi-ble nature. Although "off-the-shelf" purchases are initially higher in direct cost for the purchaser, when supported by an offset program other benefits are gained in compensation, such as training, technology transfer and industrial development.

In contrast, cases 1 and 5 involved some thorny issues that tend to cast doubt upon both the cost-benefit evaluation and the value of a compensatory approach. In case 1, the high percentage offset (58-80%) created a precedent leading to Turkey requesting a 60% offset program over ten years and Greece a 100% program over 15 years. New competing suppliers have emerged in the Netherlands and Norway. The inclusion of terms covering future third-country sales has created an open-ended situation for General Dynamics, the cost of which cannot be determined in advance. Re-negotiation may eventually become necessary.

Case 5 is the most controversial with regard to the nature of the technology transfer and the partner. There is a distinct possibility that the US may be fostering the creation of its own future rival. Opinions vary. Some believe that Japan is unlikely to parlay FS-X work into a commercial aircraft leadership role (Leader 1989). Others see the majority role of Japan in the offset program (60% versus a 40% share for the US) as evidence of current and evolving technical leadership (Samuels and Whipple 1989). Yet others see the Japanese threat as being sector-specific affecting components manufacture and avionics. There is no doubt though that this program will give the Japanese aerospace industry a powerful boost with regard to technology, development, and financing.

It is clear that costs must be evaluated not only in terms of individual factors defined in the present time (eg. direct versus indirect offsets and the level of the offset percentage), but also in terms of how these factors may combine to affect the future. Critical questions include: what precedents are being set; what are the expectations for future growth of foreign partners as potential competitors or second-source suppliers; and what are the cumulative effects of individual US companies negotiating multiple offset contracts with numerous countries around the world.

Conclusion: Perspectives for the Future

Part of the rationale behind the US/Japan agreement seems to be, at least from the US point of view, "if you can't beat them, join them," and "better the devil you know..." While one can argue that further internationalization and integration of world industries such as aerospace are all to the good, creating an "interlinked economy" (Ohmae 1990), the implications for national defense and competitive advantage are far-reaching.

Three alternatives to offset trading exist: outright refusal, acceptance as a "necessary nuisance" (Brennan and Amine 1990), or a new approach to offset negotiation. Refusal to use offsets is impractical. Offsets are an established competitive tool, are mandated by many governments of the world, and are critical to US aerospace suppliers in enlarging market demand. Acceptance of offset trading has the advantage of promoting global industrial intregation and extending the boundaries of technological know-how. The middle option, requiring a new approach, might involve some sort

of mediated offset trading overseen by national governments, particularly the US government. Another variant of the middle way might require the US government to re-think its policies supporting free trade. Indeed it may become necessary for the US to require reciprocal offset deals from trading partners to the benefit of local industries.

It would seem that offset trading in the US aircraft industry has almost reached the limits of what is reasonable and feasible, particularly insofar as technology transfer is concerned. Thus we conclude -- this much, and no more. Limits must be set by the companies themselves, keeping an eye to the future. The US government must play an active role in overseeing any future large-scale contracts in order to protect the strategic advantage of the US aircraft industry. Whether we employ a compensatory or non-compensatory approach to evaluation, we have now reached a point where the broader issues of preserving national competitive advantage must prevail in any cost-benefit analysis.

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TABLE 1
F-16 FIGHTERS TO FOUR EUROPEAN COUNTRIES:
AGREEMENT SPECIFICS

Date and Duration:	1976, 12 years for the initial contract but this may still be in effect due to continuing sales to third countries
Participants:	Sellers: US government, US Department of Defense (Foreign Military Sales), General Dynamics Buyers: Governments of Belgium, Denmark, the Netherlands and Norway (European Participating Governments - EPG)
Products:	To the Buyers: 348 F-16 A/B fighter aircraft From the Buyers: aircraft co-production in Europe and direct offsets (40% value of EPG aircraft; 10% value of US Air Force aircraft; 15% value of all third-country aircraft sales)
Statistics:	Contract value: $US 2.12 billion Offset program value: increasing, because obligations are open-ended Offset percentage: 58-80%

Sources: Dorfer, 1983; Mowery, 1987; Alexandrides and Bowers, 1987.

TABLE 2
CF-18 FIGHTERS TO CANADA:
AGREEMENT SPECIFICS

Date and Duration:	1980, 18 years
Participants:	Seller: McDonnell Douglas Buyer: Government of Canada
Products:	To the Buyer: 138 CF-18 fighter aircraft From the Buyer: aerospace and electronics (60%) including at least 10% for advanced technology transfer; diversified activities (40%) including a maximum of 10% for tourism development
Statistics:	Contract value: $CDN 3.70 billion Offset program value: $CDN 2.91 billion Offset percentage: 79%

Sources: Alexandrides and Bowers, 1987; personal sources of authors.

TABLE 3
MD-82 COMMERCIAL TRANSPORTS TO THE PEOPLE'S REPUBLIC OF CHINA:
AGREEMENT SPECIFICS

Date and Duration:	1986, 12 years with the possibility of extension
Participants:	Seller: McDonnell Douglas Buyers: Government of the People's Republic of China (PRC) and Shanghai Aviation International Corporation
Products:	To the Buyer: co-production of 25-40 MD-82 commercial aircraft in the PRC; transfer of technology, know-how, and equipment for aircraft component production and aircraft assembly; training for 1200 Chinese engineers in the US; participation in future MDC commercial aircraft developments From the Buyer: aircraft valued at $US 300 million to be exported from the PRC on a "best effort" basis
Statistics:	Contract value: $US 1.0 billion Offset program value: $US 300 million Offset percentage: 30%

Sources: Smith, 1985; Johnson, 1986; Alexandrides and Bowers, 1987; Cockerell, 1987.

TABLE 4
E-3A AWACS TO THE UNITED KINGDOM AND FRANCE:
AGREEMENT SPECIFICS

Date and Duration:	1986, 8 years
Participants:	Sellers: US government, US Department of Defense, Boeing, major Boeing sub-contractors in the US (Westinghouse, General Electric); in France (SNECMA, UTA, CFM International); in the UK (Plessey, Racal Electronics, Ferranti) Buyers: Governments of the United Kingdom and France
Products:	To the Buyers: 11 E-3A AWACS (Airborne Warning and Control Systems), seven to the UK and four to France From the Buyers: 10% direct offsets involving aircraft and electronic components for AWACS aircraft; 90% indirect offsets to include any other items of "sufficient high-technology;" various aerospace and electronic products
Statistics:	Contract value: $US 1.512 billion (UK) and $US 0.704 billion (France) for a total of $US 2.216 billion Offset program value: $US 2.88 billion Offset percentage: 130%

Sources: Brown, 1986a, 1986b; Aviation Week and Space Technology 1987, 1991a; Schaeffer, 1989.

TABLE 5
FS-X FIGHTER TO JAPAN:
AGREEMENT SPECIFICS

Date and Duration:	1988, long-term
Participants:	Sellers: US government, US Departments of Defense and Commerce, General Dynamics Buyers: Government of Japan, Mitsubishi Heavy Industry
Products:	To the Buyers: co-development and co-production of 100-130 FS-X fighter aircraft, based on F-16 design and technology; transfer of additional substantial modern fighter aircraft technology From the Buyers: access to jointly developed technology (but payment to Japan for Japanese-developed technology). (Note: 80% of the final aircraft is expected to be of Japanese design.)
Statistics:	Contract value: estimated at $US 4.55-7.0 billion Offset program value: undetermined Offset percentage: Japan will be responsible for 60% of development, (US - 40%) and 60% of production (US - 40%)

Sources: Morrocco, 1988; Mecham, 1989; Shifrin, 1989; Aviation Week and Space Technology, 1991b.

EUROMARKETING: FACTS AND FICTION

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Abstract

This paper aims to start a debate on the concept of Euromarketing by attempting to answer the following questions. What is Euromarketing ? What are the boundaries of Euromarket ? Is it a political issue or more of a cultural, historical and geographic matter ? What are the determinants of Euromarketing ? Who is the Euroconsumer? Additionally, strategies for Euromarketing and other related issues are also discussed.

Introduction to Euromarketing: An Entirely New Concept?

Euromarketing is an emerging concept which came out as a terminology with the preparations of the European Communities for the year 1992 which aim to create an internal market of about 320 million consumers. In order to see whether this terminology was used before in a recent paper, a literature study was carried out to scan the published material within the last 5 years through ABI/Inform(CD-ROM) Computer Aided Information Retrieval Programme, which covers 800 periodicals in the English language. No reference has been found which used this terminology. However, this search has indicated several references covering many aspects of business life in the European scene, including marketing related issues. But no specific reference has been made to the terminology of Euromarketing. Several problems of European business were covered in these studies. French authors Mourier and Burgaud have published the first Euromarketing book in France in 1989. (Mourier and Burgaud 1989). That seems to be the only book using the Euromarketing terminology as a title.

Their concept of Euromarket was confined to the present boundaries of the European Community (EC) member states. Another author, Vandermerwe, used "Pan-European Marketing" in the same context but her concept of Euromarket was larger than the previous authors; not only covering the 12 member states of the EC but also including European Free Trade Are (EFTA) countries (Vandermerwe 1989). The same author and L'Huillier used the terminology of Euro-Consumer in a separate article (Vandermerwe & L'Huillier 1989). The author of this paper did not come across with other books or articles using this terminology as a title or in their titles as well as in their contents until the end of 1989. This shows that Euromarketing terminology is very a new one and the boundaries of this concept has not been clearly drawn yet. There are some vague ideas about the concept, but there is not yet an agreed definition, nor an accepted theme for Euromarketing. However, in several studies general predictions have been made about the future of Europe as a single-market and its challenges in specific fields of business. Many of these studies are covered in our search. In this paper, we will try to stimulate some ideas and try to bring some thoughts together. One of the aims of this paper is to start a debate about the concept and terminology of Euromarketing and its macro and micro determinants, controllable and non-controllable environments and characteristics of a Euromarketing mix. First of all we must look at the concept of Euromarket before going into further discussions on the issues of Euromarketing in detail. There seems to be a difference of opinion on the boundaries of Euromarket (Pan-European Market) among writers. These difference may be grouped under three categories:

i-Euromarket as only 12 EC member states,
ii-Euromarket as 12 EC member states plus EFTA countries,
iii-Euromarket as 12 EC member states plus EFTA countries plus Associate Members of EC plus probable EC membership candidates or some other European countries which already have or will have closer trade links with EC and EFTA countries so that they can not be treated as outsiders of the same market.Also developments taking place in Eastern Europe may bring new candidates in future.Those who subscribe the idea of Euromarket as 12 EC member states have approached the Euromarketing issue from the general Single Market point of view with its immediate impacts and effects, rather than within the context of a broader Pan-European issue. All those who discussed the implications of 1992 may be grouped under this category. Those who accept the concept of Euromarket as 12 EC member states plus EFTA are also approaching a shorter time perspective and again from the immediate impact and effects point of view. According to Vandermerwe "the use of the word Pan-European is intended to include both the 12 EC countries and EFTA, since the EFTA countries will become integrated into the free trade arrangement of the single market"(1989). In our view, the concept of Euromarket is a broader issue with the inclusion of the existing and prospective Associate members and probably the East European countries in the long run. Associate membership gives more access to the Single Market than non-Associate membership does. In addition to the present Associate membership conditions, in the very near future, some of the Associate members may become full members and when they do, they will start applying gradual elimination of custom duties for the goods coming from the EC member states and will be treated preferentially by those countries. From this point of view, to accept the boundaries of Euromarket from a broader angle seems to be more strategic thinking than limiting it only to the 12 EC plus EFTA countries. In addition to this, the following points will also contribute to this reasoning:

Euromarket: A Geographic Reality

The 'Euromarketing concept' should not be limited by the physical boundaries of the current EC member states. European Free Trade Area (EFTA), associated member states of the EC, like Turkey, Malta and Cyprus are also parts of the Euromarket. With the changes leading to politically democratic systems and to the formation of market economies in Central and Eastern Europe, we may witness the expansion of the boundaries of Euromarket. The concept of Euromarket has two additional characteristics to its Single Market geographic boundaries; these are the multi-party

democratic systems and the free market economic structure. So, when we talk about Euromarket, we are not only talking about an internal Single Market with unified or close rules but we are also talking about a regional economic sphere sharing common political and market structures as well as a common future. This approach represents a market of more than half a billion consumers, making the Euromarket the biggest economic block. Such an economic size will of course provide business opportunities as well as threats to other economic blocks, countries and companies, both internal and external. In this regard,the first step toward a Euromarket will be the full integration of the EC economies.This experience will shape the future of Europe. The lessons to be learned from this experience will also help us to develop our views for a longer term European goal and Euromarketing objectives with suitable strategies further refined and revised accordingly.

Although everyone expects at Single EC market by 1992;this internal market will in fact not be ready by 1992 but, at the end of that year; in real terms, in January 1993. This internal market foresees the abolition of internal customs barriers among the EC member states which will lay the ground for free movements of goods and services and the production factors within the member states' boundaries.This is the first development step toward a concept of Euromarketing.

A Social Reality

Another general characteristic of the Euromarket is the demographic nature of the population of present EC countries.Templeman states that "as birthrates decline and life spans lenghten, Europe's population will have a higher average age. This could cause political, social and economic turmoil. Strains are already starting to show. For example, government pension and welfare systems are teetering on the brink of bankruptcy, health care networks are stretching to the breaking point, and employers are desperately trying to recruit new young workers. These demographic changes are expected to cause tensions between generations of elderly demanding benefits and the younger workers who must pay for them and between industrialized European countries and underdeveloped countries (Templeman 1989). 0f course the demographic characteristics of Euromarket will change toward a younger population with the enlargement agreements.This may create further opportunities in the fields of public health, recreation, housing and other social services. In addition to that, Euromarket has also a potential not only for free movements of goods,services and capital,but also for the free movement of people. The outcome of this development may mean the concentration of highly skilled human resources in some more industrialised regions of Europe as well as the solution for some skill shortages. Euromarket has additionally a large migrant worker population who will bring cultural diversity to consumer markets as well as to the industrial ones. According to Gibbs despite the vast geographic spread of the EC boundaries, over three-fifths of the Community population and its GNP are found in a relatively small area, called "The golden Triangle" which generates some five to six times the amount of GNP of the areas bordering on the Mediteranean Sea (Gibbs l990). This Golden Triangle covers the following West and North European cities: Liverpool, Birmingham, London, Rotterdam, Amsterdam, Antwerp, Rouen, Paris, Luxembourg, Bonn and Cologne. If we link these cities with three roughly straight lines, we will get a triangular region in the middle. By eliminating the trade barriers the Euromarketers "will save more than 200 billion US dollars over the years" (Cote 1988). 0f course this will have an impact on the strategies to be devised for consumer and industrial products as well as on the expansion and relocation plans of the European and non-European companies for targeting their markets.

A Political Reality

Another important point to be taken into account is the political nature of the Euromarket, which is a product of a series of international agreements among the member and associate member states based on several detailed treaties and the "Single European Act", ratified by the national parliaments of the EC member states and future agreements to be signed with the Associate and non-member countries. This political nature of Euromarket also contains multicultural, multilingual, multiethnic and multiregulatory elements. It is very difficult to have ethnically and culturally similar consumers as well as legal structures applicable in all national/regional segments of Euromarket. According to Vandermerwe the Pan-European market "is an integration of fragmentation "(Vandermerwe 1989). From this point of view, Euromarket may be seen as a mini-global market, covering diverse consumer characteristics, as well as diverse regulatory forces, diverse socio-political structures and diverse technological characteristics in each nation-state or political segment. Vandermerwe and L'Huillier have used traditional segmentation techniques to segment the Euromarket into the following sub-sections: cultural (language), geographic(latitude and longitude), demographic (age groups), and economic(income). Of course other segmentation methods may also be applied when marketers want detailed information about customers at consumer and industrial market levels.Vandermerwe's concept of networks of markets such as: national mass markets, national niches and local niches are similar to our understanding of mini-globalisation with the localisation approach within the context of Europe.(Vandermerwe 1989). Therefore uncontrollable factors in Euromarketing can be seen to resemble the uncontrollable factors of global marketing, but on a mini scale, covering only European nation-states.

A Cultural Reality

Being a European is not only a geographic matter, it is also a matter of cultural orientation. Similar value systems, work ethics, business traditions, work practices despite diverse national characteristics still exist in Europe. At the same time, the sense of belonging to a greater entity of Europe has created a generation of young consumers identifying themselves as Europeans.From this point of view, Euromarket is more united than before, but local traditions are also important in the lives of consumers and in the business practices of industrial marketers. In a very recent article Priovolos and Fergenson concluded that, "US Entrepreneurial Firms might be facing a series of cultural obstacles" (1991). The industrial Marketing and Purchasing Group(IMP) set up about 10 years ago by some European Universities have observed some unique international industrial marketing practices among the European firms based on the interaction approach (McCall & Warrington 1989 and Turnbull & Walla 1989).Van Luijk noted that "although European business ethics today resemble

American business ethics of about 8 years ago,there are differences in:
l. single issues,
2. ethical codes,
3. moral individualism and,
4.political traditions" (van Luijk 1990).
The same author concluded that"European businesses face a new ethical situation caused by: l-the number and size of their problems, including the globalization of markets, the increased number of acquisitions and mergers, and the social impact of large corporations' decisions, 2-a new openness within ethics as a discipline toward normative issues in business, and 3-the growing number of people ready to strive toward various forms of rational exchange and discussion.Three levels of ethical reflection should be considered: a-issues of concern, b-processes of decision and c-patterns of thought. In view of the different experiences of the US and of Europe, if special features in the European way of handling normative social questions emerge, they should be paid attention to" (van Luijk 1989).

A Historical Reality

Despite having a turbulent past in the history of Europe, the concept of Europeanism has also its own unique historical development. After the Second World War, European countries formed The Concil of Europe to discuss common matters, and the future of Europe. Later on The European Steel and Coal Union emerged. Other efforts to create common interest and cooperation areas include EURATOM, The European Centre of Nuclear Research (CERN) and other specialised bodies like EUREKA and EUROSAT to foster European cooperation. The Treaty of Rome which laid down the foundations for a European Common Market can be seen as a cornerstone for the development of Euromarket. The concept of a common market was later on transformed into the concept of a European Community with strong political, financial, legal and administrative ties among member states.It has been a long way from the early visions of a common Europe and the ideas for a united Europe of the future. However, a European Central Bank, the free movement of capital and financial resources, the greater freedom for banks and insurance companies and other issues are presently under study by the EC officials in Brussels who are sure to bring more coherent rules into the Euromarket. According to Delachaux, the following issues still remain to be resolved before the 1992 deadline;
1. The establishment of a European central bank,
2. The modification of the rules governing mergers and acquisitions,
3. The normalization of rules and regulations applicable to products.
And issues have already being resolved are:
1. The guarantee of the free movement of capital by 1990 (eight out of twelve countries agreed to),
2. The liberalization and standardization of road transportation
3. An unique licensing system for banking (Delachaux 1990).

Euromarketing Mix

In order to plan and apply succesful marketing strategies, the controlable marketing variables, namely the marketing mix should be changed if necessary, and adapted to the objectives of the target markets and segments.This basic reality does not change even when we refer to Euromarketing. Therefore, one must raise the fundamental issues about the four P's: Product, Price, Place and Promotion; How European are they? Is there a Euro-Product? How standardized are the products sold in European national markets? Are there standard packaging and branding regulations applicable in all European states? According to Oliver "The 1992 programme for harmonization of technical standards across the EC means significant changes in all areas of industrial marketing. In addition to the final product, directives can affect the raw materials, labelling, packaging, and the transport methods that can be used"(Oliver 1990). Thomas noted that by 1993 when the EC legislation take place, it will harmonize packaging standards (1988). Tigner reports that "The European Foundation for Quality Management (EFQM) which was founded in 1988, by Europe's 14 most important corporations, has the goal of changing corporate thinking across the entire spectrum of European business by the completion of the internal market on January 1993"(Tigner 1989). Although this development is related to the 12 EC member states, in the future, even the non-EC countries particularly, those European countries trading substantially with the EC member states should take these developments into consideration, if they have not already done so. Despite several directives already having come out of the EC Commission, we can still raise more issues here "What about the rights and the protection of Euroconsumers? What about the liabilities of producers and intermediaries in the Euromarket? Is there any common regulation covering pricing? What about the public rules governing market facilitators eg. advertising agencies, telecommunications and transport companies? Brinkhuijsen notes that European industrialists have recommended the following changes in the telecommunications fields to be implemented within the context of preparations for the Single Market: " 1 - increase synchronization in the introduction of new services, 2-establish international standards, 3-develop a more uniform pricing structure for trans-European services "(Brinkhuijsen 1990).The European Commission, as the central bureaucracy for Euromarketing activities, is moving closer to business. Robinson noted that policies were being used to remove the legal obstacles standing in the way of the transnational activity of European enterprises. The new roles for the Commission include: l-channelling business requirements into the political process, 2-helping businesses to build a consensus on problems, 3-public fund-raising for industry, and 4-acting as joint leader in certain European projects"(Robinson 1986).
What about the regulations governing promotion? Public broadcast systems, printed media andt other media channels? Rules about the practical applications? As an answer to these questions, Eales notes that"as Europe moves toward a single market, some companies are talking of Pan-European marketing and media campaigns, while the US is moving toward regional and local, sales and marketing. Stokholm's conference of the Council of Europe agreed to set common broadcasting regulations and standards, with limits on advertising time among the rulings. Media owners are multinational companies, but the media has not been internationalized.This is a challenge for media owners throughout Europe, as it moves toward 1992"(Eales 1989). Buck and Yates observed that "while the differences in tastes and in institutional frameworks among the various European countries are sufficient to make the concept of Pan-European marketing only an aspiration rather than a strong possibility, there are some trends that affect all European countries, such as: l-most European countries are

entering the third stage of television development, which is characterized by the rapid growth of multiset households and an-expansion in the number of viewing options, 2-the number of brands in grocery products has proliferated. Thus,there is fragmentation in both viewing and purchasing. The answer to this problem of fragmentation, is for advertisers to forge a direct link between purchase patterns and TV viewing, that is to establish a single-source of data. One way to do this is through the use of electronic people meters for measuring TV viewing allied with bar scanning devices for measuring product purchases. Applications of such a system would include the testing of the effectiveness of advertising and the tracking of media exposure and purchasing"((Buck and Yates 1987). In addition to several public policy related regulations and issues governing marketing mix in the Euromarket, individual companies face the problems of adjustment , adaptation and adoption of all detailed issues of the marketing mix for each product and for each market segment. Even marketing research practice will be affectet by the developments of the single market. According to Bates "When the industrial structure of Europe begins to change, so will the structure of the marketing research industry. Certain industries will tend to cluster at specific geographic locations, with product development and research concerned with providing for the needs of the total European market instead of those if individual nations. One consequence for the marketing research industry is a probable shift in the location of research suppliers' offices to the areas where the new industries are centered. Agencies supplying research services will have to offer a European-wide network"(Bates 1989).

A Euromarketing Strategy: Opportunities and Threats for a Mini Globalization Strategy in Europe

Although some companies, European,US and Japanese have developed some strategies applicable in more than one EC member state,there is not yet a generally accepted Euromarketing strategy. Daems suggests the following issues when European Companies review their strategies for a Euromarket:

"l-whether the company's competitive position will be sustainable as competition intensifies, 2-what the company can do to strenghten its position, 3-which European markets the company should compete in, and how the company should serve these markets, 4-how the company should use its existing production facilities, activities"(Daems l990).New developments taking place in Central and Eastern European countries have created an "Eastern Europhoria"according to Donlon.He suggests that companies should be rather patient and to observe these changes until the new rules are firmly fixed. He also advises that"competitive markets will not work unless individuals are held responsible for failure and are rewarded for success.To some extent, reforms have been tried in Eastern Europe and in the USSR, but the state monopolies remain. Investors have reason to be wary if countries emerging from socialism do not reward risk taking"(Donlon l990). Kaynak and Samli identified four critical trade issues to be applied to Eastern European relations:that " 1- East-West trade needs to be expanded, 2-numerous barriers to East-West trade must be overcome, 3-a key factor in this deficiency is the lack of understanding of East European marketing systems, 4-a growing need exists for extensive, systematic research to facilitate the expansion of East-West trade"(Kaynak and Samli 1986). Their observations have been updated in a recent article by Quelch et al(l991). Today, almost all East European countries have started to develop some sort of a free-market based economic structure and their efforts are still continuing.

At the human resources area there are new developments to be observed. Thorne concludes that "international companies cannot expect to find international managers who would be successful anywhere in Europe in the same way that effective US executives would be competent anywhere in the US. This is because European culture has too many dividing factors, and different nationals share some important prejudices about other countries within it. This will change, but only very slowly, and as a result of the destruction of European business languages, European business people will begin to speak English at work, and perhaps then managers in foreign lands will attain the competence of the native manager"(Thorn 1986).This means that in the future,the language of Euromarketing at the international business to business marketing and communication level, will be the English language; like in the case of Japan, South Korea and other Newly Industrialized Countries(NIC)s. Despite several positive changes taking place at the policy level,the fact remains the same as Bruce noted;"the changing world of European business has created a need for a new type of senior executive, one who is able to combine sensitivity to local realities with an understanding of the wider European and global market. In spite of the momentum toward the internal market and the battle for global competitiveness,the new type of "Euromanager"remains a rarity. The extent of the emerging shortage of Euromanagers varies according to the country and the industry"(Bruce I989). In an article entitled "Scrambling for 1992"Bertrand observes that"US marketers are positioning themselves in what promises to be a much more competitive European market.US companies are;

l. gathering as much information as possible about the singlemarket's progress,

2. auditing their European marketing,from product design to distribution,and

3. adjusting each to meet the new Europe's demands. Community members have already agreed to a system of mutual recognition, under which a product tested and certified in one country must be admitted to other EC markets,assuming it meets basic Community-wide health and safety standards. These changes have led US firms sourcing, manufacturing or conducting research and development within the EC. Firms that cannot take advantage of these options are forging technology transfer agreements or joint ventures with European partners"(Bertrand 1989). Arbose reporting about the outcome of a comprehensive survey covering European businesses, foresees the following trends taking place in the actual business environment;" l-more sourcing of products and components from foreign countries, 2-an increase in foreign market research budgets, 3-an improvement in managers' fluency in foreign languages, 4-attendance at more conferences abroad, and, 5-greater use of worldwide telecommunications facilities" (Arbose 1986).This trend clearly shows that Euromanagers are becoming more global in their theory and their practices. This trend will shape the future of Euromanagement as well as Euromarketing. Until the time comes for a coherent internal Euromarket with uniform rules and regulations governing marketing functions and marketing activities, and until business firms develop strategies applicable to all EC member states, it will be very difficult to underline the foundations of Euromarketing strategy for each company should be in. But some generic Euromarketing strategies are emerging among US, as well as European and Japanese firms. According to Gerrie,"as UK companies are challenged to expand their European operations and the threat of

increased competition in their domestic market grows, pan-European strategies have acquired a new urgency.Key players in the European market have a desire to consolidate manufacturing,image and budgets.The objective is to avoid the problems that were perceived to have been caused by trade and consumer markets as parochial operations that differed from country to country"(Gerrie 1988). There seems to be a growing concern among the business leaders that Europe 1992 may create a"Fortress Europe"heavily protected by a web of legislations. According to Altony "European markets and the US will grow more protectionist and 86 percent of those surveyed in the research believe that EC policy toward Japan will become more restrictive"(Altony 1989). In a study published by Price Waterhouse,the following observations have been noted;"the coming changes in the traditional European business environment will present opportunities as well as threats to firms doing business there.There will be considerable opportunities available to the US.For example, the European companies are not as accustomed as are US firms to large-scale manufacturing for a continent-wide, integrated market. In addition, US companies are often more accustomed to logistical planning in a geographically widespread market. The US is also ahead of Europe in the use of information technology, particularly electronic data interchange. For US multinational companies, the most urgent issue regarding 1992 may be the matter of mergers and acquisitions. The conventional advice to 1992 players in Europe is to expand,and if the firm is already big, the advice is to get bigger. Now is the time for the multinationals to consider where and how their major markets should be expanded, where they should manufacture across Europe, and how they can improve the sourcing of raw materials"(Price Waterhouse 1989).There is another trend observed in Euromarket, which is the growth of strategic alliances between EC and non-EC companies.There seems to be a general eagerness to have a presence within the EC boundaries before January 1993.At the EC level, some movements have been observed among national companies towards becoming true European entities through strategic alliances. According to Mourier and Burgaud (1989), one of the consideration for European companies in order to take advantage of the opportunities of the Single Market, is to identify common characteristics among Euroconsumers. This will help the creation of the mass production of products or services which are acceptable by a large group of Euroconsumers representing the different geographic locations of Europe.For those consumers who have no common characteristics with others, special marketing programmes should be applied, according to their unique characteristics.This approach will represent in a way, a global localisation strategy: ie. thinking the Euromarket as a mini global market but as having also the avantage of positionining, and of smaller market niches. These specific market segments could well provide excellent opportunities for small and medium-sized enterprises operating in this single market.

Conclusions and Future Directions

In this paper, attempts have been made to assess the implications of a concept of Euromarketing beyond the boundaries of the present EC, by taking into account past, present and future economic and political developments.This concept is still new and needs further refinement and development based on research, particularly in view of changes in the next decade.The developments currently taking place at the EC level and in the rest of Europe will bring new dimensions as well as dynamics to the Euromarketing concept.Therefore researchers, academics, policy makers and practitioners of marketing are urged to develop further, this concept,its implications and future directions.This approach in a way, combines international marketing with the theory and practice of internal marketing.This is a unique opportunity for researchers to observe, develop and envisage the interrelationship of these seemingly separate but practically interdependent, issues.It is hoped that in future, Euromarketing will make significant contribution to the fields of both marketing and international marketing, towards creation of a special area of research and publication interest.

References available from author

U.S. TRADE PROTECTION IN THE 1990s: STRATEGIC IMPLICATIONS FOR THE AUTOMOTIVE, ELECTRONICS, AND TEXTILE INDUSTRIES

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ABSTRACT

Protectionism threatens to become a problem of global proportions. Persistently slow economic growth and high unemployment in the United States have combined to intensify protectionist pressures and to weaken free trade efforts. Within the U.S., the regulation of imports affects the deficit, economy, business, workers, consumers, and relations with other nations. This paper examines the effects of U.S. trade protection for the automotive, electronics, and textile industries. Strategies for policy makers and international marketers are also discussed.

INTRODUCTION

Pure capitalism and free trade exist only in textbooks. A self-regulating global economy with full employment, full production, and balanced trade that benefits all without government intervention is the stuff of theoretical models. The theory of comparative advantage which postulates that countries trade the items they produce most efficiently, thus inducing proper allocation of resources and higher standards of living, has been altered by countries more concerned about making money and rising into the ranks of industrial leaders.

The concept of protectionism where a government reduces competition from foreign producers in its domestic markets through such interventive practices as tariffs, quotas, or exchange controls to strengthen domestic industry and prevent job erosion has become the subject of many heated discussions and political campaigns in this country. As the gloom and doom of the continued recession spread, so does xenophobia. Many Americans are simply tired of losing industries, jobs, and wealth to foreigners and feel that this nation is not getting a fair deal from Japan with its essentially closed borders. This frustration was reinforced by the remarks of Lee Iacocca, Chairman of Chrysler Corporation, upon his return from the trade mission with President Bush to Australia and Asian countries which were widely reported in the press. To a growing number of people in this country, some kind of protectionism, effectively administered, offers the means to restore the economic strength of the United States.

PROS AND CONS OF PROTECTIONISM

The call for protectionism arises from the perceived need to protect a country's markets against destructive intrusion by foreign companies. Supporters state that it is in the best interests of the domestic economy to restrict the importation of foreign goods (Reed 1984). The reasons cited for protectionism include sheltering important industries, maintaining employment and the standard of living, and the need to encourage investment in the home country (Cateora 1990).

Among the factors contributing to the substantial merchandise trade imbalance experienced by the U.S. are high wage rates and restrictive work rules. Many U.S. based firms have tried to overcome these disadvantages by moving production offshore. While such moves may have lowered their costs and made them more competitive, they reduced employment opportunities and income in the home country. Some foreign manufacturers have taken advantage of this job drain to strengthen their positions in the U.S. market by building factories here and hiring American workers. To counter growing protectionist sentiment, Japanese car manufacturers have expanded their market shares through production in this country. By investing heavily in the U.S. and providing jobs, they have been able to defuse some of the criticism leveled at them.

While protectionist policies may help shelter some domestic industries, such as the automotive, electronics, and textile industries, at least partially or temporarily against aggressive import competition, their long term effects can be quite negative for both international trade relations and domestic consumers. As a result of important restrictions, fewer goods are available to consumers at higher prices. According to one estimate, voluntary restrictions placed by Japanese car manufacturers on their imports from Japan - which were designed to avoid the imposition of quotas - cost American consumers $270,000 for every $22,000 job saved in the U.S. auto industry (Merline 1989).

Arguments against protectionist measures include the following. With the growing diversity and complexity of corporate objectives and operations of U.S. based multinationals, no system of protection is likely to be appropriate for all. Foreign based firms may actually use protectionist measures against the very companies they were intended to protect through manipulation of their domestic operations. Protectionism may well reduce the ability of U.S. firms to compete in world markets. Detrimental trade- offs often have to be made between protected and unprotected industries (Levinson 1987).

DISCUSSION OF RELEVANT ISSUES

American industry - which had long enjoyed the position of technological and economic leadership in the world - has been experiencing increasing difficulty in competing with foreign firms on its home turf. Signs of surrender abound as U.S. firms lose market share, are bought by foreign investors, enter bankruptcy proceedings, or join the competitors they cannot seem to beat in strategic alliance.

A Yearning for Free and Fair Trade

Free trade, a long standing ideal, means that products can cross national boundaries without inhibition or interference. Due to conflicting interests of various groups in a country, free trade is not a likely occurrence anywhere, anytime. Realistically recognizing the existence of trade barriers imposed for political reasons, the concept of fair trade suggests that access to each other's markets be equalized between trading partners in the interest of fairness.

Balanced trade cannot exist if a steady tide of imports into an economic system disrupts a country's relationship between supply and demand. No country can remain economically stable if supply is always growing faster than demand, particularly if foreign supply is growing faster than domestic industry. No magical hand guides the international exchange of goods to work fairly and effectively, for the benefit of all. So governments intervene to control trade imbalances and prevent economic disaster.

Protectionism is Alive and Well Abroad

American businesses which are engaged in international trade are painfully aware of the problems created by varying government policies. "Governments use their myriad powers - subsidies, favorable banking practices, local content requirements, exchange controls, and the like to win jobs and gain higher income for their people" (Cullertson 1986, p. 122). Such actions by foreign governments not only promote their countries' exports but impede the flow of imports into their markets. Here are some examples:

- Japan grants favorable credit terms to businesses to allow them to grow and develop. Loans are easier to obtain if they are used to promote international trade.
- Taiwan is very lax in enforcing patent and copyright laws. This hurts American businesses because their products are counterfeited with the profits from these illicit activities going to Taiwanese firms.
- Communist countries like China have few workers' rights to worry about and may even use prison labor while their American counterparts pay high wages and benefits.

Such policies protect, or at least give unfair advantage to, one nation's businesses, resulting in unfair trade. If the U.S. mentions the possibility of using protectionist policies, however, cries are heard from these same countries and retaliation is threatened. In response, the U.S. government retracts and does not even adequately enforce already existing protectionist measures such as the multifiber agreement or voluntary restraint agreement.

As an affluent country, the U.S. is called upon to assist the growth of less developed countries (LDCs) by granting unlimited access to its domestic markets. The inevitable result of satisfying this demand is a decline in domestic employment and output due to aggressive displacement by lower priced imports. A backlash against such a development hurts the LDCs through import restrictions.

Costs Vary Significantly Among Nations

How can countries compete fairly if their standards of living vary? Substantial differences in living standards complicate trade as they reflect variations in wage rates, market baskets, and buying power.

The United States has a high living standard, and wage rates and buying power are high. These factors translate into high production costs which reduce American firms' competitiveness in the global marketplace. Countries with low wage rates enjoy low production costs which U.S. firms cannot match without severe cuts in important programs such as research and development, plant upgrades, and advertising. Such short-term cuts undermine the firms' long-term viability since no money is invested in their future.

Some companies move operations abroad in an attempt to benefit from lower wage rates. In the process, they often sacrifice jobs and control and fail to realize the economies they anticipated. Meanwhile, foreign based competitors petitors continue to import aggressively goods made abroad and undersell merchandise made in the U.S.A. Since many imported goods are of good quality and consumers often buy on price, domestic market shares of domestic manufacturers are eroded and factories close. The continuing shrinkage of General Motors is but one example that illustrates this alarming trend.

AN EXAMINATION OF THREE CORE INDUSTRIES

Having discussed a number of relevant issues related to the concept of protectionism, we will now examine conditions and trends in three core industries - the automotive, electronics, and textile industries. We will determine the validity of the concerns outlined above in the contexts of these industries and review potential remedies to the threats posed to companies and their workers by unfettered competition from abroad.

The Automotive Industry

The history of the American automobile industry began in the early 1900s with the introduction of the first mass produced car by Henry Ford. The evolution of car manufacturing in Europe notwithstanding, U.S. companies retained their leadership of the worldwide automobile market until the second World War, representing 90 percent of world production. The growth of European car makers and the emergence of vigorous Japanese competitors shrank the share of U.S. manufacturers to about 25 percent of world production. Of the U.S. trade deficit with Japan, $20 billion derives from automobile imports. This figure has been projected to more than double to $46 billion in 1992 (U.S. News & World Report 1991, p. 13).

In 1981, the American automobile industry went to the U.S. government, demanding price protection tection because too many Americans were buying Japanese cars. Threatening the imposition of quotas, the Reagan administration won

a Japanese commitment to limit sales in the form of voluntary export restraints (VERs) for cars (Lawrence 1991; Denzau 1988). In addition, car imports have been subject to a quota since April 1981 and compact trucks have been subject to an ad valorem tariff of 25 percent since August 1980 (Feenstra 1988).

Because of these protectionist barriers, the Japanese have been manufacturing larger, more expensive luxury cars. The resulting price increases for cars sold in the U.S. have been estimated to have cost American consumers an additional $10-15 billion from 1982 to 1985 alone (Crandall 1987). Foreign economy cars have taken their toll on American taxpayers who have had to support hundred of thousands of families through trade adjustment assistance or some other form of welfare because of jobs lost in the automobile and supplier industries to imports (Olnek 1984).

Brazil and Mexico bar the importation of Japanese made cars. Argentina imposes an 85 percent duty. France combines an 11 percent duty with a 3 percent market limit. Germany and Canada levy 11 and 14 percent duty respectively. Great Britain links an 11 percent duty with an 11 percent market limit. The U.S., in contrast, imposes only a 3 percent duty and allows Japanese car makers to displace the bellwether American automobile industry. How does Japan do it? It employs a combination of rebating commodity taxes on car exports, below market interest rate loans, an export subsidies. Japanese cars enjoy a price advantage of $1,500 to $2,000 over comparable domestic models, despite shipping costs and duties.

As a result of his competitive pressure, many parts of American cars are now imported from foreign nations. If the U.S. automobile industry is allowed to continue its dramatic shrinkage without any further government intervention, the repercussions will be felt throughout the American economy. Japan's car exports to the U.S. are currently limited to 2.3 million units a year. The United Auto Workers now seek to reduce the annual limit to 1.3 million units (Lawrence 1991). The Federal government should support the union request and further restrict Japanese imports because U.S. made cars are not granted equal access to the Japanese market.

The Electronics Industry

The Commerce Department of the United States has warned that the $200 billion a year American electronics industry is losing its edge in the world market and may soon be eclipsed by Japan, together with newly emerging producers such as South Korea (Farnsworth 1990). Although the United States is still the electronics leader, American suppliers have seen their shares of the world market erode rapidly. If current trends continue unabated, Japan will become the world's number one electronics producer and trader within the next two years. Currently, Japan produces approximately half of the world's semiconductors and 80 percent of all dynamic random access memory chips (Economist 1991). This fact is cause for great concern to the United States. The defense industry is relying more and more heavily on advanced electronics. Its progress could be stymied if Japan were to limit access to its electronics. Such a scenario is perfectly plausible in retaliation for U.S. protectionist measures.

The U.S. electronics industry lags behind its Japanese counterpart. Japanese manufacturers charge ahead aggressively by upgrading their facilities, creating ever higher levels of state-of-the-art products, increasing productivity, and lowering their prices (Cateora 1990). An impediment that plagues the U.S. electronics industry is this country's outdated licensing policy that hampers the timely sale of products to foreign markets. According to Jerry Jasinowski, president of the National Association of Manufacturers, outdated control policies are costing U.S. companies $5 to 10 billion a year in lost export sales (McClenshaw 1991). Tektronix providers an example of this handicap. Obtaining its first export license for a high resolution television tube it created took three years, even though the sale was to an allied country. Now, five years after the tube's development, Tektronix, once the sole supplier, has slipped to third place on the world list of producers behind the French and Japanese.

To protect its enormous trade surplus with the U.S., the Japanese government has been reluctant to open its markets to U.S. electronics exporters. By claiming that American made chips did not meet its technical standards, it was able to exclude the U.S. from 70 percent of the Japanese semiconductor market. To level the playing field, U.S. negotiators signed a "chip pact" with the Japanese government which set a fair market price for electronic chips and gives U.S. chip exporters access to the Japanese market.

What is clearly needed is a broad reassessment of U.S. export-import policies that takes into account the fact that this country's economic strength and trade competitiveness are crucial components of its national security as the 21st century nears. Fundamental reform is necessary to enhance U.S. competitiveness in the global market place. License processing should be centralized and a dispute resolution system put in place. Daniel Queyssac, president and CEO of SGS-Thompson Microelectronics, believes that the only way for the U.S. to stay competitive with Japan in semiconductors is to impose a quota: "Our quota should be established to give the Japanese the same percentage of our market that they give to us of their market" (Queyssac 1988). This is sound advice because it suggests an effective bargaining tool that can help force a country to trade fairly with the United States.

The Textile Industry

Over the past few years, the U.S. textile industry has had to operate in a market that has been increasingly disrupted by imports. Imports are growing about six times faster that domestic sales and control 60 percent of the American textile and apparel markets (The New York Times 1990). From 1980 to 1990, real output increased a mere 0.17 percent in the domestic apparel industry while textile industry output rose only 0.02 percent. During this same period, 324,000 apparel industry and 113,000 textile industry jobs were phased out (Industry Week 1990).

The consequences are mind-boggling. America's textile and apparel trade deficit is a staggering $28 billion. Every $1 billion excess of imports over exports has eliminated some 25,000 American jobs (The New York Times 1990). This is deplorable since the U.S. textile and garment industries are the most productive in the world, providing jobs for more than 2 million workers, including more women and members of minorities than any other U.S. industry. An additional 2 million people are employed in related industries. But every day, factories close and jobs are permanently lost to imports from countries that pay workers as little as 16 cents an hour or even employ prison labor on violation of international agreements. Not surprisingly, three quarters of the American public favor legislation to restrict the growth of imports (The New York Times 1990).

Currently, import quotas are applied to textile and clothing items on a country by country basis. What few consumers realize is that "the clothing they are buying today is already costing them more than $250 more per family each year because of existing protection enjoyed by the domestic textile industry. That amounts to a tax requiring retailers to take money out of the pocket of middle-class and lower-middle-class Americans in the form of higher clothing prices so that it can be put into the pockets of those who manage and own domestic textile mills" (Wexner 1990).

In 1957, Japan agreed to voluntarily restrict its exports of fabrics to the United States. Imports from other countries, including Hong Kong, Portugal, Egypt, and India, quickly replaced the Japanese imports. In 1961, the U.S. formed a one-year agreement with other textile exporters, called the Short-Term Agreement on Cotton Textiles. It then extended this agreement from 1962 through 1973, using broader product coverage.

In 1974, the U.S. entered into an agreement with its trading partners, known as the Multi-Fiber Agreement (MFA). This new agreement provided an international framework for negotiating bilateral trade. Since that time, the Multi-Fiber Agreement has been renewed three times, each time covering a wider scope of products and countries. It has been extended through 1991, covering 54 countries. Its goals are to expand and liberalize textile trade and to avoid disruption in import markets. U.S. quotas, authorized by the agreement, have been used almost exclusively against imports from low-wage countries. The MFA has not been successful because the use of the political process to determine market shares for textiles came at a high cost. After more than 30 years of extraordinary protection, U.S. textile producers have had enough time to adjust to import competition and the MFA should be abolished.

Tariffs on the value of imports of textile and apparel rose from 20 percent in 1957 to 30 percent in 1982. The level of production increased, causing the costs and benefits of the trade agreements to increase as well. As a result of protectionism, the domestic prices of textile and apparel rose 24 percent in 1984 above their free trade levels and U.S. production rose 24 percent in the same year. Employment in these industries increased 15 percent as a result of protectionism.

The now defunct Textile Bill of 1990 is the latest attempt of the textile industry to push the United States government toward protectionism for textiles. Instead, protectionists are now depending on textile protection through GATT talks. The latest proposal would loosen restrictions on a third of textile and apparel imports over the next ten years by eliminating the MFA and putting quotas under GATT (Barrett 1991).

GROWTH STRATEGIES

The United States should not close its ports to trade. Trade is needed to promote competition, advance technology, maintain the standard of living, offer buyers wider choice, and enhance relations with other nations. Instead, the U.S. government should develop and enforce trade policies that help the American automobile, electronics, and textile industries compete more effectively. Suggested strategies include:

(1) The government should offer tax incentives on capital investment and research and development for new products such as vehicles using alternate fuels, longer lasting engines and parts, and faster or higher capacity components. Such action encourages and facilitates upgrading of the capital stock and advancement of technology. This results in better performance, improved customer service, greater employment, and lower cost.

(2) U.S. government officials and industrial leaders must continue to push countries like Japan to open their markets and stop protecting their industries by demanding treatment equal to their goods' entry into the U.S.

(3) The government should assist the electronics industry by imposing measures to protect national defense interests. With more and more high tech weaponry being developed and deployed in the battlefield, it is vital that the U.S. not be dependent on foreign industries because of the disappearance of domestic producers. It is thus imperative that the U.S. take the necnecessary actions to safeguard its electronics industry from further erosion by foreign producers.

(4) The U.S. should enforce existing policies like the Multi-Fiber Agreement. It should monitor markets and penalize countries who exceed set quotas. To help the embattled textile industry further, the proposed Textile and Apparel Trade Enforcement Act should be adopted. This will lower the import pene- tration levels and aid in balancing the growth of imports with the growth of demand and the interests of domestic industry.

(5) The U.S. should work to increase the coverage of GATT. Currently, this multilateral agreement covers about 80 percent of world trade in merchandise. However, trade in services, agricultural products, and textiles as well as investment and capital flows are presently excluded. Consequently, GATT only covers 5 to 7 percent of global economic activity (Choate and Linger 1988). GATT's dispute

settlement mechanism also needs some improvement.

(6) The government should encourage and facilitate further licensing agreement and joint ventures between American and foreign companies. Both sides have a great deal to offer to each other in terms of technology and access to markets. With Europe 1992 in the offing, Toyota is in the process of forming close alliances with European partners such as Volkswagen to avoid being shut out. All U.S. car manufacturers have some ties to Japanese counterparts. But they need to be expanded and enhanced. Little cooperation is evident on an international level in other industries to date.

(7) The government should encourage and facilitate the gathering and sharing of industry information to enable benchmarking and enhance productivity and competitiveness. This should include Commerce Department activities to provide market data; arrange meeting with top Japanese government and industry officials and prospective buyers; recommend market development strategies; advise on distributor agreements, joint ventures and investments, and help with problems involving standards, trademarks, and patents (Farnsworth 1991; Gergen 1991).

(8) Where indicated, the government should take strong retaliatory action such as the imposition of countervailing duties to stop the dumping of Japanese minivans in the U.S. (White and Davis 1991). This should, of course, only be a last resort. Negotiations should first be undertaken to resolve disputes peacefully. Agreements have been achieved concerning telecommunications, electronics, and pharmaceuticals during market oriented sector selective talks (Dowd 1989). These talks and others like them help facilitate exports of U.S. goods to other countries.

Free competition and free trade ultimately benefit everybody. The U.S. government should provide support to domestic industry - but not at the expense of the American consumer and taxpayer. Carefully calibrated, protectionism can be a valuable aid to survival and growth and a powerful bargaining chip to open up overseas markets to U.S. made goods.

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MARKETING STRATEGY IN AN INTEGRATED EUROPE: SOME RESEARCH PROPOSITIONS

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Abstract

European Community 1992 (EC92) reforms have created an opportunity to extend marketing strategy concepts and theories to a global context. This paper uses the Miles and Snow typology to hypothesize how U.S. firms might adapt to the changes currently taking place within the framework of the European integration.

Introduction

In the wake of moving toward a single European market, it is generally recognized that firms operating within the EC will be embedded in an environment marked by significant changes. Since "organizations must adapt to their environment in order to survive and prosper" (Hambrick 1982), a key strategic issue for firms within and outside the Community is how to respond and adapt effectively to the changes in Europe as a result of the move to a single market.

Management theorists have adopted two perspectives on how organizations deal with the external environment. First is the environmental determinism perspective (Duncan 1972, Negandhi and Reimann 1973, Lawrence and Lorsch 1967). Under this perspective, the environment is viewed as having a deterministic influence on organization strategies, structures, and processes, i.e., organizations are passive-reactive entities with respect to the external environment (Zeithaml and Zeithaml 1984). The second perspective views organizations as entities that can and do implement strategies to modify environmental conditions in which they operate. This perspective is exemplified by the works of Miles and Snow (1978) and Porter (1979).

Of these perspectives, Miles and Snow's framework has attracted a great deal of attention in the marketing literature (e.g., McDaniel and Kolari, 1987; McKee, Varadarajan and Pride, 1989). Briefly, Miles and Snow (1978) identified a typology of strategic types: prospectors, analyzers, defenders, and reactors. The typology attempts to capture the essence of an organization's response to changing environmental conditions or the rate at which the organization changes its products or markets (McDaniel and Kolari, 1987). The purpose of this paper is to use Miles and Snow's typology to hypothesize how U.S. firms might adapt to the changes currently taking place within the framework of the European integration. EC 92 has created a natural experimental condition within which to extend the Miles and Snow typology. In the following sections, the competitive impact of the EC 92 changes are discussed, followed by several hypotheses about possible strategic responses of firms to the unification of Europe.

The Competitive Impact of a Unified Europe

The European Community's plan to create a single European market by December 31, 1992, will mark the beginning of a new era in the global business environment. The proposed reforms, contained in the 1985 White Paper published by the European Commission, are primarily intended to eliminate trade barriers among the member states of the Community. Some of the proposed reforms, however, could create barriers to entry of goods into the EC. Furthermore, the promise of a single European market with 340 million people, has set off a wave of mergers, acquisitions and strategic alliances, as firms within the EC are "jockeying for position" (Porter 1979) well in advance of December 31, 1992 (Lynch 1990). These developments are certain to change "the rules of the game," and thus, will have a profound impact on the competitive arena in Europe as well as elsewhere. These are discussed in more detail below.

External Barriers Affecting Competition Within the EC

A consequence of EC 92 could be a more, as opposed to a less, protectionist Europe. If "Fortress Europe" does become a reality, as some observers firmly predict, a unified European Community will impose new restrictions on trade between Europe and the rest of the world (Magee 1989). Of the various types of restrictions, the Community's external tariffs, established through negotiations under the rules of the General Agreement on Tariffs and Trade (GATT), will not likely increase. According to the GATT rules, elimination of internal barriers to trade does not justify erecting additional external barriers (Calingaert 1989). However, a number of other measures could serve as potential barriers to entry of goods into the EC.

At present, three forms of import restrictions are imposed by individual countries: quotas, rules of origin and antidumping policies. With the creation of a single market, national controls will have to be abolished in favor of EC-wide restrictions. In fact, the European Court has already supported new import quotas, thanks to the efforts of powerful national and industrial lobbies in industries ranging from agriculture to electronics to insurance (Wolfe 1991). These and similar developments will undoubtedly limit access to some EC markets for two reasons. First, there is no guarantee that the intended EC-wide restrictions will be at the same level of protection as those existing at national level. Second, since some EC members do not currently maintain any import restriction, establishment of EC-wide controls will certainly make these markets less accessible than before (Calingaert 1989). In short, realization of "Fortress Europe" will certainly reshape the competitive conditions within the community.

Internal Measures Affecting Competition Within the EC

The competitive environment within the Community is also being dramatically affected by the changes governing trade among the member states. These changes focus on three key areas: physical (e.g., frontier controls), technical (e.g., standards and regulations), and fiscal (e.g., differences in value-added tax).

The competitive effects of removing border controls are difficult to determine. Some argue that, post EC 92 transportation and administrative costs will be drastically reduced, intensifying competition for all firms within the EC (Samiee 1990). Others believe removal of border controls, including those for passports, will have more of a psychological effect than economic impact, i.e., persuade various nationalities to think of themselves and conduct their business as citizens of a United States of Europe (Anderson 1989).

A much more significant change affecting competition, is the harmonization of technical standards. This category includes standards and regulation, public procurement, movement of individuals, financial services, transportation services, new technologies, capital controls and differences in company laws. While a detailed discussion of the impact of the proposed changes in each of these areas is beyond the scope of this paper, two brief examples will be discussed here. A more detailed discussion can be found in Quelch, Buzzell and Salama (1990).

Consider the restrictions on the movement of capital among the EC countries. Once the remaining controls are removed (targeted for 1995), firms will be able to move capital in, out, and around the EC (Calingaert 1989). Public procurement, a $600 billion market, has always been limited to domestic suppliers, with the exception of aerospace which is already pan-European. This limitation has resulted in higher costs, higher prices, and inefficient industries due to absence of competition and the limited size of the market available to them (Anderson 1989). Liberalization of public procurement will bring substantial change to the structure and cost levels of industries affected, with the net result being intensified competition among firms within the EC (Calingaert 1989).

Lastly, the harmonization of fiscal barriers to trade such as value-added tax and excise duties will diminish differences in national price structures. Furthermore, fiscal harmonization efforts will have the indirect impact on the competitive conditions as they assist in removing other barriers. For example, approximation of value-added tax rate is expected to eliminate fear of cross-border shopping and smuggling among national governments, and hence, facilitate removal of all frontier controls (Anderson 1989).

Industry Consolidation and Customer Concentration

With the prospect of a single internal market on the horizon, a wave of "merger mania" is sweeping across Europe. The number of mergers and acquisitions in EC countries grew from 117 in 1983 to 450 in 1988 (Quelch, Buzzell and Salama 1990). The trend is continuing in a wide variety of industries ranging from industrial motors and machine tools (e.g., merger of Sweden's ASEA and Switzerland's Brown-Bovieri) to food and consumer nondurables (e.g., Nestle's acquisition of Rowntree of Great Britain and Buitoni of Italy) to high technology products, computers, and consumer electronics (e.g., Philips linkup with Sun Microsystems) (Lei 1990).

A large number of industries are currently undergoing significant restructuring through mergers and acquisitions. Consolidation is also taking place within companies as manufacturing units and distribution outlets are being combined into fewer, larger facilities. Furthermore, strategic alliances are being formed across Europe through licensing of technology and distribution agreements tied to a joint venture. The restructuring of industries through mergers and acquisitions and strategic alliances is increasing the level of industry concentration approaching those of the United States, making the "shake out" process quite painful(Quelch, Buzzell and Salama 1990).

Industry consolidation means increased concentration among sellers as well as buyers. This is certainly the case in business-to-business marketing. In response to their suppliers' increased concentration, wholesalers and retailers are likely to seek mergers and acquisitions to enhance their own bargaining power. Already, a series of cooperative arrangements, cross-border alliances, acquisitions, and joint ventures have been announced among European retailers and wholesalers (Quelch, Buzzell and Salama 1990).

What is clear is that the "rules of the game" are being changed and that post EC 92 competitive environment will be significantly different. The emerging competi-

tive conditions call for strategic adaptation on part of the firms in or outside the EC, whether they be European, American, Japanese or others. Are certain types of firms more or less likely to pursue certain marketing strategies in a unified Europe? What are the differences in strategies that might be adopted? Can certain strategic responses to EC 92 be uniquely identified with Miles and Snow's strategic types? The remainder of this paper focuses on formulating tentative responses to these questions utilizing Miles and Snow's typology.

The Miles and Snow Typology as a Framework to Predict Corporate Strategic Response in EC 92

Miles and Snow (1978) developed a typology of firms based on the firm's strategic behavior in the face of environmental changes. The strategic types of Miles and Snow (prospectors, defenders, analyzers, and reactors) are assumed to form a hierarchical order of increasing adaptive capability (degree of proactive/reactive approach) to environmental changes. Our basic premise derives from their conclusion that companies within each type will tend to perpetuate the strategies, i.e., prospectors will tend to continue prospecting and defenders will tend to continue defending. In other words, companies having developed a set of response mechanisms for dealing with environmental shifts in the domestic market will also be consistent and exhibit these same inclinations in the changes in international markets.

The Miles and Snow typology has been studied extensively in the domestic environment, but, has not been empirically extended to the international environment. The following discussion provides support for a set of propositions based on the Miles and Snow typology regarding strategic adaptations of companies in response to the developments in Europe toward a unified market. As a type, reactors have not shown any clear strategic orientation and have, therefore, been excluded from the discussion.

Threat or opportunity

Prospectors and analyzers develop a strong market orientation by researching and communicating with the market in an attempt to capitalize on emerging market opportunities. Whereas, defenders lack a capability to sense and respond to market changes and tend to maintain organizational status quo despite environmental changes (Miles and Snow 1978). In general, prospectors are frequently the creators of change in their industries and analyzers are avid followers of change. Change is treated cautiously by defenders and, therefore, decisions in response to changes in the environment are very considered. Thus:

> H 1: Defenders will perceive EC 92 as a threat while analyzers and prospectors will perceive EC 92 as an opportunity.

Environmental Monitoring and Market Research

In order to identify new areas of opportunity, prospectors maintain a wide scope of monitoring activities. Miles and Snow (1978) proposed that defenders being interested in only a limited segment of the market would be relatively unconcerned about market research activities. McDaniel and Kolari (1987) confirmed that prospectors engage in wide environmental scanning, emphasized computerized customer information systems, conducting higher levels of market research activities relative to defenders. Hence:

> H 2: Prospectors and Analyzers will engage in market research activities in a unified Europe to a greater extent than Defenders.

Product Strategies

A key dimension of the Miles and Snow typology is the extent to which new product/markets are pursued. According to Miles and Snow (1978), "... product development in a defender is usually a simple extension of the current product line or an expansion into clearly related areas." On the other hand, "... the prospector's prime capability is that of finding and exploiting new product and market opportunities."

Miles and Snow (1978), Snow and Hambrick (1980), Hambrick (1982) and McDaniel and Kolari (1987) reported that new product development activity in prospector organizations was high, while defender organizations showed low levels of new product development activity. Prospectors develop distinctive competencies through product research and introduction (Miles and Snow, 1978; Snow and Hrebiniak, 1980). Hambrick (1983) found that these types of firms devoted a higher amount of resources for new product development efforts. Product-mix breadth in prospector organizations is broader than in defender organizations (Miles and Snow (1978). These findings suggest that:

> H 3: Analyzers and prospectors will be more likely than defenders to pursue completely new product/markets through mergers, acquisitions and the like within the EC.

H 4: In response to EC 92, Analyzers and Prospectors will place more emphasis on product R&D than will Defenders.

Pricing Strategies

Miles and Snow (1978) claimed that defenders direct their attention toward reducing manufacturing and distribution costs so that they are competitive on a price basis. Empirical results from the Hambrick (1983) study were mixed regarding relative price strategies of the four types across industries. McDaniel and Kolari (1987) found that the overall pricing importance was high for defenders, prospectors and analyzers. They further pointed out that if prospectors realize that reducing price is the most effective strategy to exploit a new market opportunity, then, prospectors, being relatively more interested in market development than defenders, are likely to also compete on price. Thus, it appears that pricing as an element of strategy in various types of firms is a function of the competitive situation faced by each organization and that a consistent pattern for each type of firm cannot clearly be identified. Therefore,

H 5: In anticipation of an integrated Europe, Defenders, Analyzers and Prospectors will place equal importance on price and introduce changes in their pricing strategy as they see fit.

Distribution Strategies

Prospectors being characterized as innovators and leaders in creating change in their respective industries, are more likely to experiment with new strategies in distribution. On the other hand, defenders try to improve existing systems by concentrating on delivery and service (Miles and Snow 1978). Hambrick's (1983) finding that defenders were more forward integrated than were prospectors, suggested that these types of firms handled their own selling, warehousing, and distribution because, they probably anticipated few changes in their domains. McDaniel and Kolari (1987) reported that the importance of location and distribution innovations were high for defenders, prospectors and analyzers. Hence:

H 6: Analyzers and Prospectors will introduce more changes and innovations in their distribution network than Defenders in an integrated Europe.

Promotion Strategies

Miles and Snow (1978) suggest that prospectors recognize the importance of marketing and place considerable emphasis on promotion. Prospectors devote a greater amount of resources toward motivating, informing, and educating their sales forces and customers (Hambrick 1983). McDaniel and Kolari (1987) also reported that prospectors and analyzers emphasized personal selling and sales management in promoting their products. Interestingly, they also found that prospectors and analyzers placed greater importance on direct mail advertising than did defenders.

H 7: Analyzers and Prospectors will place more emphasis on promotion in the wake of EC 92 reforms than Defenders.

Concluding Remarks

With the emergence of a single European market, the global marketplace will have changed dramatically with significant implications for global marketers. Depending on the reference point, companies may view the changes as either a threat or an opportunity. Firms within and outside Europe will have to make strategic adaptations as they consider their involvement in what will be the largest consumer market in the world.

The Miles and Snow typology is well suited to predicting the strategic response of firms and their adaptation to environmental uncertainty. Not all companies adapt to changes in the environment in the same way. Defenders are probably not likely to be proactive in their adaptation to the changes in the European market. Indeed, it is probable that defenders are not as aware of the developments in Europe as are prospectors and analyzers, because defenders firms do not perform the extensive environmental monitoring and market research that prospectors and analyzers do. Prospectors, more than analyzers are likely to be proactive in their adaptation to the developments in Europe. Prospectors are most likely to be innovative in product development, distribution strategies, and in promotional methods.

The changes in the European marketplace as a result of EC 92, presents a unique situation for the application of the Miles and Snow typology. Examining these research propositions will extend the generalizability of their work and provide additional empirical support to this framework to predict corporate strategic response.

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A COMPARISON OF AMERICAN AND NEW ZEALAND CONSUMER PERCEPTIONS OF SEX ROLE PORTRAYALS IN ADVERTISING

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ABSTRACT

Consumer perceptions of their sex role portrayals in advertising have been investigated in the United States since the early 1970s. However, few studies have attempted to extend this research into cross-cultural settings. This study compares the perceptions of American and New Zealand business students concerning their role portrayals in advertising. The findings indicate that: 1) New Zealand male and female business students are more critical of their role portrayals than their American counterparts, 2) New Zealand female business students were found to be significantly more critical than New Zealand male students, and 3) female business students from both countries were more critical than male students. These findings suggest that New Zealand females are not satisfied with their role portrayals in advertising. Companies advertising in New Zealand may need to be more sensitive to the perceptions of female consumers to avoid the risk of alienation and potential negative market actions.

INTRODUCTION

The perceptions of consumers (particularly female) regarding their role portrayals in advertising has been an active area for study since the early 1970s. The study by Courtney and Lockeretz in 1971 which first raised the issue found not only a great disparity between men and women in depictions of working roles in ads, but also a heavy use of sexual stereotyping for women (i.e., the woman belongs in the home, women do not make important decisions, women are seen by men as "sex objects," and women are dependent upon men). As a result of this type of depiction of women by advertisers in the United States, feminist activists have attacked the advertising industry by claiming the dignity of women has been repeatedly violated (Kilbourne 1987; Freedman 1986).

In Jean Kilbourne's 1987 Cambridge Documentaries film, "Still Killing Us Softly," advertisers are criticized for fostering: 1) the glorification of violence against women; 2) the unrealistic inferiority of anything less than "ideal beauty;" 3) women's inferiority to men; and 4) an increased emphasis on women as sex objects. According to Ferrante, et al (1988), advertisers in the United States are still providing the public with a distorted view of women in society.

As a result of the sensitive nature of this problem, the portrayal of women in American advertising has been the focus of a number of studies over the past two decades (D'Amico and Hummel 1980; Kerin, Lundstrom and Sciglimpaglia 1980; Lysonski 1983; Soley and Kurzbard 1986; Weiss 1972). Even though some perceived improvements in female role portrayals by advertisers was evidenced in the 1970's (see Schneider and Schneider 1979), the use of some traditional female stereotypes (women shown as sex objects, as dependent upon men, and as homemakers) has continued through the 1980s and into the 1990s (Ford, LaTour and Lundstrom 1991; LaTour 1990; Loudon and Della Bitta 1988; and Soley and Reid 1988).

A comprehensive review by Kerin, et al (1980) predicted the 1980s would witness advertisers making greater use of role blending (scenes in which no sex dominates), role switching (purchase or use of product is portrayed by persons of the opposite sex of the stereotype) and dual roles (portrayal of women in both traditional and non-traditional roles simultaneously). Recent content analyses (May and Brady 1990; Ferrante et. al. 1988; Soley and Kurzbard 1986; Lysonski 1983; D'Amico and Hummel 1980) indicate that advertisers have made changes to improve the portrayal of women in ads, but the use of stereotypical female portrayals (e.g., overt sex object roles) may have actually increased (Soley and Kurzbard 1986).

Ortner (1974) posited that the subordination of females to males is a universal cultural expectation. It would be reasonable to expect that this subordination would be seen in the role portrayals of women as opposed to men in different cultures. The extension of the literature into the international environment appears to bear this phenomenon out even though the numbers of studies are limited.

One of the first role portrayal studies which appeared examined advertising portrayals of men and women in Australia (Edgar and McPhee 1974). The authors found, in a rather unsophisticated study, that women were hardly ever portrayed as working, older, single, divorced or basically unhappy with their roles. The

implication from this study was that women were portrayed even less favorably in Australia than in the United States. Marquez (1975) examined male and female role portrayals in Philippine advertising. This content analysis concluded that Philippine advertisers were guilty of a disparity of work-related role portrayals that followed a more Western model for advertising than a Philippine cultural model. A study by Douglas (1976) examined working and non-working wives in the U.S. and France and their perceptions of their roles and consumer stereotypes. While this study found a disparity in role perceptions, however, it did not focus on specific advertising content.

One study (Lysonski 1985) looked at changes over time in British advertisements in 15 magazines between 1976/77 and 1982/83. This investigation found that an improvement in portrayals of women in advertisements had occurred in this 6-year period. Specifically, there was less incidence of women being depicted as dependent upon men, however, women were portrayed less frequently as career-oriented and in non-traditional roles. Lysonski's major conclusion was that male and female stereotype images continued to permeate British advertisements. This research indicates that there is a serious question as to whether advertisers have adapted their sex role depictions to keep up with societal changes. This was a similar conclusion in American research on the same topic (Ford, LaTour and Lundstrom 1991).

An excellent recent comparative study by Gilly (1988) compared sex role portrayals in television ads in the U.S., Australia and Mexico. She found that the Australian ads were superior to the American and Mexican ads in terms of their minimization of sex role differences. This would indicate a significant improvement in ad role portrayals from the time of the Edgar and McPhee study (1974). Given this finding, it would be expected that Australian consumers would be less critical of their role portrayals in advertising than Americans or Mexicans.

PURPOSE OF THE STUDY

Because of the lack of empirical data that examines role portrayals across cultures, this comparative study was conducted. The purpose of this study was to compare the general perceptions of consumers in the U.S. and New Zealand regarding their role portrayals in advertising.

The research questions examined were as follows:

1) are New Zealanders as critical of their role portrayals as Americans?

2) are New Zealand females as critical as American females of their role portrayals

3) are New Zealand males as critical of their role portrayals as American males?

4) are New Zealand females more critical of their role portrayals than New Zealand males?

5) are American females more critical of their role portrayals than American males?

Most American studies relating to this topic have found that American females have been more critical of their role portrayals than American males, and content analyses indicate that advertisers have attempted to make changes to alleviate this criticism. This study attempts to extend this research into a cross-cultural comparative framework to see if similar perceptions exist in other areas of the world.

METHODOLOGY

The survey instrument used to collect the data was identical to the one used by Lundstrom and Sciglimpaglia in their 1977 study. The questionnaire, entitled "Advertising Opinion Survey," contains 17 attitudinal statements (see Exhibit 1) previously employed to measure: perceived advertising role portrayals, company image of firms using such practices, intention to buy products of such firms, and selected demographic characteristics. These items were measured on a seven-point semantic differential scale with the anchors being 1-Strongly Disagree and 7-Strongly Agree.

The sample respondents were business students at comparable Universities in major meteropolitan areas of the Mid-Atlantic region of the United States and the Northern Island of New Zealand. Business students were polled primarily for convenience. However, business students are current consumers as well as potential business managers. These conditions were deemed acceptable for this pilot study. One hundred students completed the survey instrument in both locations with 46 males and 54 females participating in the American sample and 44 males and 56 females participating in the New Zealand sample.

RESULTS

The first research question addresses whether American consumers are more critical of their role portrayals in advertising than New Zealanders. The results are provided in Exhibit 1. Significant differences were found for five of the seventeen items. Item 2 ("Ads suggest that women are fundamentally dependent upon men") showed significantly less agreement for the Americans than the New Zealanders. If it is reasonable to assume that the cultures are similar between New Zealand and Australia, this would be expected from the work of Edgar and McPhee (1974) but not from what was found in 1988 by Gilly. There was also significantly more agreement by the New Zealanders that ads treat women mainly as sex objects (item 4). This same trend is evidenced in the results for items 8 ("Ads suggest that women don't do important things"), 9 ("Ads suggest that a woman's place is in the home"), and 10 ("I'm more sensitive to the portrayal of women in advertising than I used to be").

EXHIBIT 1

A Comparison of the Attitudes of American and New Zealand Business Students Toward Sex Role Portrayal, Company Image and Purchase Intention

ATTITUDES TOWARD ROLE PORTRAYALS	U.S. N=100 Δ	MEAN RESPONSE TO STATEMENT * 1 2 3 4 5 6 7	New Zealand N=100 ▲
1. Ads which I see show women as they really are	2.85		2.69
2. Ads suggest that women are fundamentally dependent on men	3.80 a		3.80
3. Ads which I see show men as they really are	2.88		2.85
4. Ads treat women mainly as "sex objects"	4.32 a		4.70
5. Ads which I see accurately portray women in most of their daily activities	3.26		3.11
6. Ads suggest that women make important decisions	3.93		3.63
7. Ads which I see accurately portray men in most of their daily activities	3.60		3.58
8. Ads suggest that women don't do important things	3.58 a		3.95
9. Ads suggest that a woman's place is in the home	3.39 b		4.26
10. I'm more sensitive to the portrayal of women in advertising than I used to be	4.33 b		5.14
11. I find the portrayal of women in advertising to be offensive	3.63		3.89
12. Overall, I believe that the portrayal of women in advertising is changing for the better	4.37		4.19
EFFECT ON COMPANY IMAGE			
13. Companies that portray women offensively in their advertising are more likely to discriminate against women and other minorities in job promotion and advancement, compared with other companies in the same business or industry	3.82		4.01
14. I believe that how women are portrayed in ads merely reflects the general attitude of that company toward women's place in society	3.80		3.79
EFFECT ON PURCHASE INTENTION			
15. If a new product is introduced with ads that I find offensive, I might still buy it if it offers me benefits which I find attractive	4.60		4.31
16. If a new product or service which I use adopts an ad campaign which I find offensive, I'll discontinue using it	3.51		3.63
17. Even though I may see an ad which is offensive for one product, I would continue to purchase other products that I have been using from the same company	4.83		4.56

* In the profile, 7 = Strongly Agree and 1 = Strongly Disagree
a: p = .01
b: p = .001

The second research question compares the perceptions of American and New Zealand females. Based upon previous literature, it was expected that a higher level of criticism would be exhibited by the American females than the New Zealand females, but this was not the case. Exhibit 2 shows the results of the comparison. The New Zealand females were found to be significantly more in agreement for five items with negative connotations ("Ads suggest that women are fundamentally dependent upon men," "Ads treat women mainly as "sex objects," "Ads suggest that women don't do important things," "Ads suggest that a woman's place is in the home," and "I'm more sensitive to the portrayal of women in advertising than I used to be") and significantly less in agreement for two items with positive connotations ("Ads suggest that women make important decisions" and "If a new product is introduced with ads that I find offensive, I might still buy it if it offers me benefits which I find attractive").

EXHIBIT 2

A Comparison of the Attitudes of American and New Zealand Female Business Students Toward Sex Role Portrayal, Company Image and Purchase Intention

ATTITUDES TOWARD ROLE PORTRAYALS	U.S. N=54 Δ	MEAN RESPONSE TO STATEMENT * 1 2 3 4 5 6 7	New Zealand N=56 ▲
1. Ads which I see show women as they really are	2.78		2.73
2. Ads suggest that women are fundamentally dependent on men	3.65 a		3.95
3. Ads which I see show men as they really are	3.00		3.00
4. Ads treat women mainly as "sex objects"	4.23 b		4.75
5. Ads which I see accurately portray women in most of their daily activities	3.13		3.21
6. Ads suggest that women make important decisions	3.82 a		3.41
7. Ads which I see accurately portray men in most of their daily activities	3.59		3.76
8. Ads suggest that women don't do important things	3.84 b		4.29
9. Ads suggest that a woman's place is in the home	3.80 b		4.41
10. I'm more sensitive to the portrayal of women in advertising than I used to be	4.71 b		5.31
11. I find the portrayal of women in advertising to be offensive	4.22		4.16
12. Overall, I believe that the portrayal of women in advertising is changing for the better	4.38		4.25
EFFECT ON COMPANY IMAGE			
13. Companies that portray women offensively in their advertising are more likely to discriminate against women and other minorities in job promotion and advancement, compared with other companies in the same business or industry	4.18		4.39
14. I believe that how women are portrayed in ads merely reflects the general attitude of that company toward women's place in society	4.23		4.24
EFFECT ON PURCHASE INTENTION			
15. If a new product is introduced with ads that I find offensive, I might still buy it if it offers me benefits which I find attractive	4.18 b		3.75
16. If a new product or service which I use adopts an ad campaign which I find offensive, I'll discontinue using it	4.00		4.13
17. Even though I may see an ad which is offensive for one product, I would continue to purchase other products that I have been using from the same company	4.68		4.36

* In the profile, 7 = Strongly Agree and 1 = Strongly Disagree
a: p = .01
b: p = .001

The third research question involves a comparison of the perceptions of American and New Zealand males regarding sex role portrayals in advertising. Exhibit 3 indicates that there is again greater criticism on the part of the New Zealanders than the Americans. In this case the New Zealand males are significantly more in agreement with five items with negative connotations ("Ads suggest that women are fundamentally dependent on men," Ads suggest that women don't do important things," "Ads suggest that a woman's place is in the home," I'm more sensitive to the portrayal of women in advertising than I used to be," and "I find the portrayal of women in advertising to be offensive") and significantly less in agreement with three items with positive connotations ("Ads which I see show women as they really are," "Ads which I see show men as they really are," "Ads which I see

accurately portray men in most of their daily activities").

EXHIBIT 3

A Comparison of the Attitudes of American and New Zealand Male Business Students Toward Sex Role Portrayal, Company Image and Purchase Intention

ATTITUDES TOWARD ROLE PORTRAYALS	U.S. N=46 △	MEAN RESPONSE TO STATEMENT * 1 2 3 4 5 6 7	New Zealand N=44 ▲
1 Ads which I see show women as they really are	3.16 [b]		2.64
2 Ads suggest that women are fundamentally dependent on men	3.07 [b]		3.61
3 Ads which I see show men as they really are	2.95 [a]		2.65
4 Ads treat women mainly as "sex objects"	4.41		4.64
5 Ads which I see accurately portray women in most of their daily activities	3.44 [b]		2.98
6 Ads suggest that women make important decisions	4.07		3.91
7 Ads which I see accurately portray men in most of their daily activities	3.60		3.31
8 Ads suggest that women don't do important things	3.05 [b]		3.52
9 Ads suggest that a woman's place is in the home	2.86 [b]		4.07
10 I'm more sensitive to the portrayal of women in advertising than I used to be	3.84 [b]		4.93
11 I find the portrayal of women in advertising to be offensive	2.88 [b]		3.55
12 Overall, I believe that the portrayal of women in advertising is changing for the better	4.37		4.11
EFFECT ON COMPANY IMAGE			
13 Companies that portray women offensively in their advertising are more likely to discriminate against women and other minorities in job promotion and advancement, compared with other companies in the same business or industry	3.35		3.55
14 I believe that how women are portrayed in ads merely reflects the general attitude of that company toward women's place in society	3.21		3.23
EFFECT ON PURCHASE INTENTION			
15 If a new product is introduced with ads that I find offensive, I might still buy it if it offers me benefits which I find attractive	5.14		5.12
16 If a new product or service which I use adopts an ad campaign which I find offensive, I'll discontinue using it	2.86		2.98
17 Even though I may see an ad which is offensive for one product, I would continue to purchase other products that I have been using from the same company	5.03		4.82

* In the profile, 7 = Strongly Agree and 1 = Strongly Disagree
a p = .01
b p = .001

The fourth research question examines the differences between the perceptions of New Zealand males and females regarding role portrayals in advertising. The results of this comparison are provided in Exhibit 4. Research question 1 showed that there were significant differences between the New Zealanders and Americans in their perceptions, and this question probed the New Zealand sample population more deeply to examine gender differences in perception. In this case thirteen items out of seventeen were significantly different between the two populations. New Zealand females were found to be significantly more critical of female role portrayals than males were (i.e., more agreement on items 2, 8, 9, 10, and 11 and less agreement on item 6), significantly less critical of male role portrayals than the males were (i.e., more agreement on items 3 and 7), had significantly more negative perceptions of effect on company image (i.e., more agreement on items 13 and 14), and had significantly more negative perceptions of effects on purchase intention (i.e., greater agreement on item 16 and less agreement on items 15 and 17).

EXHIBIT 4

A Comparison of the Attitudes of New Zealand Male and Female Business Students Toward Sex Role Portrayal, Company Image and Purchase Intention

ATTITUDES TOWARD ROLE PORTRAYALS	New Zealand Male N=44 △	MEAN RESPONSE TO STATEMENT * 1 2 3 4 5 6 7	New Zealand Female N=56 ▲
1 Ads which I see show women as they really are	2.64		2.73
2 Ads suggest that women are fundamentally dependent on men	3.61 [a]		3.95
3 Ads which I see show men as they really are	2.65 [a]		3.00
4 Ads treat women mainly as "sex objects"	4.64		4.75
5 Ads which I see accurately portray women in most of their daily activities	2.98		3.21
6 Ads suggest that women make important decisions	3.91 [b]		3.41
7 Ads which I see accurately portray men in most of their daily activities	3.31 [a]		3.76
8 Ads suggest that women don't do important things	3.52 [b]		4.29
9 Ads suggest that a woman's place is in the home	4.07 [a]		4.41
10 I'm more sensitive to the portrayal of women in advertising than I used to be	4.93 [b]		5.31
11 I find the portrayal of women in advertising to be offensive	3.55 [b]		4.16
12 Overall, I believe that the portrayal of women in advertising is changing for the better	4.11		4.25
EFFECT ON COMPANY IMAGE			
13 Companies that portray women offensively in their advertising are more likely to discriminate against women and other minorities in job promotion and advancement, compared with other companies in the same business or industry	3.55 [b]		4.39
14 I believe that how women are portrayed in ads merely reflects the general attitude of that company toward women's place in society	3.23 [b]		4.24
EFFECT ON PURCHASE INTENTION			
15 If a new product is introduced with ads that I find offensive, I might still buy it if it offers me benefits which I find attractive	5.12 [b]		3.75
16 If a new product or service which I use adopts an ad campaign which I find offensive, I'll discontinue using it	2.98 [b]		4.13
17 Even though I may see an ad which is offensive for one product, I would continue to purchase other products that I have been using from the same company	4.82 [b]		4.36

* In the profile, 7 = Strongly Agree and 1 = Strongly Disagree
a p = .01
b p = .001

EXHIBIT 5

A Comparison of the Attitudes of American Male and Female Business Students Toward Sex Role Portrayal, Company Image and Purchase Intention

ATTITUDES TOWARD ROLE PORTRAYALS	U.S. Male N=46 △	MEAN RESPONSE TO STATEMENT * 1 2 3 4 5 6 7	U.S. Female N=54 ▲
1 Ads which I see show women as they really are	3.16 [a]		2.78
2 Ads suggest that women are fundamentally dependent on men	3.07 [b]		3.65
3 Ads which I see show men as they really are	2.95		3.00
4 Ads treat women mainly as "sex objects"	4.41		4.23
5 Ads which I see accurately portray women in most of their daily activities	3.44		3.13
6 Ads suggest that women make important decisions	4.07		3.82
7 Ads which I see accurately portray men in most of their daily activities	3.60		3.59
8 Ads suggest that women don't do important things	3.05 [b]		3.84
9 Ads suggest that a woman's place is in the home	2.86 [b]		3.80
10 I'm more sensitive to the portrayal of women in advertising than I used to be	3.84 [b]		4.71
11 I find the portrayal of women in advertising to be offensive	2.88 [b]		4.22
12 Overall, I believe that the portrayal of women in advertising is changing for the better	4.37		4.38
EFFECT ON COMPANY IMAGE			
13 Companies that portray women offensively in their advertising are more likely to discriminate against women and other minorities in job promotion and advancement, compared with other companies in the same business or industry	3.35 [b]		4.18
14 I believe that how women are portrayed in ads merely reflects the general attitude of that company toward women's place in society	3.21 [b]		4.23
EFFECT ON PURCHASE INTENTION			
15 If a new product is introduced with ads that I find offensive, I might still buy it if it offers me benefits which I find attractive	5.14 [b]		4.18
16 If a new product or service which I use adopts an ad campaign which I find offensive, I'll discontinue using it	2.86 [b]		4.00
17 Even though I may see an ad which is offensive for one product, I would continue to purchase other products that I have been using from the same company	5.03 [a]		4.68

* In the profile, 7 = Strongly Agree and 1 = Strongly Disagree
a p = .01
b p = .001

This greater criticism on the part of the females in the sample was also found in the examination of research question 5. American females were found to be significantly more critical of their role portrayals in advertising than American

males. This can be seen in the significantly higher levels of agreement with negative items (items 2, 8, 9, 10, and 11) and the significantly lower levels of agreement on positive item 1. Similar results were found when assessing effect on company image and purchase intention with significantly more agreement with negative items (items 13, 14, and 16) and significantly less agreement with positive items (items 15 and 17).

SUMMARY AND CONCLUSIONS

It would appear from the limited convenience samples that were involved that New Zealand female business students are very critical of their role portrayals in advertisements. Also, New Zealand male business students are less happy with their role portrayals than their female counterparts were. This may indicate that a potentially serious problem exists for companies advertising to New Zealand consumers. Previous studies conducted in the United States have focused on the potential for alienation of women consumers. This same situation could also be happening in New Zealand. Larger and more representative random samples should be obtained to confirm and better understand the extent of this perceptual problem.

While it is difficult to generalize from these findings, it is nonetheless interesting to speculate on what may be fueling these differences. Has the women's movement had an effect upon the perceptions of New Zealanders? Why would New Zealand women be even more critical than American women? What cultural variables may be driving these differences in perceptions? Is it possible that while the work of Gilly (1988) indicates that ad depictions were more even-handed in the neighboring country of Australia, that these particular consumers have not perceived the changes which advertisers have made. This last issue was raised at least for an American sample in the study of Ford, LaTour and Lundstrom (1991).

LIMITATIONS AND SUGGESTIONS FOR FUTURE RESEARCH

Due to the nature of the sample involved, generalizability is limited at best. A random sampling of American and New Zealand consumers from a wide range of demographic categories would be appropriate. Future research should also focus on perceptions related to ads for specific product classes instead of general perceptions relating to advertising.

References available upon request.

PORTRAYAL OF WOMEN IN JAPANESE ADVERTISEMENTS

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Abstract

As U.S. marketers attempt to market their products in Japan, it is prudent for them to understand advertising issues in Japan. An important issue for all advertisers is portrayal of specific groups of consumers in advertising. This study focuses on portrayal of women in Japanese advertising. Content analysis of print advertising reveals that women are portrayed just the same as men, an important finding for U.S advertisers to be cognizant of.

Introduction

With the steady rise in amount of business transactions with Japan, proper targeting of Japanese consumers is important for American marketers. Advertising, as a means of communication about products, is known to play a crucial role in targeting the consumers. For American marketers, advertising appropriately to the Japanese consumers is critical for their success. As one of the basic issues in advertising appropriately to a target market is related to how individuals are shown in an advertisement, it is important for American marketers to understand the nuances of advertising in Japan.

Among other peculiarities, it is prudent for marketers to know how a particular group of consumers is portrayed in advertisements. Specifically, portrayal of women in advertisements has long been a sensitive issue for many marketers in the U.S. (Deveny 1990; Grant 1970; Smith 1970). The limited roles and stereotyping of women in advertising has often been criticized by members of the female liberation movement (Courtney and Lockeretz 1971). From the time of the feminist movement, marketers and media (in the U.S.) have paid increasing attention to the portrayal of women in advertising (Deveny 1990).

The need to appropriately portray women in advertising is especially more critical in an international market (Courtney and Whipple 1983, p. 184). Given the cultural differences between the U.S. and Japanese market, it is imperative for a U.S. marketer to be sensitive to the Japanese values, norms and lifestyles. Recently, several articles have been published in marketing literature comparing the U.S. and Japanese advertisements (e.g., Belk and Pollay 1985; Hong, Muderrisoglu and Zinkhan 1987; Madden, Caballero and Matsukubo 1988; Mueller 1987). A commonality among these investigations is the determination of cultural differences between the U.S. and Japan, and how they are reflected in the advertisements in the two countries. However, the issue of portrayal of women in Japanese advertisements remains unaddressed in literature. The purpose of this study is to develop an understanding of how women are portrayed in Japanese advertisements. Due to its exploratory nature, this study serves as a preliminary examination of the issue of women in Japanese advertising. It is an initial report of an in-depth investigation analyzing the Japanese advertising practices over the years. To provide a foundation for the study, this paper first provides a background on the topic of women in advertising. Next, the review of literature and the hypothesis emanating from the review are presented. This is followed by a discussion of methodology and the results. Finally, the implications for advertising managers are also discussed.

Background

Over the years, academicians, feminists and others have expressed concerns about roles of women in advertising. The underlying premise is that advertising influences society's perception of appropriate sex roles (Gilly 1988). By reflecting certain narrowly defined roles for women, advertising is believed to reinforce the notion that those roles are "proper," "best," or "natural" (Hawkins and Coney 1976). That is, the "improper" depiction of women in advertising is detrimental to the society because it creates or perpetuates misconceptions or stereotypes (Silverstein and Silverstein 1974). Further, an "improper" depiction of women could alienate of one of more groups of consumers (Deveny 1990). Thus, for marketers, it is important to properly depict the women in advertisements.

Sex Roles in Advertisements

Investigations of sex roles in advertisements have been reported by a number of marketing researchers over the years (c.f. Belkaoui and Belkaoui 1976; Courtney and Lockeretz 1971; Ferguson, Kreshel and Tinkham 1990; Gilly 1988; Wagner and Banos 1973). A common finding of these studies is that there is a difference between portrayal of men and women in advertising. For instance, Courtney and Lockeretz (1971) reported that advertising failed to show a true range of women's roles within our society. In fact, the advertisements reflected a number of stereotypes such as, "A women's place is in the home," "Women make important decisions or do important things," "Women are dependent and need men's protection," "Men regard women primarily as sexual objects; they are not interested in women as people."

A study reported a few years later reached a similar conclusion (Belkaoui and Belkaoui 1976) reached. The authors concluded that advertisements had not kept up with the times in portraying women in the wide variety of roles they played in the world (Belkaoui and Belkaoui 1976). Furthermore, in a recent study investigating sex roles in advertising, Gilly (1988) also found differences in the portrayal of the sexes in the U.S. advertisements. The author noted that men were more likely to be portrayed in independent roles whereas women were portrayed in roles relative to others. In addition, in the U.S. advertisements female characters tend to receive advice and male characters tend to give it (Gilly 1988).

It appears from different investigations reported over the last two decades that women are still portrayed in a limited number of roles. Although, advertisers are becoming more cognizant of the wide variety of roles women engage in, and are more alert about their proper portrayal in advertisements than before (Deveny 1990). However, given the rising importance of global business activities by many marketers, the issue of "proper" portrayal of women in advertise-

ments in different countries has become important for marketers. As stated earlier, with the high volume of trade with Japan, it is pertinent for marketers to understand how women are portrayed in Japanese media.

Past Research on Japanese Advertising

To date, the past research on Japanese advertising has identified how the cultural differences between the U.S. and Japan permeate advertising (c.f. Hong, Muderrisoglu, and Zinkhan 1987; Madden, Caballero, and Matsukubo 1986; Mueller 1987). For instance, Madden, Caballero, and Matsukubo (1986) found that the Japanese advertisements were more informative than the U.S. advertisements. Further, the Japanese advertisements provided price information more often than the U.S. advertisements. On the other hand, the U.S. advertisements used special offer information more than the Japanese advertisements.

Similar finding about the informativeness of advertisements was reported by Hong, Muderrisoglu, and Zinkhan (1987). The authors found Japanese advertisements to be more informative than the U.S. advertisements. Additionally, the Japanese advertisements were found to be more emotional than the U.S. advertisements. The greater usage of emotion in Japanese advertisements has also been found by Mueller (1987). In a study designed to discover various appeals used in Japanese advertisements, Mueller (1987) found higher usage of soft-sell appeals than hard-sell appeals.

Moreover, Mueller's (1987) investigation revealed that Japanese advertisements reflected increasing use of appeals similar to those in western cultures. Despite the fact that the Japanese culture is characterized by importance of group consensus and, collectivism in the society (Belk and Pollay 1985), these values were not reflected in the advertisements. On the contrary, Mueller (1987) found greater use of appeals that emphasized individualities of people and their independence from each other. For example, the author noted that the Japanese advertisements encouraged consumers to be "better than others," and to "stand out from the rest."

The finding by Mueller (1987), related to the individualities of people and their independence from each other, has significant ramifications for advertising, in light of the fact that nearly half of women in Japan go to work (Bartos 1989). Moreover, as the beliefs and behaviors of Japanese women are changing significantly (Betushima 1987), it is expected that Japanese advertisements would reflect high degree of equality among men and women.

Methodology

Given that advertising reflects cultural values (Belk and Pollay 1985, Mueller 1987), it is expected that an analysis of current Japanese advertising will permit an assessment of stereotyping of women, if any. The assessment was done via content analysis of Japanese magazines, as it is an appropriate method of analysis to determine the portrayal of consumer groups in advertising (Kassarjian 1977). Further, it was decided to examine magazine advertising in this study. With the objective of detecting stereotyping of women in Japanese advertising, it was necessary to look at general interest magazines rather than specialty magazines. In conformance with the objective, it was thought prudent to include magazines that would be targeted to women as well as to all other readers. Mass circulation magazines of two types were included in this study, one a news magazine directed towards all readers, and the other targeted mainly at women. Specifically, *Shukan Asahi* (news magazine) and *Katei Gaho* (women's magazine) were included in this study. Further support for the selection of these magazines is drawn from the fact that they have been used in the past investigations (Belk and Pollay 1985; Hong, Muderrisoglu and Zinkhan 1987; Mueller 1987). For both the magazines, the most recent issue available was obtained, *Shukan Asahi* (June/July 1991 issue) and *Katei Gaho* (July 1991 issue) for examination.

Two native Japanese students were selected as judges to examine the advertisements. Both the judges independently coded all the advertisements in the two magazines, and were not aware of the purpose of the study. The coding of advertisements done by the two judges was found to have an interjudge reliability of 91%., exceeding the minimum interjudge reliability of 85% suggested by Kassarjian (1977). The coders were instructed to analyze those advertisements that showed person(s) in them. That is, the advertisements without any individuals were not further analyzed for this study pertained to an analysis of portrayal of women. The advertisements were examined for the type of product advertised, the number of advertisements with men, women or children in them, superiority of either gender in the advertisements, and the type of appeals used. The superiority of gender was determined by a person giving advice to another of the opposite sex, or making a decision for the other person, or positioned to provide something (e.g., protection) to the other person.

In addition, the type of appeals used in the advertisements was distinguished into five categories: emotional, rational, fear, humor, and sex. An advertisement was determined to have an emotional appeal if it attempted to satisfy psychological rather than utility needs (Berkman and Gilson 1987, p. 340). On the other hand, if an advertisement contained an appeal to the consumer's practical, utility oriented needs for products and services (Berkman and Gilson 1987, p. 339). If an advertisement would induce some anxiety in a person exposed to the advertisement (Rossiter and Percy 1987, p. 120), it was determined to have a fear appeal. Further, if an advertisement would amuse or cause individuals to chuckle (Sternthal and Craig 1973), it was considered to have a humorous appeal. Finally, if an advertisement contained nude, or partially nude, individuals (Alexander and Judd 1978), it was considered to have a sex appeal.

Results

In all, 198 advertisements were found in the two magazines, with 139 advertisements in *Shukan Asahi* and 59 advertisements in *Katei Gaho*.

As a first step, it was valuable to determine the types of products advertised in the two magazines. As shown in **Table 1**, a wide variety of products are advertised in *Shukan Asahi* and *Katei Gaho*. Grouped in three categories, personal products category included products that would be utilized by consumers on themselves (e.g., jewelry). This category constituted the majority of the advertisements (77.7%), followed by business and household product advertisements. The business category comprised of advertisements

TABLE 1
NUMBER OF ADVERTISEMENTS OF VARIOUS PRODUCTS

Personal		Household		Business	
Type	No.	Type	No.	Type	No.
Jewelry	31	Appliance	6	Hotels	9
Food	27	Furniture	6	Transportation	4
Cosmetics	25	Kitchens	4	Banking	2
Clothing	20	Lights	1	Office Equipment	2
Books	11			Computer Disk	1
Dishes	11			Department Store	1
Alcohol	9			Doctor's Office	1
Medicine	8			Gas Company	1
Leisure	6			Secondary School	1
Magazine	1			Radio Station	1
Pen	1			Restaurant	1
Chopsticks	1				
Toys	1				
Total	154 (77.7%)		18 (9.1%)		26 (13.1%)

that represented business organizations (e-.g., Hotels). Last, the household products category included advertisements for products that would be used in households (e.g., appliances).

Next, it was necessary to determine if a magazine selection bias was present in the content analysis. That is, the relationship between the gender of the people in advertisements and the magazine was investigated to ascertain if either magazine was unduly skewed in the number of advertisements with women. As shown in Table 2, the proportion of men, women, or children in advertisements is not dependent upon the type of magazine (Chi-square=1.63, p>.05). Albeit, women are shown in advertisements more frequently than men or children. In addition, the relationship between product type and the gender in advertisements was also investigated. As shown in Table 3, the type of product advertised is not dependent on the gender of individuals shown in the advertisements (Chi-square=7.81, p>.05).

TABLE 2
GENDER DIFFERENCES IN ADVERTISEMENTS

	Shukan Asahi		Katei Gaho		Total	
	No.	%	No.	%	No.	%
Ads with Men	5	26.3%	16	26.2%	21	26.2%
Ads with Women	12	63.2	43	70.5	55	68.8
Ads with Children	2	10.5	2	3.3	4	5.0
Total	15	100.0	49	100.0	80	100.0

TABLE 3
RELATIONSHIP BETWEEN GENDER IN ADVERTISEMENTS AND TYPE OF PRODUCTS ADVERTISED

Type of Products	Gender in Advertisements			
	Men	Women	Children	Total
Personal	17	47	2	66 (82.5%)
Household	2	4	0	6 (7.5%)
Business	2	4	2	8 (10.0%)
Total	21 (26.3%)	55 (68.7%)	4 (5.0%)	80 (100.0%)

Having ascertained the independence of gender of the individuals in advertisements from the magazine and product types, superiority of either gender in advertisements was investigated. As shown in Table 4, a few advertisements included men as well as women. When men and women were included in an advertisement, neither gender was found to be in any superior role. This finding contrasts with similar research on women in U.S. advertisements. As reported by Gilly (1988), in U.S. advertisements, women characters tend to receive advice and men tend to give it. Unlike the U.S. advertisements, the Japanese advertisements do not appear to position men and women differently.

TABLE 4
GENDER SUPERIORITY IN ADVERTISEMENTS

	Shukan Asahi		Katei Gaho		Total	
	No.	%	No.	%	No.	%
Men in Superior role	--	--	--	--	--	--
Women in Superior Role	--	--	--	--	--	--
Neither Gender in Superior Role	2		10		12	

The advertisements were also distinguished on the basis of different appeals used, and compared with the inclusion of men and women in them. As shown in Table 5, results indicate that there is no relationship between men, women, or children and the type of appeal used (Chi-square=10.17, p>.05). Again, women were shown in advertisements more often than men or children. Moreover, use of sex appeal is infrequent compared to that of rational and emotional appeals, with the use of fear appeals almost nonexistent.

TABLE 5
RELATIONSHIP BETWEEN GENDER IN ADVERTISEMENTS AND TYPE OF APPEAL

Gender in Advertisements	Type of Appeal					
	Emotional	Fear	Humor	Rational	Sex	Total
Number of Men	8	1	0	10	2	21 (26.3%)
Number of Women	28	0	4	15	8	55 (68.8%)
Number of Children	1	0	0	3	0	4 (5.0%)
Total	37 (46.3%)	1 (1.3%)	4 (5.0%)	28 (35.0%)	10 (12.5%)	80 (100%)

Discussion

The results provide an interesting look at the Japanese advertising and, specifically on portrayal of women. Indeed, any implications of these results must be accepted in light of the limitations of the study.

Data were collected from just one issue of two Japanese magazines. Therefore, the number of advertisements analyzed was relatively small. However, the particular issues of *Shukan Asahi* and *Katei Gaho* were collected without any specific reason. That is, the particular issues would be as good as any other issues. Although, it is acknowledged that more issues of magazines could provide a broad spectrum of advertising in those magazines.

Of the 198 advertisements collected from the magazines , less than half contained an individual in them. That is, many advertisements simply provided information about the product without relying on a human figure to lend support to the product. The advertisements with an individual in them show predominance of women and not men. As *Katei Gaho* is a magazine positioned to women, it is not very surprising. However, what is of particular interest is that *Shukan Asahi*, a general news magazine included more advertisements with women than men. Evidently, the more common approach is to include a female spokesperson in advertising. Further, when men and women both are shown in an advertisement, neither appears in any superior role. Although, there were only a few advertisements that contained both the sexes, there was no advertisement that displayed men or women giving advice to the other, or making decision for the other person. As Betushima (1987) noted, the changing beliefs and behaviors of Japanese women transcend in advertising, in that the traditional dependency of women on men is not exhibited in advertising. Clearly, it would be prudent for the U.S. advertisers to ensure that both sexes are portrayed equally, if the advertisement contained both the sexes.

The results indicate that the Japanese advertising is frequently based on emotional appeals. While confirming a similar prior finding by Mueller (1987), it suggests that advertisers may find appealing to consumers' psychological needs beneficial in reaching them. Indeed, as Mueller (1987) also suggested, an emphasis on individualities of people and their independence from each other may serve as a conduit to appeal to the Japanese consumers' psychological needs. The results would also caution advertisers in using fear appeal as it does not appear to be used as much as other appeals.

Several research issues generate from this study for future investigations. Indeed, the study could be expanded by including more issues of the two magazines. Also, other Japanese magazines could be looked at, to fully capture the portrayal of women in Japanese magazines. Also, a comparison with the U.S. magazines could shed additional light on the issue of portrayal of women in advertising. While further examination of Women in Japanese and U.S. magazines advertising is currently being pursued by the authors, it may be worthwhile to include other media, such as television, in the investigation.

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STRATEGIC BUSINESS ALLIANCES: CANADIAN MOTIVES AND OBJECTIVES IN ASIA PACIFIC

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Abstract

Canadian strategic business alliances in Asia Pacific are mostly market oriented. While most Canadian companies do not mind having the real terms of the alliance go beyond the legal agreement and some vagueness and flexibility in the agreement, they believe that it is important to have a common goal and an understanding of each other's objectives.

Introduction

A strategic business alliance (SBA) can be defined as a long term cooperative business agreement between two or more companies to pool, exchange and/or integrate specified company resources for achieving some agreed objectives. Within this broad definition lies a vast array of arrangements ranging from almost an arm's length vendor-customer relationship to an affiliation just short of a complete merger. These include multi-purpose joint ventures, limited purpose joint ventures, cross licensing, reciprocal distribution and promotion arrangements, technology swaps, information exchange agreements, collaborative research programs, sharing of complementary assets, and product development and servicing contracts.

Strategic business alliances have grown exponentially in number in recent years, and are now probably the most popular mode for global market development. In a Business International survey on 419 U.S. firms, SBAs were used by over half (51.2%) of the companies for world wide expansion. This proportion exceeded by a significant margin those of the other modes such as acquisitions (36.3%), direct exporting (34.8%), new product introduction (34.2%) and start-up (18.8%). In the 1980s, U.S. companies formed over 2,000 alliances with European companies alone (Kraar 1989).

While the proliferation of SBAs has definitely been enhanced by improved communications and computational power linking geographically dispersed companies, the underlying driving force is unquestionably the realization of their necessity and benefits. The world market of today is characterised by a move towards globalization, escalating capital requirements for product research and development, increased sophistication of new products, rapid technological obsolescence which shortens product life cycles and the formation of regional trading blocs with artificial barriers to market entry. These trends, being most obvious in high-tech industries such as pharmaceuticals, computers, consumer electronics and biotechnology products are forcing companies to re-examine traditional methods of market entry and to re-configurate their positioning strategies. Inevitably, they come to realize that no matter how strong and resourceful is a company, there is no way it can have competitive advantage in each and every step of the value added process (financing, production, marketing) in all national markets, nor can it maintain a cutting edge in all the different critical technologies required for the development, production and marketing of today's sophisticated products. Moreover, there are tremendous and often prohibitive costs, risks and time required to establish research, manufacturing and distribution facilities. Thus, SBAs have become the logical means for rationalizing global operations and to maintain a company's competitive position.

Cooperation between companies in the form of joint ventures and distrbution agreements have existed for many years, but the current wave of SBA formation depicts something qualitatively very different. While traditional corporate linkages tend to take place in areas peripheral to the partner companies' core skills and competitive strength and are formed mostly by non-competing companies, recent SBAs are often formed by hither-to rivalling companies in order to enhance their respective capabilities and competitive position in non-competing lines of operations or markets. Yet, at the same time, they may face each other as competitors in different lines of operation or markets. Notable examples are the alliances formed by General Motors and Toyota, Siemens and Philips, Canon and Kodak, Thomson and JVC, Apple and Canon, Honeywell and NEC, Texas Instruments and Hitachi, and most recently, I.B.M. and Apple. But apart from these alliances between industry giants, there are also thousands of alliances between companies of different sizes and strengths. While a large company may enter into an alliance with a small company in search for entrepreneurial capabilities and market niches, the latter may be looking to the former as a source for venture capital and research support for innovative ideas.

Academic interest on SBAs has also increased immensely lately. Many propositions have been put forward on their objectives, conditions of use, problems in formation, management and control, sharing of benefits, performance evaluation and effectiveness (for example, Anderson and Gatignon 1986; Auster 1987; Buckley and Casson 1988; Chiang 1989; Contractor and Lorange 1988; Douglas and Craig 1989; Geringer and Hebert 1989; Gupta 1987; Hamel, Doz and Prahald 1989; Harringan 1987; Koot 1988; Lorange and Roos 1991; Ohmae 1989; Perlmutter and Heenan 1986; Porter and Fuller 1986; Reich and Mankin 1986). A detailed discussion of these propositions is beyond the scope of this paper. Instead, this paper will, as part of a much wider study, only examine the type of SBA agreements entered into by Canadian companies in

Asia Pacific, their motives, and how they feel about a few related propositions on objectives and agreements. The analysis is based upon the findings of a survey conducted in Summer 1991 which investigates who these companies are, why they have entered into SBAs in Asia Pacific, what they are doing and how they are doing.

Survey Design

The definition of Asia Pacific which is used in the survey comprises 12 countries along the west side of the Pacific Ocean - Australia, China, Hong Kong, Indonesia, Japan, Malaysia, New Zealand, Philippines, Singapore, South Korea, Taiwan and Thailand. These countries, though geographical located close to one another, have very different economic and social environments. Among these 12 countries, three are OECD member countries (Australia, Japan and New Zealand), four are newly industrialized countries (Hong Kong, Singapore, South Korea and Taiwan), four are resource rich developing countries (Indonesia, Malaysia, Philippines and Thailand) and the remaining one, a communist country (China). Furthermore, the region as a whole is the second largest trading partner of Canada next to the U.S. In 1990, total trade between Canada and these 12 Asia Pacific countries amounted to C$34.5 billion of which C$15.4 billion were Canadian exports and C$19.1 billion were imports.

According to records kept by External Affairs Canada and Canadian consulate offices in the 12 Asia Pacific countries there are slightly more than 1,000 Canadian companies and organizations with business interest in the region. After cross checking with directories of Canadian companies, 253 industrial and merchandising companies which could possibly have SBAs were selected. Questionnaires were mailed out in the Summer of 1991 to these 253 companies to solicit information on their present operations, expectations, experience and opinions on SBAs in Asia Pacific. After a waiting period of two months, 49 companies completed and returned the questionnaire. Of these 49 companies, 37 are manufacturing companies and the remaining 12 are in industrial service or merchandising operations. In addition, 44 companies replied that they did not have SBAs even though they had business interest in the region. There were also 15 undelivered questionnaires because the companies had either ceased operations or moved and could not be traced.

Because of the unknown number of Canadian companies which may have SBAs in Asia Pacific, there is no way to calculate the degree of representativeness of the 49 responses for the total population. Moreover, some companies may not be sure whether a business agreement they have qualifies being a strategic alliance. There are numerous difficulties and complexities both academicians and practitioners face in compiling aggregative data on SBAs, and that is one reason why up to this date most empirical studies on SBAs have focused upon just a few prominent cases which makes it difficult to make generalizations. However, from all available indications, the use of SBAs is not wide spread among Canadian companies, and there are probably less than 120 companies with SBAs in Asia Pacific. Hence, this sample of 49 companies should provide a reasonably good representation of Canadian companies with SBAs. Nonetheless, in the ensuing discussion of the results some reservations and cautions must be made with the limitations in mind.

Results and Discussion

Table 1 gives a breakdown of the type of agreements covered by the SBAs entered into by the 49 Canadian companies in Asia Pacific. The total number of agreements amounts to 308, of which 157, or more than half are local distribution agreements. Next to local distribution, market promotion/ development agreements are the most numerous. This clearly suggests that Canadian SBAs in Asia Pacific are mostly local market oriented.

TABLE 1

STRATEGIC BUSINESS ALLIANCE AGREEMENTS

		A	B	C	D	E	F	G	H	Total
Australia	(23)	2	0	0	3	2	4	18	1	30
China	(16)	4	6	1	4	0	3	5	2	25
Hong Kong	(18)	2	0	0	1	0	4	15	0	22
Indonesia	(15)	4	2	1	1	1	3	7	0	19
Japan	(32)	5	3	5	4	0	7	22	2	48
Malaysia	(15)	3	1	0	1	0	4	11	0	20
New Zealand	(16)	0	0	0	1	0	4	11	0	16
Philippines	(15)	1	1	0	1	0	2	11	0	16
S. Korea	(23)	3	6	7	5	3	6	16	1	47
Singapore	(17)	2	1	0	0	0	3	14	0	20
Taiwan	(18)	1	1	0	0	0	2	16	1	21
Thailand	(15)	1	2	4	3	0	3	11	0	24
Total Agreements		28	23	18	24	6	45	157	7	308
Companies Involved		16	13	12	13	6	16	33	5	(49)

Notes: 1. A - multi-purpose joint ventures
B - technology transfer agreements
C - contract manufacturing agreements
D - licensing agreements
E - collaborative research agreements
F - market development/promotion agreements
G - local distribution agreements
H - information exchange agreements
2. Total number of companies - 49.
3. The number in brackets indicate the number of Canadian companies with strategic business alliance agreements in that country.

In addition, there are 28 multi-purpose joint ventures entered into by 16 companies, 24 licensing agreements by 13 companies and 18 contract manufacturing agreements by 12 companies. Bearing in mind that there are only 37 manufacturing companies among the 49 respondents, it can be seen that even though the main focus has been on market development, quite a high proportion of Canadian companies are also production oriented in their alliances. Thirteen companies are also engaged in technology transfer, but collaborative research is relatively rare.

Table 2 summarises the motives and fundamental objectives of the responding companies. Since most of the alliance agreements are market oriented, not surprisingly, the most important motive by far is 'to gain access to local

TABLE 2

MOTIVES AND OBJECTIVES

Motives	Number of Companies	Mean	S.D.
a. to gain access to local market	48	6.50	1.29
b. to become 'global' more quickly	43	3.86	2.03
c. to share the business risk	42	3.60	1.95
d. to overcome trade barriers	41	3.34	2.20
e. to develop cultural familiarity	43	3.28	2.03
f. to stabilize earnings	42	3.24	2.14
g. to share regional markets	37	3.22	2.16
h. to minimize capital investment	41	3.12	2.19
i. to reduce cost of product development	42	2.90	2.00
j. to generate new ideas to stimulate internal innovation	41	2.51	1.52
k. to increase contribution to the company's fixed investments	42	2.36	1.89
l. to reduce/share cost of research	41	2.32	1.91
m. to reduce competition	41	2.29	1.78
n. to satisfy personal ambition	43	2.19	1.63
o. to acquire foreign technology	41	1.98	1.62
p. to gain knowledge on how other companies manage	42	1.95	1.40
q. to make use of foreign labour	41	1.93	1.66
r. to gain political protection	42	1.88	1.42
s. to secure material supplies	42	1.86	1.57
t. to integrate the company's operations	40	1.73	1.40
u. to make use of under-utilized equipments	42	1.71	1.42
v. to circumvent investment restrictions	41	1.51	1.19
Fundamental Objective			
a. for growth	48	6.58	0.79
b. for increased profits	47	5.77	1.61
c. for market stability	42	4.12	1.89
d. for risk reduction	44	3.70	1.89
e. for survival	42	3.62	2.03

Notes: 1. The mean is the average on a scale of 1 (= 'not a true description') to 7 (= 'a very true description').
2. S.D. - standard deviation.
3. Total number of companies - 49.

market'. It is also the only one of 22 motives to receive a mean greater than 4.0 which is the mid point on the rating scale. Other motives which have some importance are 'to become global more quickly' (3.86), 'to share the business risk' (3.60), 'to overcome trade barriers' (3.34), 'to stabilize earnings' (3.24), 'to share regional markets' (3.22), to 'minimize capital investment' (3.12) and 'to reduce cost of product development' (2.90). Much lower in ratings are motives such as 'to generate new dieas to stimulate internal innovation' (2.51), 'to acquire foreign technology' (1.98) and 'to gain knowledge of how other companies manage' (1.95). These results somehow lend support to the contention that many Western companies enter into strategic business alliances mainly to avoid investments, and are more interested in reducing the costs and risk of entering new markets than in acquiring new skill.

Among the motives which have a mean of greater than 3.0 is 'to develop cultural familiarity' (3.28). This motive is not as directly linked to production and marketing operations as many other motives which are assessed as less important. This suggests that many Canadian companies do realize that significant cultural differences exist between Canada and the Asia pacific countries (perhaps with the only exception of Australia and New Zealand) and cultural familiarity is an important attribute for successful market development in the region.

The fundamental objective for Canadian companies entering into SBAs in the region is apparently more aggressive than defensive. Growth and increased profit are rated significantly higher than market stability, survival and risk reduction.

The propositions on objectives and agreements which the responding companies were asked to assess are:

1: "Both partners would benefit more if they know clearly the other's objectives." (P1)
2: "A common objective is not an important attribute to the success of an alliance." (P2)
3: "An alliance would benefit both partners more if its real terms go beyond the legal agreement." (P3)
4: "An alliance would benefit both partners more if there is some vagueness and flexibility in the agreement." (P4)

Before the results are analyzed, a brief explanation of these propositions is in order.

Very few companies if any at all will enter into SBAs without knowing what they themselves want. And certainly, they would search for and negotiate with potential allies with their objectives in mind. However, knowing one's own objectives does not necessarily mean that one is willing and ready to tell everything to the other party. Some alliance partners, realizing that they are competing in other lines of operations and markets, may worry that they would be revealing their areas of weakness if they let the other party know what they going after in the alliance. But according to the first proposition (P1), this would not be the wise thing to do. Being up-front and truthful with each other will benefit both parties more than trying to hide from each other. The rationale behind this is simple - if partners do not know each other's objectives, they will not know whether or not they have the right partner with compatible objectives and the ability to contribute. Furthermore, if one company expects more from its partner than what the latter is prepared to contribute, the former will blame the latter for being uncooperative when things do not work out as planned while the latter will accuse the former of being overly aggressive and greedy. Hence, it is important that alliance partners should enter into alliances with clear understanding of each other's objectives and how these objectives complement and interact with one another.

Understanding each other's objectives does not necessarily mean that they have to be the same. While making the alliance a success should definitely be a common goal, what constitutes success may vary from one company to another. According to traditional wisdom, a common objective would lead to concerted efforts in the same direction, and will enhance the harmony and efficiency of joint venture operations. However, SBAs are different. Unlike traditional joint ventures for which the major driving force

behind is usually vertical integration and economies of scale, modern day SBAs are often built upon the complementarity of resources and capabilities. This being the case, it is unlikely, and perhaps unnecessary for the alliance partners to have a common objective. The important requirement is to have the objectives compatible and converge, and the agreement mutually beneficial. For example, while one partner may have the objective of acquiring technology from the other party to improve its production capability, the other partner's objective may be to gain access to the former's distribution network and marketing skill.

Goals and objectives are set under a set of assumptions and predictions on environment; however, the environments within which the alliance is supposed to work do change, and sometimes dramatically. In order that the alliance can adapt itself to changing environments and be flexible enough to take advantage of opportunities when they arise, another proposition suggests that both parties of an alliance will benefit more if its real terms go beyond the legal agreement (P3). What this means is that, with mutual understanding which is not written into the agreement, the alliance can move in a direction and venture into areas not specified in the original agreement as long as this move is within the confines of the 'understanding'. The rationale is that no matter how meticulous a legal agreement is, it can never document all possible scenarios and contingencies which surround and impact upon the operation of the alliance. Furthermore, drawing up legal documents is a time-consuming and often frustrating process. Hence, for an alliance to serve the parties best, some mutual understan-ding of the general purpose of the alliance that goes beyond the legal clauses should be present. This is why some people believe that a good informal relationship between the alliance partners, or their chief executives, is more important to the success of the alliance than a good formal contract. And some even go a step further in claiming that an alliance would benefit both partners more if the there is some vagueness and flexibility in the agreement (P4).

As can be seen from **Table 3**, Canadian companies with SBAs in Asia Pacific do not agree entirely with all the four propositions. While an overwhelming majority of them agree that both parties will benefit more if they know clearly the other's objectives (P1) and if the real terms of the alliance go beyond the legal agreement (P3), they are not too sure whether some vagueness and flexibility in the agreement will benefit both partners more (P4). There were more companies which disagree with this proposition (P4) than those which agree. As for a common objective, there is a high level of consensus that it is an important attribute to the success of the alliance. Of the 45 companies which assess this proposition, only 4 are inclined to agree that a common objective is not important. Looking at the assessment of the

TABLE 3

PROPOSITIONS ON OBJECTIVES

Proposition	Disagree .1	.2	.3	.4	.5	.6	Agree .7.	Mean	S.D.
1. Both partners would benefit more if they know clearly the other's objectives (45)	0	2	1	4	9	18	11	5.62	1.25
2. a common goal is not an important attribute to the success of an alliance (45)	22	12	2	5	3	0	1	2.09	1.46
3. An alliance would benefit both partners more if its real terms go beyond the legal agreement (42)	2	1	1	6	6	12	14	5.50	1.61
4. an alliance would benefit both partners more if there is some vagueness and flex-ibility in the agreement (45)	4	12	6	10	7	5	1	3.51	1.60

Notes: 1. S.D. - standard deviation.
2. The numbers in brackets represent the number of companies giving an assessment to the proposition.
3. Total number of companies - 49.

validity of these propositions as a whole, it is quite apparent that while Canadian companies do not mind having the real terms going beyond the legal agreement and also some vagueness and flexibility in the agreement, they believe that it is important to have a common objective and a clear understanding of each other's objectives.

Concluding Remarks

For many Canadian companies SBAs will be essential, not only for their growth and development, but also for their survival in the years to come. However, it is important to recognize that while alliances can confer substantial benefits, they are not without challenges and risks. There could be problems in finding a trust-worthy partner, negotiating the alliance agreement, managing the alliance, and in sustaining a compatible and mutually beneficial relationship. But all these problems must be resolved with a clear under-standing of the purpose of the alliance and the partners' respective objectives, and their implications on how the alliance should be formed and run. Numerous SBAs have failed, and for most of them, it is the result of ill-conceived plans and policies arising from a misunderstanding of either or both parties objectives and expectations. Hopefully, the above findings and discussions on Canadian SBAs in Asia Pacific will help to clarify a couple of the common issues and major considerations involved.

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EUROPE 1992: THE IMPACT OF UNIFICATION OF THE AUTOMOBILE INDUSTRY

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Abstract

In light of recent world events, the unification of Europe has become more eminent. This paper explores the probable impact of unification on the auto industry. The Japanese have been very assertive in their effort to establish production capabilities in Europe. England, Germany and other European countries have made significant concessions to attract new Japanese capital. Of the American auto manufacturers, GM's European operations might suffer the most. Ford may not experience any significant changes. In response to the Mega-deals the Japanese are cutting with the Europeans, The American manufacturers might have to join their forces ... a matter not favored by anti-trust.

Introduction

The European Community is in the process of removing physical, technical and fiscal barriers amongst the twelve members (Wall Street Journal June 15,1990) by December 31, 1992 in order to form one market of 320 million people with a gross domestic product of $2.7 trillion. The "Eurocommunism" of the 1970s and "Eurosclerosis" (McAllister 1989) of the early 1980s are giving way to the growing mood of "Europhoria."

Five forces jolted the EC out of their economic slumber, toward a single market. First, the creation of the European Monetary System brought upon a convergence focusing on the West German Mark. Second, the national governments began stressing market forces as the means to reinvigorate the economy. Third, Europe's declining ability to compete against the U.S. and Japan in technology prompted an EC response. Fourth, new leaders stirred popular desires for a strong political identity. Fifth, European nations desired a larger role in defining the trans-Atlantic relationship (Cecchini 1988).

A March 1989 Louis Harris and L'Express magazine poll indicated that Frenchmen think that Europe will be economically stronger than the U.S. or Japan in twenty years (Wall Street Journal May 15,1990). Nevertheless a February 1989 Booz-Allen & Hamilton survey of 103 executives indicates that American management is unprepared for European unification. Sixty-two percent stated that their firms had not formulated a response to the consequences of 1992 and 52% admitted that they were unaware of the EC's White Paper on 1992 (Wall Street Journal May 15,1990). The purpose of this paper is to investigate the potential effect of the proposed European Unification in 1992 on the automobile industry.

The Cecchini Report

The logical place to begin a discussion of European unification in 1992 is with the 1988 Cecchini Report. The sixteen volume report expounds on the two major tenets of the unification process and examines how the removal of four types of barriers as mandated by the EC's 1985 "White Paper on Completing the Internal Market" will save great costs, which in turn will transform the European economy. The four hindrances to free trade include: (1) border controls and red-tape, (2) divergent standards and technical regulations, (3) conflicting business and tax laws and (4) protectionist government procurement policies.

Border Controls and Red-Tape

The costs of border controls and red-tape include 7.5 billion ECUs ($9.09 billion using the exchange rate of June 4, 1990), which business pay for administrative costs, and an additional 415-830 million ECUs caused by delays in intra-EC customs procedures. Six governments spend an additional 1/2 - 1 billion ECUs of taxes for the 15,000 to 30,000 officials, within their staffs of 75,000, who implement custom controls. The duties on large shipments run approximately 2% of their value, whereas small consignments can be between 30% and 45%. This discourages companies with less than 250 employees, who would presumably ship in smaller lots, from exporting to other EC countries. Thus a further 4.5 to 15 billion ECUs worth of business is foregone (Morrison 1990).

Divergent Standards and Regulations

Divergent product standards and technical regulations is the second type of barrier, which causes firms to manufacture only for the domestic market. This deprives companies of the ability to amortize both new plant investment and escalating R & D costs. This barrier most specifically affects five industries: telecommunications, automobiles, foods, pharmaceuticals and building products. National Postal, Telephone and Telegraph agencies (hereafter PTT) have required specialized standards, which in turn must be certified by a specific national laboratory. The resultant cost has been estimated to be as high as 4.8 billion ECUs. Ford commissioned the Motor Industry Research Unit Ltd., who determined that differing product standards cost the automobile industry 286 million ECUs. It has been estimated that this barrier costs the food industry up to 1 billion ECUs, of which 80% adversely affects only four product lines: chocolates, beer, ice cream and pasta (Morrison 1990).

Pharmaceutical firms feel the affects of this barrier in the difficulty of having new products being accepted. This barrier cost for the building industry has been estimated at 2.5 billion ECUs (Morrison 1990).

Business and Tax Laws

The third barrier that contributes to the costs of "Non-Europe" is the conflicting business and tax laws, which cause large firms to produce three different sets of accounting reports. The government of the country in which the headquarters is located will require one style, whereas subsidiaries located in other EC countries will be required to submit a second style. In addition, for purposes of internal control, the company will require all units to utilize a third system (Emerson 1988)

Government Procurement

Protectionist government procurement policies is the fourth barrier, which will be removed. Government procurement in 1986 totaled 530 billion ECUs, which amounted to 15% of the EC's gross domestic product. It is possible that 240-340 billion of this amount could be made available to free trade. However as of 1986 governments allowed only 4.95 billion to be supplied by firms from other EC countries. Research on the procurement by five governments in 1984 led to three conclusions. First, buying from the cheapest EC supplier would result in savings of 3 to 8 billion ECUs. Second, protected domestic firms would need to decrease prices due to foreign competition, resulting in a savings of a further 1 to 3 billion ECUs. Third, economies of scale would result in an additional savings of 4 to 8 billion ECUs. Interpolating from the results of five EC countries to twelve, it has been estimated that free trade within government procurement could result in savings of 17.5 billion ECUs (DeBony 1989).

The Consequences of Removing the Barriers

As a result of the removal of barriers, costs will decrease and so consequently will prices. As prices diminish, demand will increase and thus manufacturers will increase production, which in turn will enable them to better compete for the global market. The economic growth will occur without inflation as prices will drop due to the increased competition. One medium-term result will be the creation of substantial numbers of new jobs (Muller 1989).

The results can be viewed from the conservative perspective of approximately 70 billion ECUs due solely to the removal of barriers to the more optimistic 175 to 255 billion ECUs in the theory that the removal of barriers will lead to a more competitive market.

Impact of 1992 on the Auto Industry

Automobile manufacturing is the major industry considered in this paper. Automobiles are the largest industry as well as the biggest employer in Europe. However the early 1980s were financially disastrous for Europe's "Big Six" auto companies (Sasseen 1989). For example Peugeot lost 137 million ECUs ($164 million) in 1984 alone, Renault's losses in the early 1980s totalled 4.3 billion ECUs ($5.2 billion), Fiat lost L 200 billion ($15.9 million) and General Motors accumulated a deficit of $2.2 billion (Sasseen 1989).

On the other hand each year from 1985 through 1989, European car sales have broken all-time records. Thus Peugeot expected earning 1.6 billion ECUs ($1.9 billion) in 1989 and Renault's 1989 expected profits are FFr. 8.9 billion ($1.5 billion). Fiat's profit for the decade is L 4.5 trillion ($3.6 billion) and GM's profit through 1988

is $3.04 billion (Sasseen 1989B) However this turn-around in the industry has in part been due to the fact that Germany limits Japanese imports to 15.2% of the domestic market, Britain to 11.2%, France to 2.9%, and Italy as well as Spain to only 0.9% (Sasseen 1989B).

Japan and the EC Auto Market

The threat of Japan greatly increasing market share in Europe has provoked disagreement between open-market attitudes in Germany and England as opposed to protectionist desires in France, Italy and Spain. Thus Volkswagen Chairman Carl Hahn affirms: "We should have the self-confidence as Europeans not to classify ourselves as non-competitive." In response Stephane Doblin, the former chief financial officer at Fiat as well as head of planning at Renault, asserts: "At the very least, that would kill off the French and Italian industries....No reasonable government would let that happen" (Sasseen 1989B).

In response to Canon's and Ricoh's loss in anti-dumping actions in the EC, the Japanese have employed a new strategy of building plants in Europe. Thus by the end of March 1989, 506 Japanese manufacturing facilities had been established on the Continent. This reflects a greater than three-fold growth since early 1983.

England has courted Japanese investment more aggressively than any other EC country, receiving $1.98 billion in the first half of fiscal 1988 alone. This sum represented half of all the Japanese money entering the Continent within that time frame. The Japanese Ministry of International Trade and Industry (MITI) has disclosed that the United Kingdom has received the most investment with $8.6 billion, followed by Luxembourg with $4.4 billion, the Netherlands with $3.6 billion and West Germany with $2.1 billion.

In the Spring of 1989 Toyota decided to build a 1 billion ECU ($1.2 billion) plant in Britain, thus following Nissan's lead in locating a Bluebird plant there (Sasseen 1989B). However the United Kingdom has paid a price in seeking Japanese investment. First, England has had to offer Japanese corporations higher inducements. For example NEC was first offered $2 million to build a semiconductor facility in Germany. Britain received the plant by agreeing to give $7 million in aid. Similarly English assistance to Nissan will amount to more than 40% of the factory's $969 million cost. Second, the French and Italians announced that they would refuse to accept Nissan Bluebirds, built in Britain, as the locally produced content was far less than the 73%, claimed by Thatcher's government. Apparently Fiat dismantled a Bluebird and discovered that only 45% was of European content. Third, components may not be produced by British suppliers as Nissan was followed by half a dozen producers of automobile parts and Toyota is expected to even bring its own bank and insurance company (Ingrassia and Graven 1990).

From the British locations, Nissan, Toyota and Honda anticipate producing more than half a million vehicles by the early to mid-1990s. Forecasts predict the Japanese market share could be 20% by 1993 and could reach 30% within ten years. Although Japanese auto executives try to reasssure Europeans that growth in sales will offset the new production, analysts expect the market to grow by only 2% annually. Thus Rudolf Beger, director of government relations for General Motors Europe, affirms that several of the "Big Six" will go bankrupt and 300,000 jobs will be lost (Etheridge 1990).

Surprisingly, not all Japanese automobile ventures in Europe have proven to be successful. Isuzu made the mistake of trying to market their diesel, instead of their gasoline powered cars, as well as allowing GM to market their most popular model, rather than allowing their dealers to distribute them. Within two years of market entry, the Isuzu could not be sold in Germany with less than a 30% discount. Thus the firm is discontinuing operations in Germany, Sweden, England, Greece, Ireland and Switzerland (Van Tulder and Junne 1988).

Europe's Response to Japan

European automobile manufacturers want to avoid repeating the American experience with Japanese cars. Thus Ford's European operations has cut 50,000 employees and Fiat's enormous investment in automation has produced one of the most sophisticated, flexible production systems in Europe. Peugeot plans to increase productivity by 50% between 1989 and 1993 through the use of information systems and automated manufacturing.

Peugeot-Citroen currently uses 8,700 programmable logic controllers in

addition to 1,500 intelligent robots, who roam the factory floor. Industrial computer systems now number 1,050 and they are increasing by 20% annually. Furthermore the automated paint shop can spray 1,800 cars in twenty different colors within a twenty-four hour period. Nevertheless Peugot-Citroen is less advanced in computer-integrated manufacturing than most Japanese and even some European competitors.

Concerning robotics, it is reported that in 1982 Mercedes used 114 robots for every 100,000 vehicles produced, whereas the figures for BMW were 97, Volkswagen-Audi 62, Fiat 54, GM-USA 50, Toyota 44, Nissan 41, Mazda 39, Chrysler 37, Ford-Europe 32, Renault 26, Peugeot 25 and Ford-USA 23.

In addition MIT reports indicate that not only do Japanese employees work more hours than their European counterparts, but that they produce a car in less than half the time. Thus even though European auto manufacturers increased the value added per employee by 85% between 1982 and 1987 (Browning 1990), James Womack predicts job layoffs of 40% (White 1990).

It is still uncertain what the EC will do. On the one hand the French, Italians and Spanish desire to limit Japanese imports to 10% for five years after the open market begins on January 1, 1993. However Martin Bangemann, the Internal Market Commissioner, is in favor of eliminating all quotas by 1993 due to the health of the European industry during the last five years (Bonine 1989).

One would have thought that Fiat, Peugeot and Renault would be the first industry players to go bankrupt. However Ludvigsen Associates, the London-based consulting firm, avers that Fiat, Peugeot-Citroen and Volkswagen will fare the best because of their strong centralized bases of production, their numerous models as well as their sales force. The consultants continue that the single market will most adversely affect GM of Europe (Graven and Brauchlli 1990) and Renault, but will have no effect upon Ford of Europe. However other analysts view GM, Ford and Volkswagen as the strongest firms due to their widely distributed manufacturing and marketing bases.

Conclusion

In assessing the impact of European unification on U.S. industries, one may conclude that the U.S. Supreme Court will have to change the direction of their recent antitrust opinions in order for American corporations to remain competitive. Thus the German "Supreme Court" allowed Mercedes to buy Messerschmidt-Bolkow-Blohm, apparently sensing that Mercedes was not competing solely within the Federal Republic, but apparently understanding that Mercedes needed the resulting synergy to compete globally. Thus it has been most unfortunate, in this context, that American courts have broken up the Bell Telephone System. The result has been a weakened telecommunications industry, which will struggle to compete globally. For example, GTE spent large amounts of money on research and development in order to develop a digital switch. However Siemens is distributing this product. In addition, although the U.S. industry has replaced more miles of copper cable with fiber optics, France is ahead in Integrated Services Digital Networks. Bell Laboratory has recently developed the laser switch, but will the European or Japanese telecommunication industries be the big benefactors? In order to compete globally, American industries must return to the "big is beautiful" philosophy.

A further joint venture by which Europeans are preparing for unification lies in the fact that Germany's largest corporation, Daimler-Benz (with 1989 sales of 84.5 billion DM), and Japan's largest firm, Mitsubishi (whose 1989 sales were 420 billion DM) have expressed the desire to cooperate in all essential fields of operation. The French newspaper, Le Monde, declared this process "a dangerous rebirth" and questioned whether "a new Axis" was being established. The German magazine, Der Spiegel, retorted that the French were being overly-dramatic and agreed with the Financial Times of Singapore in describing the union as the global future of the automobile, airline, space and electronics industries.(34) How and where the two firms will cooperate must be decided through tedious negotiations. But the best chances reside in the airline and space industries. One of the immediate effects upon American corporations will become apparent in the commercial

jet industry. Boeing had allowed Mitsubishi to participate in building the 767-X in order to prevent the Japanese firm from producing a competing model. With Daimler-Benz as their partner, Mitsubishi is freed from this dependence.(35)

Of the 279 pieces of legislation, required to implement the single market, 230 have been drafted. Of the 230, the Council of Ministers and Parliament have enacted 130, but all twelve nations have only implemented seven. While much work still needs to be done before the final unification is realized, one thing is certain: Change. The European Market and the manner in which U.S. firms conduct business in Europe will be dynamic. Prudent coporate executives will continue to assess the changing environment and make the best decisions now while considering the impact of these decisions on the future of their organizations. This action-oriented strategic approach will not reduce the risk of a changing, global environment, but it will better equip organizations to deal with the inevitable change.

References

A complete list of references is available from the authors.

HONG KONG CONSUMERS' PERCEPTION OF DOMESTIC VERSUS FOREIGN BANKS

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Abstract

In recent years, as a result of increased competition and introduction of advanced technology into banking sector, commercial banks of all sizes have taken an active interest in applying marketing concepts and techniques. With this in mind, the purpose of this empirical study is to determine the importance of selected patronage factors used by Hong Hong consumers in choosing domestic versus foreign banks. Although Hong Kong consumers use domestic banks more, they perceive the usefulness of a select number of services in a similar manner for both domestic and foreign banks.

Introduction

In recent years, there has been an intensified interest in both developed and developing world in marketing management as a legitimate banking activity. There are a variety of reasons which account for this global interest in bank marketing (Kaynak, 1986). One of the most significant factors accounting for this is that during 1980s the demand of consumers as well as business enterprises for bank services has increased substantially. As the income sophistication and purchasing power of consumers increased and business enterprises increased their scope of operations grew and prospered, their demands for a variety of services offered by financial institutions, especially by banks, increased concurrently. This apparent demand increase by bank customers for a host of services has at the same time intensified commercial banks' concern for their customers' needs and expectations. This situation, in most cases, has forced banks of all sizes both in developed as well as in developing world with better ways and means of satisfying their target markets' banking needs. As well, innovative ways of service delivery and development have also been tried by banks and financial services alike in many countries.

Because of these rapid socio-economic and technological developments and changes taking place in the marketplace, commercial banks of all sizes and types have started scanning their environment more closely and tried to design and implement marketing strategies to combat threats from competing banks as well as from other financial institutions. Furthermore, domestic banks especially in developing countries have to reckon with the competition coming from foreign banks and make appropriate adaptations in their marketing strategies.

Literature Search

If successful and effective market plans are to be made and marketing strategies developed to implement them, commercial banks must have a comprehensive knowledge of customers' values, attitudes, interests, needs and perceptions of the various services the bank offers and the image which customers have of the bank itself (Kaynak, 1986). It is stated over and over again, the bank's primary concern must be with the needs and wants of its customer groups, both present and potential. There are five major principles of marketing planning in banking. These are (Anonymous, 1989): a) bank seeing itself from the customer's viewpoint, b) regarding the customer as the central focus, c) avoiding predictions of the future that are extensions of the past, d) understanding that customers buy a bundle of benefits rather than products or services, and e) recognizing the wide range of customer needs and wants inherent in the marketplace. Application of these principles does vary among different countries as there are substantial variations in the level and sophistication of bank marketing planning and programing.

In one study conducted in India, it was discovered that a considerable improvement in marketing of bank services is needed in rural and semi-urban areas. It was concluded that banks in these areas should function as educators and advisers who provide timely credit on a reasonable basis. City and commercial banks should concentrate on offering a variety of efficient ancillary services and building a larger clientele base (Sreenivasan, 1987).

One can emphatically state that offering effective services is the essence of marketing concept which has been defined as the creation and delivery of need-satisfying goods and services at a profit. One aspect of this definition should be emphasized more forcefully. This is marketing is customer oriented. Hence marketing concept requires that service organizations, including the banks, should think in terms of what customers need, buy and require. To compete successfully in today's competitive marketplace, banks must focus on understanding the needs, attitudes, satisfactions, and behavioral patterns and orientations of the market. In a study conducted in Saudi Arabia, it was discovered that Saudis generally choose a bank based on its past experience, reputation, service, and personnel (Yavas, 1988).

Despite this, bank officials have too often made efforts to provide services which they assumed their customers wanted or which their competitors provided. Services were frequently offered with little idea of whether they were fulfilling customer needs, whether they were financially self-supporting, or to which segment of the market they appealed. In short, bankers viewed themselves in the "business of attracting deposits and capital for the purpose of making loans and investments" (Baker, 1977). This situation was reflected in a) the lack of representation of the marketing function in a clear and specific manner, b) fragmentation of

marketing activities across various departments, with no clear-cut coordination or control, c) the absence of marketing data bases, d) the lack of trained marketing personnel (Siagh, 1985).

Although banks, in some cases, have been slow in adopting the marketing practices, recently a flurry of research has been devoted to the area of bank marketing. A study by Laroche and Taylor (1988) explored attitudes toward bank selection. It revealed that convenience is the principal reason for bank selection, followed by parental influence to status of the bank. However, some banks that have used market research to examine their competitive situations have found different results. For instance, one bank learned that its customers did business there because of convenience, long association, recommendations of friends and relatives, and accessibility to easy credit. A study by another bank indicated that its customers chose it for the friendliness of its personnel, services offered, convenience and reliability (Kaynak, 1986). In another study, (Evans, 1979) contended that two different types of bank selection criteria account for bank patronage decision, namely service beliefs and situational factors. But these traditional bank selection criteria may be less important in a developing country environment or in an oriental culture such as Hong Kong than in the West. For instance, in a study conducted in Singapore, it was shown that social factors influenced bank customers' intention for which bank to use more strongly than other attributes (Tan and Chuo, 1986).

Purpose and Rationale of the Study

In the last decade, governments of Newly Industrialized Countries (NIC) such as Singapore and Hong Kong embarked on a strategy to develop their financial services industry into an international financial center. For instance, the Monetary Authority of Singapore (MAS) has welcomed international financial institutions in order to attract innovative, professionally skilled companies that would upgrade the quality of financial services in that country. Because the small domestic economy is unable to support a large influx of foreign banks, MAS has granted licenses to new entrants only for offshore operations (Ta and Gin, 1978).

Hong Kong where this study was conducted is one of the three largest international financial centers in the world. The financial services sector contribute immensely to the healthy economy of Hong Kong. The banking industry in particular is thriving and yet very competitive. Despite the rapid increase in international banks, the Hong Kong banking market has not reached its saturation as yet, and the international banks have not cannibalized the domestic market (Hsu, and Ho, 1988). But, a considerable degree of competition has already started between domestic and foreign banks in this country.

With this in mind, then, the purpose of this study is to report the findings and implications of an empirical study which was conducted in Hong Kong during the summer of 1990. More specifically, the study was designed a) to determine the importance of selected patronage factors used by Hong Kong consumers in choosing domestic, locally-incorporated (e.g.: Hong Kong Bank, Hang Seng Bank etc.) and foreign (Citibank, Chase Manhattan Bank, etc.) banks and b) to determine the perceived usefulness of variety of services offered by domestic versus foreign banks in the Hong Kong market, and finally c) managerial implications of these on commercial banks operating in Hong Kong be it domestic and foreign origin.

In a study conducted in Thailand, an 11-item customer satisfaction scale was used. According to this study, domestic banks received significantly better mean scores than foreign banks on all 11 items. Customer satisfaction was higher when Thai banks had a higher level of internal marketing practice. Furthermore, customer satisfaction also grew when external marketing practice was higher (Tansuhaj et al, 1987). In view of the past studies conducted on bank marketing in developing countries, it appears that the evaluative criteria used for bank selection differs by country and by geographical region.

Methodology

The data for the study were collected through self-administered questionnaires. A sample of 300 respondents from a cross-section of Hong Kong population, representing predominately professionals, traders and businessmen were selected. A stratified sampling technique in terms of income, occupation, and demographics was utilized. Respondents were selected from Hong Kong Island, Kowloon and New Territories in Hong Kong. Equal number of households from each region were contacted personally with the help of senior students from a local higher educational institution. An adult member of the household was asked to complete the questionnaire. After a one week period, questionnaires were personally retrieved. A total of 106 usable questionnaires were obtained, allowing 35.3% response rate. Demographi and socio-economic characteristics of the respondents are indicated in **Table 1**.

Respondents evaluated characteristics of the domestic versus foreign commercial banks in Hong Kong on a number of dimensions. These were: a) frequency of bank usage, b) types of accounts held, c) types of banks they maintain accounts with, d) the importance attached to different bank services and characteristics, e) usefulness of different bank services, and f) the comparison of two groups of banks in terms of set of evaluative criteria.

To achieve the purposes of the study, respondents were asked to answer a set of questions. They were asked to indicate on a four-point Likert type scale, ranging from very important to not important, how important they viewed a series of factors in choosing domestic and foreign banks. The second set of questions was designed to generate data concerning the perceived usefulness of several services provided by domestic and

foreign banks to their customers. The perceived level of usefulness of these services was measured again on a four-point Likert scale. The cues ranged from "very useful" to "useless." The list of 35 factors used in this study were generated from attendants to an executive training program in bank marketing held by one of the authors in Hong Kong as well as from the current bank marketing literature. As the items were extracted from Hong Kong bank executives and managers of financial institutions in Hong Kong, this lends credence to the usage of factors in the study.

It is hoped that the information presented in this paper will provide bank executives with insights into the kinds of services customers find most appropriate to their banking needs. This, coupled with an understanding of salient criteria used by customers in choosing a bank, should help bankers to develop more precise marketing strategies to attract a larger number of customers. Without such knowledge, it is only wishful thinking that the gap between the buyers and sellers of banking services in Hong Kong will be closed (Kaynak and Kucukemiroglu, 1992).

TABLE 1
RESPONDENT PROFILE
(N = 106)

Characteristics	Number	%
Sex:		
Male	74	69.8
Female	32	30.2
Age:		
Under 20	10	9.4
20-29	32	30.2
30-39	61	57.5
40+	3	2.9
Occupation:		
Administrative Personnel	40	37.7
Professional	16	15.1
Tradesmen/Salesmen	15	14.1
Technical Personnel	14	13.2
Others [b]	21	19.9
Income [a]		
Under 6,000 per month	21	19.8
6,000-12,000 per month	41	38.7
12,001-18,000 per month	27	25.4
18,001 and above	17	16.1

[a] At the time of this study the exchange rate was US $1 + H.K. $7.8

[b] Others include housewife, student, government employees, retired persons, security personnel.

Findings

The study findings indicate that banking conditions in Hong Kong mostly parallel to those of many developed countries of the West. By using the self-designated method, respondents were divided into frequent versus infrequent users of bank accounts. Infrequent users are defined as those who make use of this accounts at least once a week. Usage here denotes making actual deposits and/or withdrawals in a bank branch and/or ATM. This method generated 56 frequent and 50 infrequent users. There were statistically significant differences between frequent and infrequent bank customers on fast and efficient service, availability of credit with favorable terms, lower service charges on chequing accounts and other services, lower interest charges on loans, confidence in bank manager, automatic teller machines, and offering savings plans. Table 2 presents a comparative profile of the two segments according to the importance placed on bank selection criteria.

TABLE 2
RATING OF PATRONAGE FACTORS BY FREQUENT VERSUS INFREQUENT BANK CUSTOMERS*

Attributes	Infrequent (n=50)	Frequent (n=56)	t
Location being near home or work	1.440	1.321	0.85
Fast and efficient service	1.408	1.196	2.26**
Recommendations of friends or relatives	3.245	3.073	1.11
External appearance of bank	3.187	3.000	1.17
Interior comfort	2.837	2.704	0.86
Counter partitions in bank	2.820	2.808	0.07
Mass media advertising	3.163	3.296	-0.91
Available parking space nearby	3.587	3.678	0.66
Reception received at the bank	2.380	2.545	-0.97
Bank's reputation and its image	1.500	1.382	1.13
Friendliness of bank personnel	1.898	1.714	1.38
Availability of credit with favorable terms	2.319	1.796	2.87*
Lower service charges on chequing accounts and other services	1.959	1.696	1.68***
Lower interest charges on loans	2.230	1.804	3.40*
Higher interest payments on savings accounts	1.837	1.618	1.37
Confidentiality of bank	1.620	1.509	0.84
A wide range of service offered	1.860	1.661	1.41
Confidence in bank manager	2.783	2.462	1.75***
Financial counseling services provided	2.510	2.500	0.06
Overdraft privileges on chequing accounts	2.326	2.057	1.46
Savings account	1.531	1.582	-0.39
Chequing account	1.312	1.291	0.20
Night depository	2.622	2.800	-1.03
Traveller's cheque	2.306	2.370	-0.44
Money orders	2.222	2.283	-0.42
Credit cards	1.580	1.518	0.56
Vault location	2.105	2.187	-0.51
Foreign exchange	2.100	1.962	0.97
Offering securities	2.159	2.113	0.29
Automatic teller machines	1.782	1.390	2.48*
Safety deposit boxes	1.959	2.145	-1.15
Banking by mail	2.227	2.302	-0.63
Loans	1.870	1.782	0.60
Mortgages	1.766	1.685	0.58
Offering savings plans	2.091	2.404	-1.99**

* Mean scores can range between 4 and 1, where 1=very important and 4=not important.

* Significant at ≤0.01 level
** Significant at ≤0.05 level
*** Significant at ≤0.10 level

Table 3 examines the differences in attribute importance between those customers who utilize domestic banks and those who maintain accounts with foreign banks. Foreign bank customers consider bank's reputation and image, confidentiality of bank, confidence in bank manager are more important than the customers who have accounts with domestic banks. Location being near home or work, available parking space nearby, financial counselling services provided, vault location, automatic teller machines and loans were favored by domestic bank customers.

Table 4 shows that fast and efficient service, bank's reputation and its image, personnel, confidentiality of bank, a wide range of service offered, confidence in bank manager and foreign exchange are considered more important by foreign currency account holders. On the other hand, checking and savings account holders consider mass media advertising, available parking space

nearby, vault location and offering savings plan more important than the foreign currency account holders.

TABLE 3

RATINGS OF SELECTED PATRONAGE FACTORS BY DIFFERENT BANK CUSTOMERS*

Attributes	Domestic (n=52)	Foreign (n=39)	t
Location being near home or work	1.346	1.533	-2.06**
Fast and efficient service	1.308	1.238	0.47
Recommendations of friends or relatives	3.096	3.012	0.14
External appearance of bank	2.730	3.110	-1.64
Interior comfort	2.015	2.712	-0.89
Counter partitions in bank	2.712	2.773	-0.11
Mass media advertising	3.038	3.291	-1.26
Available parking space nearby	3.060	3.310	-2.23**
Reception received at the bank	2.577	2.367	1.44
Bank's reputation and its image	1.481	1.226	2.61*
Friendliness of bank personnel	1.865	1.749	1.11
Availability of credit with favorable terms	2.192	1.910	1.78
Lower service charges on chequing accounts and other services	1.962	1.713	1.27
Lower interest charges on loans	1.980	1.746	1.61
Higher interest payments on savings accounts	1.827	1.591	1.53
Confidentiality of bank	1.654	1.271	2.25**
A wide range of service offered	1.788	1.738	0.56
Confidence in bank manager	2.500	2.114	2.69*
Financial counseling services provided	2.538	2.883	-2.18**
Overdraft privileges on chequing accounts	2.150	1.971	1.02
Savings account	1.481	1.601	-0.73
Chequing account	1.308	1.271	0.81
Night depository	2.250	2.410	1.26
Traveller's cheque	2.192	2.199	-0.09
Money orders	1.940	2.023	-0.51
Credit cards	1.500	1.541	-0.45
Vault location	1.730	1.984	-1.93***
Foreign exchange	1.942	2.013	-0.44
Offering securities	1.850	2.011	-0.97
Automatic teller machines	1.462	1.113	2.21**
Safety deposit boxes	1.942	2.146	-1.13
Banking by mail	1.981	2.150	-1.03
Loans	1.808	2.219	-2.41**
Mortgages	1.635	1.710	-0.27**
Offering savings plans	1.920	2.015	-0.91

* Mean scores can range between 4 and 1, where 1=very important and 4=not important.

* Significant at ≤0.01 level
** Significant at ≤0.05 level
*** Significant at ≤0.10 level

Table 5 indicates that availability of credit with favorable terms, lower service charges on checking accounts and other services, lower interest charges on loans, higher interest payments on savings account, confidentiality of bank, overdraft privileges on checking accounts, vault location and foreign exchange services are considered more important factors by customers who have accounts with multiple banks than those who have accounts with one bank only.

Conclusions

The purposes of this study were to determine the importance of selected patronage factors in choosing domestic and/or foreign banks in Hong Kong and to determine the perceived usefulness of several banking services to the customers in three selected areas of Hong Kong. On the basis of the evidence generated in this study, several implications can be drawn for domestic and foreign commercial banks operating in Hong Kong. Study results may also be applicable in other advanced developing countries which are at a similar level of economic and technological development as of Hong Kong. The executives of banking institutions who are determined to make their marketing efforts more effective and productive may utilize those patronage factors which are most salient. They may also be able

TABLE 4

RATING OF SELECTED FACTORS BY TYPES OF ACCOUNTS HELD*

Attributes	Checking & Savings (n=64)	Foreign Currency Savings (n=31)	t
Location being near home or work	1.391	1.398	0.63
Fast and efficient service	1.344	1.121	1.72***
Recommendations of friends or relatives	3.125	3.157	0.18
External appearance of bank	2.810	3.016	-1.19
Interior comfort	2.578	2.714	-1.66
Counter partitions in bank	2.641	2.787	-1.01
Mass media advertising	3.125	3.342	-2.13**
Available parking space nearby	3.110	3.476	-2.03**
Reception received at the bank	2.531	2.212	1.37
Bank's reputation and its image	1.484	1.193	2.48*
Friendliness of bank personnel	1.953	1.510	3.51*
Availability of credit with favorable terms	2.060	1.756	1.51
Lower service charges on chequing accounts and other services	1.906	1.632	1.55
Lower interest charges on loans	1.860	1.571	0.77
Higher interest payments on savings accounts	1.703	1.723	0.19
Confidentiality of bank	1.562	1.471	1.71***
A wide range of service offered	1.891	1.443	2.51*
Confidence in bank manager	2.500	2.112	2.30**
Financial counselling services provided	2.562	2.344	1.41
Overdraft privileges on chequing accounts	2.050	2.011	0.17
Savings account	1.516	1.573	-0.31
Chequing account	1.219	1.316	-0.91
Night depository	2.360	2.442	-0.73
Traveller's cheque	2.312	2.130	0.64
Money orders	2.078	2.133	-0.13
Credit cards	1.531	1.581	-0.38
Vault location	1.730	1.932	-2.61*
Foreign exchange	2.109	1.660	2.83*
Offering securities	1.980	1.891	0.53
Automatic teller machines	1.344	1.432	-0.14
Safety deposit boxes	2.062	1.967	0.71
Banking by mail	2.090	2.053	0.43
Loans	1.797	1.659	0.97
Mortgages	1.672	1.535	0.62
Offering savings plans	1.969	2.291	-1.98**

* Mean scores can range between 4 and 1, where 1=very important and 4=not important.

* Significant at ≤0.01 level
** Significant at ≤0.05 level
*** Significant at ≤0.10 level

to introduce additional banking services if circumstances warrant.

The high ranking of fast and efficient service and friendliness of bank personnel as patronage motives suggest that the banking industry in Hong Kong needs to place more emphasis on personnel training. This type of training should first be in the area of interpersonal communication skills development to serve customer's needs in a better and more efficient manner.

Secondly, Hong Kong banking industry should focus on increasing the efficiency of completing banking transactions. This time saving alternative strategy offers benefits to both individual banks and their customers. The expression of convenience as a highly salient factor, leads to another strategy implication. Hong Kong banks must allocate some of their marketing funds for further branch office expansion into those areas with high concentration of current and prospective customers. Increasing the number of automatic teller machines may also increase bank customer outreach and create increased convenience.

The differences in the perceived usefulness of banking services indicate that banks should follow a market segmentation strategy. In other words, the data suggest that, while every bank

TABLE 5

RATING OF SELECTED PATRONAGE FACTORS BY ONE BANK ACCOUNT HOLDER VERSUS MULTIPLE BANK ACCOUNT HOLDERS*

Attributes	One Bank (n=18)	Multiple Bank (n=88)	t
Location being near home or work	1.556	1.341	1.01
Fast and efficient service	1.444	1.250	1.13
Recommendations of friends or relatives	3.278	3.057	1.18
External appearance of bank	2.560	2.989	-1.30
Interior comfort	2.444	2.739	-1.24
Counter partitions in bank	2.389	2.773	-1.60
Mass media advertising	3.167	3.136	0.14
Available parking space nearby	3.170	3.050	0.36
Reception received at the bank	2.556	2.420	0.60
Bank's reputation and its image	1.444	1.420	0.18
Friendliness of bank personnel	2.000	1.739	1.17
Availability of credit with favorable terms	2.720	1.784	3.45*
Lower service charges on chequing accounts and other services	2.222	1.716	2.14*
Lower interest charges on loans	2.500	1.648	2.84*
Higher interest payments on savings accounts	1.989	1.348	2.27**
Confidentiality of bank	1.833	1.289	1.82***
A wide range of service offered	1.667	1.773	-0.66
Confidence in bank manager	2.060	2.490	-1.28
Financial counselling services provided	2.667	2.386	1.26
Overdraft privileges on chequing accounts	2.843	1.943	2.75*
Savings account	1.011	1.511	0.44
Chequing account	1.444	1.227	1.24
Night depository	2.330	2.450	-0.36
Traveller's cheque	2.444	2.239	0.94
Money orders	2.170	2.068	0.37
Credit cards	1.500	1.557	-0.42
Vault location	1.841	1.260	2.17*
Foreign exchange	1.833	1.352	2.24**
Offering securities	1.720	2.021	-1.07
Automatic teller machines	1.333	1.352	-0.09
Safety deposit boxes	2.000	2.023	-0.08
Banking by mail	1.890	2.114	-0.88
Loans	1.830	1.716	0.43
Mortgages	1.611	1.648	-0.16
Offering savings plans	2.220	2.011	0.67

* Mean scores can range between 4 and 1, where 1=very important and 4=not important.

* Significant at ≤ 0.01 level
** Significant at ≤ 0.05 level
*** Significant at ≤ 0.10 level

needs to offer the necessary services of savings and checking accounts, some may entrench themselves in the minds of the consumers as a bank offering loans; another may stress the availability of transaction facilities at anytime of the day; yet still others can emphasize availability of a variety of financial services. An approach of this nature will facilitate the creation of boutique type banks in Hong Kong. One other overall approach may be one of utilizing a broader mass marketing strategy of trageting a larger clientele base. In this instance, standardization of bank services become a very important concern. For this strategy to work, a substantial number of bank customers must expect uniform type of benefits from a commercial bank.

Foreign banks' success in Hong kong is credited to a strategy of these banks providing high-quality service to niche areas of the Hong Kong banking market. This is to say that foreign banks in Hong Kong use niche marketing strategy. For instance, Hong Kong Bank of Canada (HKBC) concentrates on trade finance in the corporate middle market (Lake, 1989). The ability to service Hong Kong clients in the Chinese language and an extensive network of branches have helped this bank to prosper and expand rapidly over a short period of time. There is a lesson to be learned here for both domestic and foreign Hong Kong banks. These banks, to be able to maintain their competitiveness, must differentiate their service offerings and put more emphasis on those bank services Hong Kong bank customers place most important. As a result, one may purposefully hypothesize here that Hong Kong bank customers from different socio-economic, demographic echelons will require different bank services. It may be a very good idea for both domestic and foreign banks in Hong Kong to develop segmentation strategies along socio-economic and demographic lines.

Considerable investment will also be required by Hong Kong banks in the areas of product and skills development and in the improvement of delivery systems. In particular, improvement of bank employees interpersonal communication skills by making them more sensitive to customer needs and expectation may increase clientele base for both types of banks. In addition to short term market penetration and market development strategies, a long-range market growth strategy for the consumer market requires the use of a wide range of segmentation bases. To this end, psychographic studies which point out the inner hidden value systems and the abstract meanings, bank customers attach value to two different banks will be very timely and insighful indeed. Furthermore, in those areas of Hong Kong (i.e. New Territories) where domestic banks have a limited market presence, perhaps defensible segments can only be created over an extended period of time.

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THE INFLUENCE OF MULTI-LEVEL CULTURES OF INTERCULTURAL NEGOTIATION: NATIONAL, BUSINESS, AND ORGANIZATIONAL CULTURES OF THE U.S. AND JAPAN

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Abstract

This article discusses on three major aspects of culture: national, business, and organizational. The three levels of culture are conceptually distinguished and their influence on intercultural business negotiations is examined. In the process, American and Japanese business cultures with respect to the three levels are contrasted. Managerial implications are also provided.

Introduction

Lack of intercultural communication skills is a problem for firms in many nations. American multinational corporations have been well known for their lack of intercultural training, while otherwise being sophisticated in organizing business tasks. Cultural training, if it exists at all, consists of suggestions for getting along in one's daily life. Given the fact that ignorance of cultural differences in overseas business dealings and negotiations may create mistrust and conflict between parties of different cultural backgrounds, various cultures should be examined carefully in the context of intercultural negotiation.

The purpose of this article is to: (1) define culture and discuss cultural types (national culture, business culture, and corporate culture), (2) consider the literature of clan and market culture (using Japanese and American cultures as examples), and (3) discuss strategies pertaining to intercultural negotiation and bargaining.

Culture: National, Business, Organizational

The construct of culture, with its multiple definitions from multiple disciplines, has caused much confusion; this creates difficulties in reaching consensus regarding definition. Schneider (1988) helps to put the culture puzzle into perspective by suggesting that culture represents three types: (1) behavior and artifacts, (2) beliefs and values, and (3) underlying assumptions. The first two levels are easier to observe, while the underlying assumptions need to be inferred. The underlying assumptions should be surfaced to understand what the behaviors or beliefs mean to the parties involved. National culture, as underlying assumptions, needs to be understood to capture the actual meaning of business customs (business culture)(Terpstra and David 1985) and job-related behaviors and beliefs (organizational or corporate culture)(Schneider 1988). It is believed that management can modify corporate culture but has little control of the underlying assumptions that are embedded in the national culture. This issue is especially relevant to multinational corporations which might experience potential conflicts between the corporate culture of a multinational organization and the national culture of the local subsidiary. In the same vein, generally accepted negotiation rules (business culture) of Japanese business executives have their roots in national culture (e.g., harmony with the group). The clash between two different business cultures is the most likely to occur since discrepancies will surface in the act of negotiation and bargaining. Business culture (e.g., negotiation rules) is embedded in national culture (e.g., social conformity) and affects the shaping of corporate culture. These three types of culture, therefore, should be understood as different but interrelated.

National Culture

National culture is often explained by Western and Eastern cultural orientation. The underlying assumptions embedded in national culture prescribe ways of perceiving and evaluating the relationship with nature and human relationship (hofstede 1980; Laurent 1983; Schneider 1988). The relationship with nature involves major dimensions of (1) control over the environment, (2) activity vs. passivity or doing vs. being; (3) attitudes toward uncertainty; (4) notions of time; (5) attitudes toward change, and (6) what determines "truth." For example, while Western cultures (e.g., American), despite some variations, view man as the master of nature, Eastern cultures view man as subservient to (Korean) or in harmony with nature (Japanese). Western cultures assume that man, as the master of nature, can exploit and harness nature to suit his needs; time, change, and uncertainty can be actively managed and truth is determined by acts and measurement. On the contrary, Eastern culture accepts time, change, and uncertainty as given and examines the truth by spiritual and philosophical principles. In sum, while Western culture is referred to as "adaptive culture," Eastern culture is often referred to as "fatalistic" (Schneider 1988).

The nature of human relationships include: (1) task vs. social orientation; (2) the importance of hierarchy; and (3) the importance of individual vs. group (Schneider 1988). In Western cultures, for example, importance is placed on task and on the individual, and the hierarchy is considered to be as less important. By contrast, in Eastern cultures, more focus is placed on social concerns, on the hierarchy, and on the group or collective (Hofstede 1980).

Table 1 reports differences between Eastern culture and Western culture in various dimensions of underlying assumptions embedded in national cultures.

TABLE 1

NATIONAL CULTURE: COMPARISON BETWEEN WESTERN AND EASTERN

	Western (U.S.)	Eastern (Japan)
Relationship with Nature:	mastery of nature	harmony with nature
	activity	passivity
	doing	being
	truth determined by facts and measurement	truth determined by spiritual and philosophical principles
	adaptive	fatalistic
Nature of Human Relations:	task orientation	social orientation
	hierarchy less important	hierarchy more important
	individualism	groupism

Adapted from Schneider (1988)

This article selects Japan and the U.S. as two contrasting national cultures since these two countries manifest two distinctive cultural characteristics. Besides their unique representativeness of Eastern and Western cultures, the U.S. and Japanese are the two major economic powers which shape the direction of global business. The study of Japanese culture is also necessitated by the fact that Americans have more problems trying to negotiate in Japan than in any other place beyond the U.S. border. According to the U.S. Department of Commerce estimates, for every successful trade agreement between an American and a Japanese firm, twenty-five commercial transactions fall through. A major culprit in this high failure rate is American negotiators' lack of understanding of Japanese national culture and of what makes the Japanese "typical Japanese" (Chesanow 1985).

Business Culture

Business cultures, operating under the influence of national culture, comprise the effective rules of the negotiations, the boundaries between competitve and unethical behavior, and the codes for conduct in business (Terpstra and David 1985). Many statements have been made about Japanese ways of doing business and comparisons have been drawn between Japanese and American management (Chesanow 1985; Ouchi 1981). For example, an effective code for conduct is different for American and Japanese managers. American managers classify managers as individuals, not as a group. They compete for power and position and may not necessarily cooperate in working on related tasks. The accomplishment of each individual's job is his priority. By contrast, Japanese managers value harmony and cooperation within the working group. Group consensus and the achievement of tasks by groups are Japanese managers' priority.

Business cultures collide. American managers in Japan may complain about the ambiguity regarding "who is making a decision?" since Japanese group decision making often delays business negotiations. American negotiators dealing with Chinese counterparts often wonder why, regardless of the number of people on the Chinese side, only one person (the chief negotiator) does the talking while subordinates merely take notes and speak only when spoken to (Chesanow 1985).

Many American managers frown at Japanese negotiators' reluctance to make definite commitments and at their tendency for circumlocution. The Japanese sometimes say "yes" without making a commitment in order to prevent loss of face at the time. Sometimes, this is simply due to native mores regarding politeness.

Japanese managers, on the contrary, often question why American negotiators have to emphasize legal aspects, de-emphasizing trust based on a hand-shake. Akio Morita (1986), CEO and chairman of SONY corporation, in his recent book entitled, "Made in Japan," writes:

> Americans pride themselves on being rational in their business judgments: the total logic of the American business schools seems to be cold, de-emphasizing the human element (p.202)

Morita's observation of American business philosophy reflects the difference between the two business cultures. Comparisons of characteristics in business cultures (negotiation customs) between American managers and Japanese managers are reported in **Table 2**. Eight important

dimensions of interpersonal relationships are included: (1) relationship, (2) response, (3) persuasive tactics, (4) timing of concessions, (5) decision-making, and (6) implementation (Ouchi 1981).

TABLE 2

BUSINESS CULTURE: AMERICAN AND JAPANESE

	American	Japanese
1. negotiator relationship[a]	horizontal	vertical
2. response	direct	circumlocution
3. persuasive tactics	task	human relations
4. concession timing	during the talk	at the end
5. decision making	fast	slow
6. implementation	slow	fast

[a]Japanese buyer-seller relationship can be put in father-son perspective, while buyers and sellers view their relationship as equal (as brothers).

Adapted from Ouchi (1981)

Organizational Culture

Organizational culture (or corporate culture) has acquired special attention from academicians and practitioners since the early 1980s. Organizational culture is defined as, "the pattern of shared values and beliefs that help individuals understand organizational functioning and thus provide them norms for behavior in the organization" (Desphande and Webster 1989). Organizational climate is distinguished from culture in that climate refers to "what happens around here?" while culture refers to the norms and values that underlie climate (e.g., "why do things happen the way they do?").

The concept of organizational culture has been utilized to develop effective employee control mechanism in the presence of the declining productivity of U.S. business and the undeniable success of Japan and other Asian countries (Hofstede 1986). Organizational culture is important for intercultural communications and negotiations since it is largely shaped by wider cultures: business culture and national culture. As in business culture influenced by national culture, organizational culture is constrained by business culture. For example, in order to survive in a competitive business world, a firm should not deviate from the common way of doing business (e.g., contractual agreement for American firms). Although organizational cultures are constrained by business culture, different American firms may practice varying values and norms as they do among Japanese firms.

A few scholars, however, identify two distinctive patterns in organizational culture; they are "clan" culture and "market" culture (Kerr and Slocum 1987; Ouchi 1980). Clan culture features the control mechanism based on employees' long-term commitment to the organization through extensive socialization process and pressure to conform to group values and norms. This cultural orientation is typified by many Japanese firms which practice life-time employment, group decision making, and hierarchy based on seniority. By contrast, market culture typifies the traditional corporate culture of American firms. Contractual obligations are specified in advance. Life-time job security and employee loyalty are not guaranteed. An individual can stand out and become a star since rewards are based on individual performance. Members do not have to share a common set of values since normative pressure to conform is little.

Although clan culture characterizes typical Japanese corporate culture, it can also be found in American firms. Kerr and Slocum (1987), in their recent study of organizational culture in America, interviewed managers from 14 firms on the Fortune 500 list and classified seven firms as clan culture and six as market culture firms; one firm was classified as a mixture of the two. Comparisons between clan culture and market culture are illustrated in Table 3.

TABLE 3

ORGANIZATIONAL CULTURE: MARKET & CLAN

	Market Culture (U.S.)	Clan Culture (Japan)
1. Relationship Employee vs. Organization	contractual short-term	fraternal long-term
2. Relationship Among Peers	independence little conformity individuality	interdependence high conformity collectivity
3. Acculturation Process	little socialization lean normative negotiating superior	high socialization rich normative mentoring superior
4. Reward Base	commission emphasis individual bonus measurability	salary emphasis group bonus industry norms

Adapted from Kerr and Slocum (1988)

When managers from clan-type firms negotiate with managers from market-type firms, conflict is very likely to occur. For example, long-term perspective of clan-type culture can clash with short-term orientation of market-type. A purchase decision of a product can be significantly longer for a clan-type firm (e.g., group decision), while the same decision could be made within a shorter period of time or market-type firms (e.g., independent decision). It can be noted that a negotiator representing an American multinational firm practicing clan-type culture may find it easier to understand and deal with Japanese counterparts representing another clan-type firm.

It is well known that perceived similarity in basic values promotes a linkage between oneself and the other (Deutsch 1985). However, what about the situation where the entire firm, despite some variations among divisions, depends on the market-type culture control? Most American firms, knowingly and unknowingly, practice the market culture due to the simplicity and efficiency of the culture in many functionally different divisions (e.g., engineering, marketing) (Desphande and Webster 1989). There often exist difference in time, goal, and interpersonal value orientations among persons in the sales, production, and research and development department within a corporation (Terpstra and David 1985).

The challenge is that American firms may have to adopt clan culture to effectively deal with Japanese firms and it is, in theory and practice, difficult, if not impossible, to institutionalize and maintain the clan-type culture in a large firm due to the complexity associated with the hierarchical structure and the number of individuals involved; it may thus be more appropriate in small units within the company (e.g., international sales department). The "clan culturalization" of American business negotiators dealing with Pacific market will promote similarity and trust in negotiation process, and will eventually reduce negotiation failure rate. Conflict can result from lack of understanding of cultural aspects of Japanese firms on the organizational level.

A Framework of Cultural Influence on Inter-cultural Negotiation

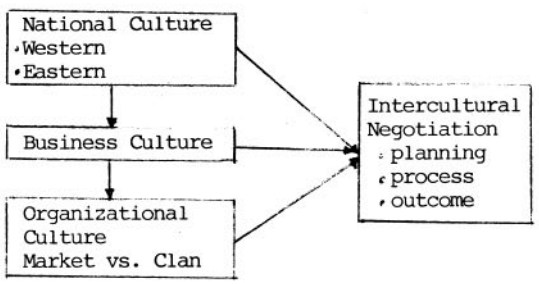
Figure 1 shows that three levels of culture (national, business, organizational) affect inter-cultural negotiation (e.g., buyer-seller). The framework suggests that national culture influences business culture which in turn shapes the organizational cultures of individual firms. National culture and business culture are hardly controllable by management decision makers since they are shaped over a long period of time and are very slow to change. These two wider types of cultures, therefore, should be monitored and studied before dealing with negotiators with these cultural backgrounds.

Organizational culture, on the contrary, can be controlled and modified, if necessary, by (1) designing different compensation packages (Kerr and Slocum 1989), (2) the non-randomness of corporate recruitment, and (3) training and attrition in corporate socialization (Schneider 1975). For example, IBM and Tandem carefully screen job applicants to ensure that that they attract individuals who will live comfortably with the corporate codes for conduct and will appreciate the kinds of rewards given for good performance (an example of clan culturalization). By contrast, Ford tends to hire broadly and let the competitve work ethic weed out culturally incompatible managers (an example of market culturalization) (Terpstra and David 1975).

The transformation of one culture (e.g., market culture) into another (e.g., clan culture) is by no means easy since organizational culture is largely constrained by wider cultures such as national culture and business cultures. Many American firms have introduced changes with no success (Ouchi 1981). Strong commitment from the top is not enough when subordinates resist a change. This resistance, however, should not deter firms' efforts to train their business negotiators to effectively deal with other corporate cultures. The fact that different parties in the negotiation process currently work in different corporate cultures does not necessarilly mean that cultures will clash and that conflict is unavoidable. Inter-cultural negotiation training, when properly designed and well executed, can promote understanding of differences between cultures and thus reduce potential sources of conflict.

FIGURE 1

A FRAMEWORK OF CULTURAL INFLUENCE ON INTERCULTURAL NEGOTIATION



Conclusions

Business negotiations cannot function outside the boundaries of organizational culture. When the boundary is extended beyond the national border, it becomes imperative to consider wider cultures affecting organizational culture: national culture and business culture. Although these two cultures are insensitive to change, they shape organizational culture which is more susceptible to change. This article defines these three levels of culture. A conceptual framework of three levels of culture and implications for inter-cultural negotiation are also provided.

Several strategies have been suggested to reduce conflict associated with inter-cultural negotiations. Because national culture and business cultures are not easily modified, the education of differences and similarities of these cultures of target nations (e.g., Japan) is recommended. Organizational culture, being easier to change, can be modified and instituted within a corporation. For example, a subsidiary of a multinational corporation in Japan can institute the clan-type culture to deal with Japanese business negotiators effectively. Recruiting, training, and reward types are recommended as variables for a change. When a transformation is not viable, education to enhance understanding of other organizational cultures is suggested as an alternative solution. In all, this article offers an insight into cultural aspects of negotiation in the international communication context.

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EXPLORING A PROPOSED TIME USE/COMMITMENT CLASSIFICATION MODEL: A TAXONOMY AND METHODOLOGY EXTENSION TO THE FAR EAST

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Abstract

This article deals with a replication and extension of the time study methodology proposed by Lindquist and Lane (1990). It is replicated in that the time log, focus group approach is used to study time use/commitment, and extended to students who had recently arrived from Japan, Malaysia and Thailand. The objectives were to further verify the potential applicability of the proposed time use/commitment taxonomy, and the research methodology associated with it, into international marketing arena. It was found to be understandable, practical and usable by the participants and the results parallel closely those of the previous study, in these new and culturally different populations. The preliminary conclusion from the research is that the taxonomy and the methodology proposed by Lane and Lindquist (1988) appear to have direct application into the Far East.

Introduction

The classification of time use by people and cultures and the levels of commitment and planning associated with them are arguably of interest across a broad spectrum of disciplines. Certainly those who study and work in the areas of sociology, psychology, anthropology and, more narrowly, consumer behavior, household economics, international trade, international marketing and the exchange theories of economics and marketing would have strong potential interest. On the face of it one could argue that different levels of time use, commitment and planning on the part of individuals will result in varying time values for these people, individually, and in the situations and cultures/subcultures in which they find themselves. This situation, according to Lindquist and Lane (1990), could have implications for better understanding and segmenting of the marketplace. Where people who place a higher value than others on certain time uses would be more likely to seek out products/services that help them find and/or better use their time. This, of course, would be partially conditioned on their cultural, subcultural, religious and family value structure regarding time (Page-Wood and Lindquist 1990). Though these authors to this point in time have confined themselves to the U.S. setting, the logic of their position points toward an international focus. Hence their suggestions concerning impact on the consumer decision process and consumer behavior study also could be extended internationally.

The initial step was taken by Lane and Lindquist (1988) in which they proposed a time use/commitment classification model. It was a taxonomy based on the production and consumption approaches found in economics (Baumol 1973, Linder 1970). The cited authors viewed time as a similar resource to income. Income was divided into three types. These were total income, disposable (after tax income) and discretionary income (after tax and basic living expenses) (Lane and Lindquist 1988). They viewed time as similarly divisible. First, there would be time used to generate monetary income. Later this category was expanded to include "in kind" goods or services income (Lindquist and Lane 1990). This was called "income producing time." These authors suggested that this time could be separated into that required to be carried out during a specific clock time period, called "obligated," and that which was not so constrained, called "non obligated." The time left over was seen as parallel to disposable income. It was postulated, and later preliminarily verified, that this latter block of time was composed of time when things "must be done" plus "discretionary time." The "must be done" time was designated "committed." The committed time was then divided into "obligated" and "non obligated" following the approach mentioned above. The discretionary time was designated uncommitted and divided into "planned" and "unplanned."

In sum, a six category classification system was theorized. These categories were: 1) income producing obligated, 2) income producing non obligated, 3) committed obligated, 4) committed non obligated, 5) uncommitted planned and 6) uncommitted unplanned.

Though initially Lane and Lindquist offered examples of activities for each of these classifications, it became evident to them that testing the system would require research participants to classify activities according to their own individual situations. Hence only definitions of the types of time in the category scheme were provided.

Lindquist and Lane (1990) then preliminarily tested the model using two university student groups of Americans. The participants were 1) asked to show understanding of the time categories, 2) to determine whether they felt that the system was reasonable and, 3) to show that they could practically categorize their own time following the suggested approach. The two student focus groups used to preliminarily test the taxonomy met the objectives. Some of the 12 members of the female student group only had trouble in classifying such things as driving, sleeping or resting, daydreaming, smoking, short duration activities, phone calls and multiple simultaneous (overlapping) activities. Some members of the 8 male student group had trouble classifying such things as "goofing around," smoking, short duration activities and multiple simultaneous (overlapping) activities. Lindquist and Lane (1990) extended their testing to seven

other American types, again using time logs and focus groups in their exploratory investigation. These groups were: career oriented women with children, career oriented women without children, working women, retired women, career oriented men (with and without children), retired professional men and retired "blue collar" men. The plan here was to take an initial look at a broader spectrum of individuals as the taxonomy was tested.

There were 63 people who participated in the groups. They showed a good understanding of the classification system. Further, it was found to be practical and they were able to classify the vast majority of their activities. There were some activity classification problems. People had questions about categorizing "driving time" and it was learned how "person- and situation-specific" this was (Lindquist and Lane 1990). Respondents generally were interested in the fact that they classified the same activity differently at different times. This allowance for perceptual-based classification is one of the unique contributions of the time use/commitment taxonomy. Some problems also surfaced with categorizing of last minute or spur of the moment activities, particularly as to whether they should be committed or uncommitted. All activities were classifiable once participants understood that each activity occurrence was to be considered separately.

The preliminary study conclusions of Lindquist and Lane (1990) were: 1) people appear to understand the time use categories proposed, 2) the time use/commitment view is reasonable, 3) individuals were able to categorize all of their own time, 4) people realize that the same activity may be classified differently under differing circumstances, 5) there is evidence that people carry out multiple simultaneous activities, called "polychronic behavior," (Lane, Kaufman and Lindquist 1989) and the time log methodology used combined with self-classification of activities appears to be "a sound way" to determine people's time use and commitment (Lindquist and Lane 1990). These conclusions will become the objectives of the research reported in this paper.

Far Eastern Extension and Replication

The time use/commitment classification system was suggested to have application in the international arena by Lindquist and Lane (1989), but they offered no empirical evidence. However, they were able to preliminarily map the findings on cross-cultural time study into the economic-time focus of their model. The works of Szalai (1966), Robinson, Converse and Szalai (1972), Boh and Saksida (1972) and Hawes, Gronmo and Arndt (1978) were considered. These scholars had based their findings on studies confined to Belgium, Bulgaria, Czechoslovakia, the Federal Republic of Germany, France, the German Democratic Republic, Hungary, Norway, Poland, the Soviet Union, and Yugoslavia in Europe, Peru in South America, and the United States. In no case were countries in the Far East considered.

It was the authors' position that a preliminary extension of the proposed taxonomy into the populations of the Far East was called for in light of the continuing growth in international trade in that direction and the attendant need for a better understanding of international markets and the behavior of the people within them. This would be particularly true if time use and commitment varied among them, potentially impacting on the value of time personally and in terms of trade. It would first be necessary to find or verify a methodology to measure varying time use and commitment before the more complex task of connecting such findings with the various facets of international marketing could be carried out. Further, because of the complexity of study within these large population groups, more exploratory work was deemed necessary.

Methodology

The Sample. The sample used consisted of six groups of students attending a medium size midwestern university. The students were from three different countries in the Far East, namely, Japan, Malaysia and Thailand. The groups assembled consisted of eight men and eight women from each country for a total of 48 participants. A convenience sampling procedure was used. It was acknowledged that the students would not be typical of the populations of their native countries. However, arguably, an exploratory study of their positions on time use and commitment, and the methodology used to measure these positions, would be useful as a first step. The findings could then be compared with those of the students raised in the U.S. as determined by Lindquist and Lane (1990).

Data Collection and Analysis. The procedure followed paralleled that of Lindquist and Lane (1990). Each of the participants kept a free form time diary for four days, two of which were weekdays and a Saturday and Sunday. They were told to keep track of all activities during the 96 hour period. Further, it was explained to the students that it was appropriate to record multiple simultaneous activities if and when they occurred. The study participants then engaged in a focus group on the day after the logs were completed. Each focus group consisted of either all males or all females from one country.

A pre-focus group questionnaire was completed by each person. It included data on demographics, major or concentration in school and level (graduate or undergraduate). Each person was then presented with the definitions of the six time use classification categories and asked to identify every activity in their log by using one of the classification codes, if possible. Then the focus group was conducted with the foreign students being asked to discuss the practicality of the classification system and its application and the methodology used to gather the data. The data from the logs and the focus groups were then content analyzed.

Results

Time Use/Commitment Categories Understandable

Members of all of the six foreign student groups, though English was their second language, gave ample evidence that they had no difficulty understanding the time use categories as explained in the definition sheets provided. None of the students were working full time, some worked part time and the majority were full time students. Hence, they noted that for almost all of them the category "income producing non obligated" did not apply. Conclusion: the student groups from Japan, Malaysia and Thailand understood the time use/commitment categories.

Time Use/Commitment Categories Reasonable

Each group was asked to comment on whether or not they viewed the time use/commitment categories as reasonable. The comments focused on being to apply these classifications to situations they regularly faced. There were no feelings expressed that the categories were other than reasonable. Conclusion: the student groups from Japan, Malaysia and Thailand expressed that the time use/commitment categories were reasonable.

Ability to Practically Categorize All Activities

Classification of All Activities. The men and women from Malaysia were able to classify the vast majority of activities, as were the students from Japan and Thailand. However, they did indicate some problem areas in classification.

Classification Problems. There were some problems for the Malaysian men when they wished to classify the same activity differently under different circumstances. This type of problem occurred for all of the other groups except the men from Thailand. It was determined that there was a need for clarification on the issue of differing classes for the same activity and when this was carried out by the moderators the problem was eliminated.

Also, among the Malaysian women it was noted by a few that classifying after the fact was hard. One of the males from Thailand suggested that classifying the activities as much as four days later could change the way a person would classify since they may not properly recall the situation as it existed earlier. Specific areas of activity classification problems were sleeping, resting, napping during studying, etc. (Thai Women, Japanese Men and Women), studying (Thai Women, Japanese Women), using the restroom (Thai Women,Japanese Women), eating and "ordinary activities" (Japanese Women). Conclusions: the students from Japan, Malaysia and Thailand were able to practically categorize all of the activities in their lives though there were certain areas where classification was more difficult. The suggestion to classify closer to actual time of activity participation was seen as excellent and a area of future testing.

Different Classifications of the Same Activities

The students in all six groups stated that they classified the same activity into more than one category over the four day period. The men from Malaysia indicated that they managed their time differently under different circumstances causing classification changes. Weekdays were especially different from weekend days. Some of this had to do with more scheduling necessary during the week with classes and other commitments. The Malaysian women pointed out certain activities that often were classified multiply. They included watching TV, studying, going for a drink (water, etc.), waking up by alarm or not, shopping and sleeping or resting. All of the Thai men found themselves multiply classifying things; areas of common mention were studying, sleeping and going to the restroom. It was interesting to note that the classification of an earlier activity might be governed by the next activity or more important next activity. The women from Thailand indicated that studying was an area multiply classified. Also getting up to go to work was different than just getting up. They also indicated that the next task or the last task may impact on classification. Also they raised the question of being committed obligated where they were happy to be so committed or not. This idea of feeling positive or negative about that to which one is committed is worthy of consideration. Conclusion: all participants indicated that they classified certain activities differently under different circumstances. Further, more important activities seem to effect the categorization of lesser support activities.

Multiple Simultaneous Activity (Polychronic Behavior)

When asked whether they did more than one thing at any time during the four day period, all said they did. They were then asked to indicate the maximum number of simultaneous activities they had logged. The distribution is as follows:

	Number of Simultaneous Activities			
Group	2	3	4	5
Japanese Men	2	3	3	0
Japanese Women	5	0	2	1
Malay Men	1	1	4	0
Malay Women	0	3	4	1
Thai Men	6	2	0	0
Thai Women	1	4	1	2

Conclusion: there is evidence of polychronic behavior among the participants in the study.

Time Log - Focus Group Methodology Applicability

The same positive feedback was received from these foreign students on the usefulness and understandability of the time logs as had been

received among Americans by Lindquist and Lane (1990). The suggestions for change were similar to those in the past. It was found that people who appear to be more structured or scheduled in their lives would rather see more vertical and/or horizontal lines in the logs. Those who are less so are happy with the near blank pages with their minimal time division clues. There was a suggestion to have the color of the page different for each day. Also, those who appeared to be more structured asked for activity classifications and more precise time blocks. Conclusion: the time logs seem to be working as well among the student respondents from the Far East as they worked previously among American students.

New Findings

The suggestion that the time use/commitment classification system should include subcategories within the "committed" time category may have merit. Often people are committed to doing things that they really do not wish to do. Arguably, this commitment could be made by the person in question for various monetary, social, psychological, physical or other risk reducing reasons. Further, a person may be committed to do something, not desired, by another person within a family, group or organization. It was the Thai female and the Japanese male groups that specifically brought this up, but it was also detected in various other groups. Possibly this feeling may be related to the traditional sense of heavy obligation that exists among many orientals because of their family, cultural and/or religious roots. However, the suggestion also has face value for people in other cultures who regularly find themselves unknowingly committed to some activity against their desired position. One could propose, for example, that especially among orientals, there would be more self-commitment (the need to entertain, "make tea," etc.) even though the feelings associated with the activity may be negative.

Conclusions

When comparing the results of the six focus groups of Far Eastern students studying in this midwestern university with their American counterparts in the university used in the Lindquist and Lane (1990) exploratory research, the results are parallel. In both cases the students understood the time use categories, they saw the taxonomy as reasonable and practical and they were able to categorize the vast majority of their activities without difficulty. The foreign students also recognized, as did their American counterparts, that the same activity could be classified differently from person to person and from situation to situation. This also brought more into question the time research of the past where participants were forced to classify an activity in only one way. There is also preliminary evidence of polychronic behavior among the Far Eastern students in the study as was found in the earlier Lindquist and Lane (1990) work. Finally, the Far Eastern groups found the time log - focus group methodology as understandable as did their American peers. The case for the Lane and Lindquist (1990) time use/commitment classification system and the methodological approach they followed was strengthened.

Implications

The authors will be the first to acknowledge that the sample studied is not representative of the populations of their native lands. To further compound the problem, the students from Thailand were almost exclusively from Bangkok, which is itself very foreign from the rest of the country. Additionally, there was a mix of graduate and undergraduate students across groups, not within them. The students were, in many cases, from more advantaged families and, on average, were older than their full time student American counterparts. However, they were, arguably, of the middle to upper middle classes, the trading and marketing sensitive classes of their homelands. Though this was exploratory research there is still concern over these matters.

There is a need for further verification of the Lane and Lindquist (1988) time use/commitment model. The research raises the question of what the impact on consumer behavior would be when people find themselves "committed" to some activity with varying levels of positive or negative feelings about it. Also, what is the impact of commitment being made by the person himself/herself or some other person? These questions also may be applied to the uncommitted and income producing categories of the taxonomy.

Additional research is necessary in the U.S. and the Far East and other places on the globe to verify the proposed taxonomy. Research is also necessary to see what impact this will have on an individual's valuation of time and the products and services he/she demands. One can see how this would be extremely complicated in its execution as one moves within countries, cultures and subcultures with all of their potential variations. Yet this is worth pursuing to better understand the often confusing vagaries of international marketing and trade which are found. Arguably, they are caused by the differences in consumer and organizational behaviors as peoples and groups respond to varying levels of time importance in their lives, and their planning and daily living horizons. This was seen even among the students who were from countries more "Westernized" versus their friends from the developing nations. Consider the contrast potential for the people from Thailand who are 95 percent Buddhist versus their trading partners from Malaysia who are predominantly Muslim. There visions of time and how they fit into the eternal scheme of things presents potential problems in trade and understanding (Page-Wood and Lindquist 1990). Our orientations to time, our horizons, how we are synchronized with our international trading partners, how valuable time is to us all potentially impact on our ability to be

successful in the international marketing arena. Hence continued study along the course set by Lane and Lindquist (1988, 1990) is called for.

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PRIVATIZATION IN DEVELOPING COUNTRIES AND THE MARKETING IMPERATIVE

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Abstract

Privatization is a world wide trend with significant implications for developing countries. Most of the literature on this topic has focused on the financial aspects of privatization with little regard to the marketing aspects. Concern of privatization can be accomplished through the use of carefully constructed programs, particularly those which aim at gaining the cooperation of various participants in the transition phase of the privatization process.

With a full page advertisement in the Wall Street Journal on September 30, 1991, in an obvious bid to attract foreign direct investors, the government of Pakistan promoted one of the most sweeping programs of economic reforms in the history of that country. A linchpin of these reforms is "privatization on a massive scale" with the government declaring their intent to sell off state owned enterprises ranging from firms in the service sector such as banks, insurance companies, hotels, telecommunications to manufacturing plants in textiles, pharmaceuticals, chemicals, cement and farm machinery amongst others. This is just one of many developing countries marked by an unprecedented surge of privatization efforts in recent years. Country after country in acts of privatization - mainly those of transference of public assets to the private sector - seem to be racing to divest themselves of government owned enterprises. While only the tip of the iceberg, consider the following examples:

* Togo wants to sell more than a quarter of its state owned enterprises.
* Sri Lanka has turned its bus system over to private hands, textile mills have been sold to private entrepreneurs and state owned enterprises in fertilizer, tobacco and packaging have been designated for sale.
* In Bangladesh, banks, textile mills, newspapers are being sold and government owned banks are on the block.
* Malaysia is rapidly privatizing their telecommunications sector, airlines among numerous other state enterprises.
* Thailand has begun to privatize its electrical utilities, airlines and parts of its transportation system.
* In the Philippines, a major privatization program is underway as banks, paper mills, banana, sugar plantations and many others are earmarked for sale.
* Mexico, Brazil, Argentina, Honduras have embarked on an ambitious program of divestment of public sector enterprises.

(Aylen 1987; Ali 1989; Bowring 1991; Lim 1985; Journal of Commerce 1986; Robbs 1987; Young; Plionis 1990)

In Africa, privatization is being undertaken across the continent with commitments to do so in countries like Kenya, Nigeria, Zaire. In Tanzania, perhaps the most avid socialist state at one time in Africa, privatization is being recommended by the government in response to the failures of their socialist programs, including the inefficiencies of their public sector enterprises. Countries with capitalistic inclinations are underscoring their commitment to the free market by selling state enterprises. Taiwan, For example, is selling equity in its steel, shipbuilding and chemical operations.

Some of these developments are not as widely publicized, taking a backseat to the more dramatic political developments in Eastern Europe. Here again in countries that are unburdening themselves of socialist ideology, many are about to embark on ambitious privatization programs to revitalize ailing state enterprises. Such significant privatization efforts, at a breathtaking pace, have the potential to bring about unprecedented change in the conduct of business and marketing practice in these areas.

Most of what has been written has focused on the economic and financial requirements and implications of privatization (Jones 1982, 1990; Lacey 1990; Pfeffermann 1988; Yarrow 1986). This paper briefly reviews the background of privatization efforts, the benefits and problems, and suggests as a central theme that privatization programs are less likely to succeed unless careful and considered attention is given to developing a marketing orientation by participants in the process.

Background of Privatization

This "sudden" interest in privatization in developing countries is because of many different events, not only in the disenchantment with socialist philosophies but in the general view that government enterprises have been unable to reach either economic or social objectives. Tracing this development chronologically, in the 60's and the 70's, there was a rapid expansion of the public sector mainly because of perceptions that private industry was not responding to the economic and social aspirations of the developing countries. In addition, the perceptions of exploitation by multinational enterprises in their midst, with the spectre of industrial dominance, technological and economic dependence and natural resource exploitation, led many of the developing countries to nationalize and expropriate firms or to organize them under the aegis of the public sector (Vernon 1988; Hemming 1988). One argument was that scale economies needed for the efficient development of the infrastructure and provision of essential goods could only be attained through state owned firms, because of underdeveloped capital markets needed to support private enterprises.

Perhaps more as a reflection of nationalistic sentiments than ideology, right and left wing governments alike set up state owned enterprises (S.O.E's). Perceptions prevailed that,

with political controls and government oversight, such S.O.E.s would also be more responsive to social needs. World agencies such as the World Bank and others were not incidental to the process, encouraging and recommending the development of public sector enterprises.

By the 1980's, state owned enterprises accounted for a significant percentage of the gross domestic product in certain developing countries in Asia, Africa and Latin America ranging from between 25-50% in transportation and communications, between 5-25% in manufacturing and 75-100% in the electricity, gas, water utilities. (Aylen, 1987)

As the size and scope of these enterprises grew, so did their appetite for consuming domestic and foreign capital that came in the form of assistance from overseas. At the same time, these enterprises were flowing in red ink, with massive losses and making increasing demands for state support to shore them up. In the developing countries, state owned firms were especially marked for their managerial incompetence, "leakages" of revenue into the pockets of corrupt managers, and lack of attention to improving efficiency. All this, while these enterprises were universally viewed as practically ineffective in reaching social objectives such as equitable provision of goods and services at reasonable prices.

With mounting debts in the developing countries, the continuing burden of supporting state owned enterprises was further exacerbated as foreign lending was less forthcoming, not as much for ideological reasons as for the simple reason of less available capital in the developing countries. At the same time in the 80's, international agencies such as the World Bank, the International Monetary Fund, the Asian Development Bank and the U.S. Agency for International Development, took ideological and practical stances promoting privatization. (Plionis 1990; Hemming 1988; Economist 1978) For one, the World Bank pointed to the massive appetites of public sector firms to consume capital with no improvements in their operations (Babai 1988). Privatization became a requisite for further assistance from these agencies particularly in the case of less developed countries whose rescheduling of debts requests were faced with demands to promote privatization in their respective countries. With a budgetary crunch and less assistance forthcoming from external sources, many developing countries viewed privatization - through selling of public assets - as a way to immediately raise money. At the same time the domino style tumbling of socialist governments further dramatized the failures and excesses of government controlled enterprises and global movements towards adopting capitalistic, free-market mechanisms, strengthened calls for privatization.

Benefits of Privatization

Countries expect many benefits from privatization. Foremost is the hope that many of these sick enterprises will become efficient once they are run by private entrepreneurs. The latter have personal capital at stake, are accountable to stockholders, held responsible for their decisions as their career mobility and indeed survival may depend upon their performance and that of the firm. Such technocrats would be in sharp contrast to government bureaucrats with job security who have little to lose (or gain) if the enterprise does badly (or well). Compensation and benefits linked to managerial performance could increase efficiency and benefit consumers from lower prices on goods and services.

More efficient, profitable enterprises could then contribute to governmental revenues, widen the tax base, and this could then be used to provide support for remaining governmental programs. Additionally, this would assist in developing a capital market with greater participation by the general public as they "buy into" these privatized firms. Such participation would infuse fresh capital into the economy and aid in the development and expansion of firms.

Perhaps a prime motivation for disinvestment has been that governments may see this as a quick way to raise badly needed capital in their debt-ridden countries, particularly as foreign investors are approached to purchase shares in these enterprises. Therein lies a major problem. While in the short term, there might be quick access to funds through sales of these enterprises, the long term implications may not be considered in the drive towards privatization.

"Problems" of Privatization

The act of privatization is simply not sufficient to realize the above mentioned benefits. Selling public enterprises to private entrepreneurs will not naturally result in efficiencies. For one, a major reason for bringing enterprises under state control was the belief that scale economies in operations are necessary to lower costs for certain sectors such as telecommunications, transportation systems and the like. If such scales of operation are to be maintained, then the government is inclined when it sells the operation to continue allowing a monopoly in that sector albeit private in nature. And a private monopoly may not be much different in lowering prices for consumers even though their operational costs may be lowered through efficiencies. In addition, there is little incentive for either domestic or foreign investors to take on a losing operation unless given some attractive incentives. Many governments may, in order to entice investors, indicate their willingness to allow monopolistic privileges. For example, one of the major concerns that has been expressed in Pakistan, which is not unique in this regard, is that the state owned enterprises would be purchased by the same major business houses in Pakistan that were held largely responsible for extracting monopolistic profits. The perceptions of exploitative profits contributed to nationalization of these firms by the government in earlier decades. This is not only an ideological argument but is also practically underscored by the fact that major business houses have consistently paid only a fraction of taxes due and have not declared dividends (Ali 1991). The latter also undermines the position that privatization would nurture the

development of a capital market. While widespread corruption by government bureaucrats in many developing countries is endemic, yet such "leakage" of revenues can and does occur in private enterprises as profits are skimmed and hidden from governmental tax authorities (Khan 1991).

Moreover, a major rationale for organizing enterprises under the aegis of the state has been to attain other social objectives. In the developing countries, these have been linked to political goals. For example, state owned enterprises have been used to reduce massive unemployment in developing countries. Such motivations have led often to a bloated managerial and labor workforce in these firms resulting in low productivity. In the process, labor unions have become very powerful demanding and getting higher wages and benefits while governments for obvious political (and social) reasons have appeased these groups. Privatization, is one way of downsizing these firms, breaking the stronghold of intransigent trade unions. It is also a mechanism of shifting the responsibility to do so from the government to private operators. In the "new" privatization environment, the government has to indicate the political will to facilitate such changes otherwise the expected efficiencies are questionable. Similarly privatization efforts in countries like Kenya, Malaysia, Nigeria have been inhibited and stalled as governments in these countries have been politically disinclined to allow firms to pass into the hands of certain racial and ethnic groups - Asians and the Kikuyu in Kenya (Callaghy 1988), Chinese in Malaysia, and southern tribes in Nigeria (Vernon 1988). These are the groups that may have the financial wherewithal to takeover and run the enterprise but are also the brunt of strong internal resentment for their increasing business strengths and dominance in industrial and commercial activity. Overwhelming political considerations have stymied the privatization effort and there needs to be a clear recognition as well as willingness to cope with such political/social ramifications if the economic benefits are to accrue through the privatization effort.

Here it should be noted, that unless the contextual conditions under which privatization takes place are not changed, privatization efforts may not only prove futile, but also result in disenchantment with privatization.

The common stereotype that prevails of the state enterprise as inefficient and wasteful may have to do more with the nature of government - corrupt, condoning corruption, nepotistic - using the public enterprise for self-serving political goals. As Vernon points out in reviewing the performance of state owned private enterprises "where governments have been reasonably competent and responsible and where comparisons between private enterprises and state owned enterprises have been possible, the technical performance of state owned enterprises has not appeared much different from that of private enterprises (Vernon 1988). While some researchers have suggested that the private sector has higher performance levels (Borcherding 1982) the issue is far from resolved.

Perhaps more as a reflection of the inherent problems of non-comparability because of widely diverse characteristics, reviewers looking at the same firms come up with divergent conclusions about performance (Millward 1982; Yarrow 1986). One contributory reason for such differences in performance is because of differences in business orientations. Aylen (1987) contrasts the Pohang Steel Company in South Korea (POSCO) public enterprise with the Steel Authority of India (SAIL). The former is markedly different in that it is responsive to market needs, technically superior, profitable, and a low cost producer while the latter, with antiquated equipment, unresponsive to technological requirements and market changes, and protected from imports is inefficient and low in productivity. Selected illustrative examples from more advanced countries such as U.K. used to support the case for privatization (Austin 1986) become less meaningful, because as compared to the developing countries in Asia, Africa, Latin America, the U.K. has had a more competitive environment to spur efficiencies. (Kay 1986a; 1986b) This underscores the view that changes in efficiencies cannot be simply suggested as the consequence of a change in ownership, but there has to be a difference in business philosophy and outlook - a competitive market and marketing orientation.

Setting aside social objectives, economic gains can be secured when privatization is accompanied by liberalization encouraging competition, forcing companies to be subject to market discipline and financial rigor resulting in both productive and allocative efficiencies. Social objectives of delivering quality and reasonable prices can be achieved in this process while other social goals can be facilitated by the revenue generated through appropriate and reformed taxation policies.

The need to achieve such long term objectives are presently subservient to the immediate requirements of the developing countries involved in privatization - that of being able to quickly raise much needed capital and the pressure by lending agencies who demand privatization as a condition for providing financial assistance. As a result much of the focus has been on the financial aspects of privatization. There are abundant discussions on methods for the valuation of assets, case studies and commentaries on undervaluation (and overvaluation), the lack of developed stock markets, the availability of domestic capital as well as processes to attract foreign capital and the administrative complexities of managing the privatization effort (Ashworth 1984; Aharoni 1986; Hammer 1989; Slavich 1987; Aylen 1987) but little discussion on the marketing requirements that would be critical in realizing privatization objectives. Selling off assets may alleviate problems in the short term of responding to the urgent debt problems of the developing countries and quickly generating capital but for longer term needs, a concerted privatization program should to consider the appropriate accomplishments of long-term objectives.

Transition to success in Privatization

This euphoric drive towards privatization may turn out to be a resounding failure. Even now there are grumblings about selling the family silver. (Brown 1983; King 1987) The success of privatization largely depends on the objectives sought and the willingness of key groups to participate in the transition process. At the outset, the two most influential parties involved would be the government bureaucrats including those threatened by the process and potential investors including firms within the private sector. Two other groups may also be critical in the process, the public at large represented by various activists or voluntary organizations, such as consumer lobbies and external organizations including international agencies like the World Bank that may have an expressed interest in the process of privatization. It is proposed here that although many factors contribute to the success of privatization efforts, targeted marketing efforts to these groups and by them are essential factors in accomplishing a successful transition. Recognizing the importance of the impact of these influential groups, a conceptual framework is suggested to help identify efforts that may be critically needed.

FIGURE 1

Perceived Ability to Accomplish SOEs Prime Objective	Degree of Willingness of Private Sector to Participate: High	Low
High	Quad 1 Good Fit	Quad 2 Lack of Fit
Low	Quad 3 Lack of Fit	Quad 4 Lack of Fit

Two major components constitute the framework shown in Figure 1.

1. The ability of the private sector to accomplish the objectives of state owned enterprises as perceived by government officials involved with the process of privatization.
2. The extent of willingness of the private sector to participate in the process of privatization of these enterprises.

Perceived Ability to Achieve SOE Objectives

The government may declare privatization as a national policy, but that would not necessarily lead to cooperation by bureaucrats and public managers who are charged with the responsibility of implementing the conversion of various state owned enterprises to private enterprises. Reluctance by government officials who run state owned enterprises to relinquish control and authority, may further complicate this process notably in developing countries lacking appropriate political institutions and governing bodies. Nevertheless, objections to the process can be lessened if concerned officials perceive that prime objectives of the public enterprise could be accomplished by the private sector. The major identifiable objectives that governments may have sought through state owned enterprises are identified below in Figure 2.

Figure 2

Prime objective/ rationale for State owned enterprises	Typical industries/categories
* Socially motivated/ Quality of life	Hospitals, Pharmaceuticals, Recreational Parks, Sewage, Treatment, Housing, Garbage Collection, Public Safety
* Control	Defense, Steel, Natural Resource Industries (e.g. coal, oil, and gas), Print, Radio and TV Media
* Service	Transportation, Postal Service, Telecommunications, Educational Institutions, Training Institutions
* Revenue	Revenue Departments, Taxes, Tolls, Tourist Industry
* Efficiency	Utilities (gas, water, electricity), Transportation (airlines, railways, buses)
* Technology transfer	Manufacturing/Assembly, Shipbuilding, R & D Agencies, Industries (e.g. Electronics, Autos)
* Stimulating economic Growth	Highways, Banking, Credit Institutions, Construction Companies, Industrial Parks, Cottage Industries

Extent of Willingness of the Private Sector

Privatization would not happen without an active interest and the willingness of private entrepreneurs, investors and firms to participate in this process. To a significant degree this would be determined by perceived levels of attractiveness of public enterprises offered for takeover. It is important to recognize that in many instances the level of attractiveness is influenced by a subjective assessment of SOEs and may have little correlation with the actual potential for returns/rewards. This is because assessing such potential is more difficult in developing countries due to the lack of proper accounting procedures and objective evaluation methods.

Referring to Figure 1, the process of privatization may be easier if there is a match, that is, there is a high degree of perception among public officials that privatization would accomplish the purpose set out by the SOE as well as a high degree of willingness of the private sector to participate in the takeover of the SOE. This is because both parties may develop a genuine interest in ensuring the

successful conversion of an SOE to that of a private sector firm. While this may not guarantee success, it would be the first enabling condition in the process. By the same token there would be a lack of fit if either the perceived likelihood of accomplishing objectives is high and degree of willingness is low (Quad 2) or vice versa (Quad 3) or when both of the above two factors are low (Quad 4). These last three situations may severely impede the initial process of privatization. In these situations marketing can play a critical facilitative role. Marketing initiatives could be activated by four interest groups. These could be described as 1) Private sector activated marketing campaigns, 2) Government activated marketing campaigns, 3) Consumer activated marketing campaigns and 4) External foreign groups activated marketing campaigns. In quadrant 2, the government believing that privatization would lead to achieving goals originally set out to accomplish through SOE's could conceivably pursue an active campaign to convince the private sector that the takeover of SOE may lead to long-run profits and potential not apparent at the present time. External foreign groups such as the IMF could also help in making the proposal of a takeover more attractive by offering financial support. Similarly in Quadrant 3, there would be a need for firms in the private sector to take the initiative in persuading government officials that they can accomplish SOE's prime goals through privatization while providing additional benefits. In Quadrant 4, it may require consumer activists to demand from both the private sector and governmental organizations to move an SOE towards privatization considering that they have not been successful in accomplishing the goals set out or have had marginal performance.

Transition and Post-Transition Strategies

The private sector during and after the transition to privatization, has to be continually mindful of the original objectives of the SOEs as they pursue their own goals. Additionally, many of those newly privatized companies will have to turn from being "production oriented" to "marketing-oriented". This would require the adoption of marketing concepts and strategies that have been alien to state enterprises in the developing countries. Many of these enterprises have enjoyed up to now a virtual state controlled monopoly over the provision of goods or services and with no alternatives for customers, marketing was virtually ignored. Private entrepreneurs who ran successful firms in many of these developing countries also were sheltered from competition and granted monopolistic privileges in the form of sole manufacturing licenses, tariff quota protection and the like. The changed competitive environment would require carefully constructed marketing programs that would assist in improving the long term prospects and positions of such firms. Consideration also needs to be given to transitional macromarketing strategies that would assist in meeting government goals. These strategies would be necessary to stimulate exports, attract foreign direct investment and secure acceptance and legitimacy for privatized firms. Various micromarketing strategies such as market segmentation, product positioning, diversification and marketing mix adjustments would also be needed by the enterprise undergoing privatization.

Conclusion

Privatization is a significant worldwide trend; however it is an experiment for which the results for developing countries still remain unclear. Many indeterminate factors and events can contribute to its success (or failure). However, as developing countries choose this road for achieving their economic and social aspirations, there is a clear need for cooperation and acceptance by the participants of the process. Without this, a decade or two from now we might witness calls for a reversal.

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A CROSS NATIONAL STUDY OF ADVERTISING'S EFFECT ON THE SAVINGS RATE

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Abstract

This study presents an empirical examination of the effect of advertising on the personal savings rate in 30 nations. After identifying conceptual and methodological concerns in previous studies, a structural model is developed. The model is operationalized using secondary data sources and estimated using Partial Least Squares. Results suggest that long term exposure to advertising does not reduce the personal savings rate.

INTRODUCTION

For many years the macro-effects of advertising have been discussed in scholarly works. The discussion has generally followed two closely related themes, the macro effect of advertising on the economy and concerns about the ethical implications of these effects. Unfortunately, conflicting empirical results regarding the unintentional economic effects of advertising have limited our ability to evaluate the ethical implications of those effects.

The a priori proposition that advertising positively affects aggregate demand was first suggested in the wake of Keynes's General Theory by Neil H. Borden in the 1940's (Borden 1942). This suggestion led economists to the logical extension that the counter-cyclical regulation of advertising expenditures would promote economic stability (Hansen 1960). If advertising does indeed cause a nation's consumers to spend income they might otherwise save, the regulation of advertising would be a powerful tool for public policy in stimulating a sluggish economy and dampening an overheating economy.

In 1967, John Kenneth Galbraith popularized the ethical concern that advertising created wanton materialism by convincing a society that acquisition was the key to gratification (Galbraith 1967). In Galbraith's view, advertising is much more than a communication system that facilitates the distribution of goods; it is also relentless propaganda on behalf of goods in general. Although this view depended on the still unproven assumption that advertising increased a nation's consumption, it sparked deep ethical concerns regarding the unintentional effects of advertising on society.

Considering the interrelatedness of the two areas of concern, the study of the unintentional economic effects of advertising is necessary to address both the economic and the ethical concerns about advertising and society. Although numerous studies have attempted to examine these economic effects over the past 40 years, theoretical and methodological difficulties have led to mixed results. It has been argued that this question represents the core unresolved issue in the study of macro effects of advertising (Jacobson and Nicosia 1981; Quarles and Jeffries 1983).

This study presents a reexamination of the unintentional economic effect of advertising on the personal savings rate. Drawing on theory from economics, as well as marketing, a macro level model of personal savings is developed. The model is operationalized with data from 30 nations and the validity of the model is examined using the Partial Least Squares (PLS) statistical technique.

BACKGROUND

Numerous studies have examined the unintentional economic effects of advertising on society, with mixed results. Considering that in-depth reviews of these articles exist elsewhere (See Jacobson and Nicosia 1981), only specific aspects of these studies will be discussed here. Specifically, previous empirical research will be examined with regard to their theoretical foundations, their data, and their use of statistical methods.

Theoretical Foundations.

To date the vast majority of the studies examining this issue have examined the economic effects of aggregate advertising on national consumption (Ashley, Granger, and Schmalensee 1977; Ekelund and Gramm 1969; Jacobson and Nicosia 1981; Taylor and Weiserbs 1972; Peel 1975; Quarles and Jeffries 1983; Schmalensee 1972). Although the unintentional economic effect of aggregate advertising, if it exists, must come through the consumption function, the detrimental effect of advertising on the economy is from reductions in the personal savings rate. Permanent reductions in the savings rate will lead to a reduction in the absolute level of sustainable growth in an economy (Poindexter 1981).

In the world of neoclassical economics, the consumption and savings rate are mirror reflections of each other and the selection between them is trivial. However, in a world containing transaction costs, measurement error and random error, the two no longer perfectly reflect each other. This separation can be seen in Taylor and Weiserbs (1972) conclusion that advertising does not affect aggregate consumption, but does significantly affect aggregate personal savings. As such, the macro level detrimental effect of advertising should be directly examined relative to the savings rate, with the recognition that any effect comes through the consumption function.

A second theoretical foundation of previous research that must be questioned is the a priori exclusion of wealth effects. Economists have long recognized that the level of per capita wealth positively affects the desired amount of consumption from current disposable income (Freidman 1957; Ando and Modigliani 1963). However, no studies examining the macro-effects of advertising on aggregate consumption have a priori included wealth effects in their analysis, although a number of studies have suggested wealth effects as a post hoc explanation for results (Ashley, Granger, and Schmalensee 1977; Jacobson and Nicosia 1981).

Excluding an explicit treatment of wealth effects from the analysis introduces the possibility of bias in previous results. If wealth is correlated with the aggregate level of

advertising, the observed relationship between advertising and consumption will be biased. By cursory examination of data on wealth and advertising, it is apparent that this possibility needs to be addressed.

Data.

Almost all previous studies examining the macro-effects of advertising have used time series data from a single nation, usually the United States (see Quarles and Jeffries 1983, and Peel 1975, for notable exceptions). Although the quality and availability of secondary data for the United States may require its use for some model formulations, exclusive reliance on a single data set increases the likelihood that social, cultural and/or institutional factors specific to the United States might contaminate conclusions derived from aggregate results.

Although the optimal solution to this difficulty would be to explicitly model the social, cultural, and institutional factors that moderate the macro effects of advertising, these factors are diverse and largely difficult to quantify. A second best solution would be to use a multi-national approach (Quarles and Jeffries 1983). Although this approach would not remove the threat of these factors limiting the generalizability of results, the use of a multi-national approach in conjunction with previous results allows additional insight.

A second concern that has been raised with regard to the data used in previous studies is the almost universal use of annual data to detect causal relationships between advertising and consumption (Jacobson and Nicosia 1981). Although data availability largely requires the use of annual data, Jacobson and Nicosia argue that annual data do not allow for the detection of a within-year relationship. Citing Clarke's (1976) results that a large percentage of advertising's micro level impact occurs within a year, they argue that the inability to examine short-term effects with annual data seriously flaws previous studies.

However, when the issue is the macro level effect of aggregate advertising on society, the welfare loss to society will be from long term, structural changes in the level of aggregate personal savings. Short term fluctuations in the level of savings do not reduce the level of sustainable growth in the economy and do not reflect the unintentional effects of aggregate advertising on society. Therefore, the use of annual data is completely appropriate for the study of this issue.

Statistical Methods.

Considering the almost exclusive use of secondary data from the United States in previous studies, the incremental contributions to knowledge, and possibly the conflicting results, are predominately due to the application of successively more sophisticated methods of examining the data. A brief survey of the statistical methods used in previous studies clearly shows this progression.

The studies addressing this issue before 1969 (Borden 1942, Blank 1962, Yang 1964) relied on graphical analysis to examine the macro effects of advertising. These early studies concluded that advertising appeared to vary with the business cycle when lagged the appropriate amount. In 1969, Verdon, McConnell and Roesler (1969) calculated correlations between advertising and GNP and thereby introduced the first use of statistical procedures to examine the issue. Although their timing and amplitude tests confirmed that lagged advertising expenditures are procyclical, the significance of their correlation results is uncertain. In addition to the inability of correlation analysis to examine issues of causation, their use of correlation may have resulted in large, but spurious, correlation coefficients considering that two uncorrelated processes containing large autocorrelations will appear correlated.

Ekelund and Gramm (1969) attempted to examine the causal effects of advertising by regressing personal consumption expenditures on current and lagged advertising expenditures. The results from this approach were mixed and heavily dependent on the specification of the lag structure. This lead to the conclusion that intervening factors which influence both consumption and advertising may have confounded their results and they called for a more structural approach to modeling the macro effects of advertising.

Taylor and Weiserbs (1972) began the approach to a more structurally oriented model by using a two stage least squares procedure. After analyzing a series of models with different independent and dependent variables, they concluded that advertising did not affect consumption but did significantly affect savings. Although many researchers have taken the Taylor and Weiserbs study to be definitive (e.g., Comanor and Wilson 1974), others have raised doubts about the a priori justification of many of their model specifications (Jacobson and Nicosia 1981).

Schmalensee (1972) and Peel (1975) also addressed the issue using regression based models. Using data from the United States, Schmalensee concluded that the direction of causation ran from consumption to advertising, while Peel, based on data from England, concluded that advertising caused consumption. It is unclear whether these divergent results were due to model misspecifications (Jacobson and Nicosia 1981), or the different data sources.

Jacobson and Nicosia (1981) moved away from regression based structural models in their use of both Sims's methodology (Sims 1972) of examining time ordered relationships and the Pierce-Haugh technique (Pierce and Haugh 1977) of cross-correlating filtered data. Their results from these two tests tended to agree and indicated relationships between both past advertising and consumption, and past consumption and advertising. They concluded that wealth effects may have led to these mixed results.

In the most recent study to date, Quarles and Jeffries (1983) returned to a more structurally oriented approach through the use of path analysis. Using international data and proxy indicators for key variables, they found no support for the belief that advertising created consumption. However, the measurement properties of their proxy indicators, such as energy use as a measure of industrial development, may limit the validity of their results.

Although this progression from graphical methods to more sophisticated structural methods has left us with a trail of divergent results, it seems apparent that as each new method is applied, some of the difficulties of preceding methodologies are overcome. Methodologies have predominately progressed toward the necessary structural examination of the issue and have gradually overcome many of the serious statistical artifacts that are present. However, the simultaneous consideration of measurement issues within a structurally oriented approach has yet to be addressed.

Summary.

By closely examining previous research regarding the unintentional economic effects of advertising, the following conclusions are reached:

1. The majority of studies have examined the effect of advertising on consumption, although the true welfare loss to society would be due to permanent reductions in personal savings.

2. Although wealth effects have been mentioned post hoc, the results of previous studies may be biased by not a priori including wealth effects.

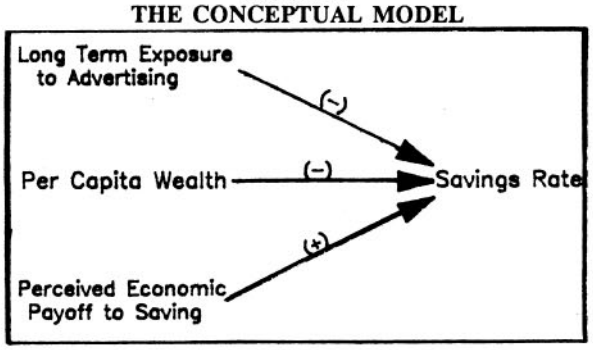
3. The vast majority of studies have used annual data from the United States, resulting in the possibility that social, cultural and/or institutional factors may be confounding the aggregate results.

4. Although the statistical methods have progressively become more structural and have overcome many of the serious statistical artifacts found in earlier studies, the simultaneous consideration of measurement issues within a structural approach has not been addressed.

THE CONCEPTUAL MODEL

The conceptual model that will be used to examine the macro-effects of advertising in this study is presented in Figure 1. Although the effect of advertising, if it exists, will be through the consumption function, its detrimental impact on society is due to reductions in the rate of personal savings. Therefore, this study examines the macro-effects of advertising with respect to the savings rate, allowing a more direct examination of the unintentional consequences of advertising.

FIGURE 1
THE CONCEPTUAL MODEL



Throughout the development of thought on savings, the importance of perceived economic incentives to save have been stressed. In the aggregate, people are believed to be more willing to postpone current consumption in favor of future consumption as the perceived payoff to postponement increases. As the perceived economic payoff to savings increases (decreases), the rate of savings should also increase (decrease). This leads us to the first hypothesized relationship in the model.

H1: The perceived economic payoff to savings will have a positive effect on the savings rate.

In the late 1950's, the concept of wealth was introduced into the savings function. The conceptual basis of including wealth in the aggregate savings function is the life-cycle model and the related permanent-income theory of consumption, where individuals attempt to distribute their financial resources so as to achieve an even level of consumption over a lifetime (Freidman 1957). As the individual's wealth increases, they are more likely to consume more of their current disposable income. In the aggregate, as the per capita wealth of individuals increases, the rate of savings from current disposable income will decline.

H2: Per capita wealth will be negatively related to the savings rate.

Advertising's macro effects on the savings rate, as hypothesized by Galbraith and others, is to reduce the level of personal savings by altering individual's desire to postpone current consumption. This line of reasoning suggests that advertising's effect is a longer term structural change in the desires of individuals due to the continued exposure to advertising over time. This leads to the final hypothesis that will be presented.

H3: Long term exposure to advertising will have a negative effect on the savings rate.

MODEL OPERATIONALIZATION AND DATA SOURCES

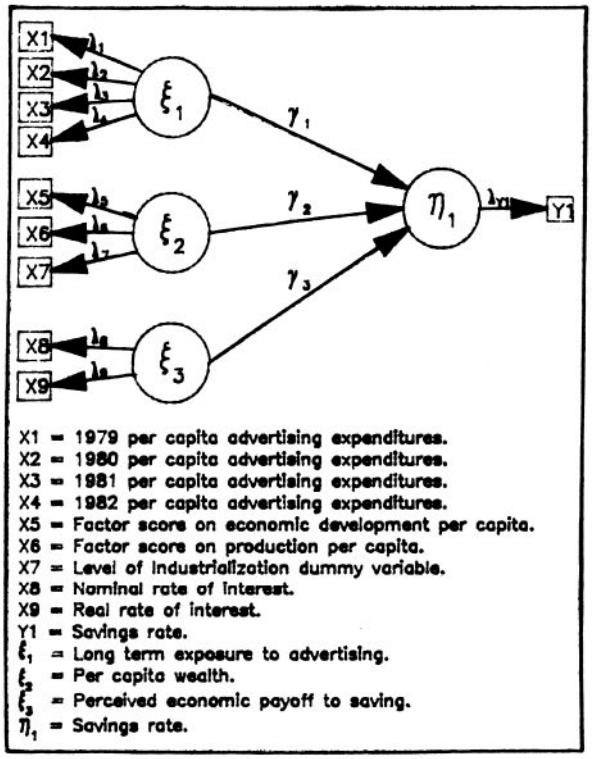
In order to minimize the possibility that social, cultural and/or institutional factors unique to a single nation will confound the results of this study, data from multiple nations will be used. However, the paucity of international secondary data places some constraints on the operationalization of the conceptual model. Most notably, the lack of consistent time series data for multiple nations requires a cross sectional approach in operationalizing the conceptual model. Therefore, all measures are cross-sectional for the year 1982 unless otherwise indicated. The operationalized structural model is presented in Figure 2.

The savings rate is operationalized using a single measure, the ratio of personal saving to disposable personal income. Data on personal savings and disposable personal income were obtained from the United Nations Yearbook of National Accounts for 1984.

The perception of the economic payoff to savings is operationalized using both the nominal and real interest rate. Under the assumptions of perfect information found in neoclassical economics, the perception of economic payoff is fully captured in the real rate of interest for personal savings. With the relaxation of the perfect information assumption, individuals may not know the current and future levels of inflation, and /or may not fully account for the impact of inflation when determining the real rate of interest. As such, both the nominal and real rate of interest are used as measures of the perceived economic payoff to postponing current consumption for future consumption. Data on the nominal and real rates of interest were obtained from the United Nations Yearbook of National Accounts for 1984.

The per capita wealth construct was operationalized using three measurements obtained from two different sources of secondary data. Two of the measures were obtained from a detailed study conducted by Ginsburg, Osborn and Blank (1986) on the wealth of nations. One of these measures is a

FIGURE 2
OPERATIONALIZED STRUCTURAL MODEL



X1 = 1979 per capita advertising expenditures.
X2 = 1980 per capita advertising expenditures.
X3 = 1981 per capita advertising expenditures.
X4 = 1982 per capita advertising expenditures.
X5 = Factor score on economic development per capita.
X6 = Factor score on production per capita.
X7 = Level of industrialization dummy variable.
X8 = Nominal rate of interest.
X9 = Real rate of interest.
Y1 = Savings rate.
ξ_1 = Long term exposure to advertising.
ξ_2 = Per capita wealth.
ξ_3 = Perceived economic payoff to saving.
η_1 = Savings rate.

factor score for each nation from 66 variables relating to economic development per capita. The second measure is a factor score for each nation from 33 variables relating to per capita production, with added indicators of economic and population structure. A second data source, Gastil (1978) provided the third measure used to operationalize per capita wealth which consisted of a dummy variable for the level of industrialization.

Long term exposure to advertising was operationalized using four years of per capita advertising expenditures (1979, 1980, 1981, and 1982). Models using up to 10 years of per capita advertising expenditure (1973 through 1982) were also estimated to insure that the results were not spurious due to the four year lag structure. No meaningful differences were observed in any of these models, so the four year operationalization will be presented here for reasons of parsimony.

Data on all measured media expenditures, including print, television, radio, cinema, and outdoor, for each nation were taken from the Eighteenth Survey of World Advertising Expenditures (Starch-INRA-Hooper 1984). These values were then adjusted by the population for each nation obtained from the United States Yearbook.

A complete set of dat used to operationalize the conceptual model was obtained for a total of 30 nations. The nations included in the study are presented in Table 1.

TABLE 1
NATIONS IN THE STUDY

Australia	Austria	Belgium
Canada	Colombia	Denmark
Dominican Republic	Finland	France
Greece	India	Ireland
Italy	Japan	Netherlands
New Zealand	Norway	Pakistan
Philippines	Portugal	South Africa
Spain	Sweden	Switzerland
Thailand	Turkey	United Kingdom
United States	Venezuela	West Germany

MODEL ESTIMATION AND RESULTS

In order to estimate the structural model presented in Figure 2, we used the partial least squares statistical technique. Originally developed by Herman Wold (Wold 1965, 1974), PLS has been applied in a wide variety of disciplines including marketing (c.f., Jagpal 1981, Fornell and Bookstein 1982). In partial least squares, the set of model parameters is divided into subsets. Within each subset, estimates of parameter values are obtained by multiple regressions that include previous estimates of parameters in other subsets. By iterating across subsets, successive approximations for the parameters are obtained. PLS makes minimal demands regarding random sampling, the sample size, and the distribution of residuals (See Fornell and Bookstein 1982, for a comprehensive description of PLS).

The PLS estimates, critical ratios (the Jack-Knife estimate divided by the Jack-Knife standard error), covariance of residuals, and the mean R^2 of the structural model are presented in Table 2.

TABLE 2
PARTIAL LEAST SQUARES RESULTS

	Estimate	Critical Ratio[a]
λ_1	.988	85.88
λ_2	.979	64.72
λ_3	.979	69.34
λ_4	.986	72.38
λ_5	.970	45.40
λ_6	.988	76.93
λ_7	.938	50.50
λ_8	.889	4.29
λ_9	.970	9.16
λ_{y1}	1.000	—[b]
γ_1	.059	1.21
γ_2	-.193	-4.32
γ_3	.234	9.92

R^2 = .11

$$\theta_\delta = \begin{bmatrix} .022 & & & & & & & & \\ .099 & .021 & & & & & & & \\ -.024 & -.019 & .042 & & & & & & \\ -.018 & -.017 & .014 & .027 & & & & & \\ -.001 & -.003 & .002 & .003 & .041 & & & & \\ .005 & .004 & -.005 & -.005 & -.006 & .023 & & & \\ -.004 & .000 & .002 & .002 & -.057 & -.021 & .119 & & \\ -.006 & .010 & .000 & -.002 & .009 & -.003 & -.010 & .209 & \\ -.003 & .005 & .000 & -.001 & .005 & -.002 & -.005 & .111 & .059 \end{bmatrix}$$

[a] Jack-Knife estimate divided by Jack-Knife standard error (t-statistic).
[b] Fixed Parameter.

As can be seen in Table 2, the measurement linkages in the model are all highly significant, suggesting that the measurement portions of the model satisfactorily capture their respective constructs. Additionally, an examination of the covariance of residuals matrix (θ_δ in Table 2) indicates that the vast majority of the covariance in the observed variables has been incorporated in the model.

The mean R^2 of the structural model is low, suggesting that the constructs included in the model do not have a high level of predictive power for the savings rate. This is not unexpected considering the multitude of factors that influence personal savings across nations (c.f., King and Fullerton 1984).

The link between perceived economic incentive and the savings rate (γ_3) is positive and significant, and the link between per capita wealth and the savings rate (γ_2) is negative and significant. Therefore, we accept hypotheses H1 and H2. Accepting these two hypotheses adds face validity to the model's results.

The link between long term exposure to advertising and the savings rate (γ_1) is insignificant at the .10 level, but it is in the opposite direction hypothesized by the Galbraithian argument. Therefore, the hypothesis that advertising has the unintentional effect of reducing the savings rate is rejected.

SUMMARY AND CONCLUSIONS

This study presented an empirical examination of the unintentional economic effect of advertising on the savings rate. By examining long term exposure to advertising's relationship with the personal savings rate, we are able to directly examine the potential welfare losses to society. In order to overcome concerns in previous studies, this study includes wealth effects in the model specification, utilized data from multiple nations, and estimated the model using Partial Least Squares in order to simultaneously consider measurement issues within a structural approach.

Bearing in mind the limitations of the secondary data used to estimate the model, the results of this study suggest that long term exposure to advertising does not reduce the personal savings rate. The model's highly significant measurement linkages, low residual covariances, and support for the hypothesized effects on personal savings from perceived economic incentives and per capita wealth, all add validity to these results.

As such, this study adds further support to the notion that advertising does not encourage current consumption at the expense of personal saving. The results of this study suggest that criticisms of advertising based on the argument that advertising has the unintentional side effect of reducing personal savings, and thereby reducing the level of economic growth, are unwarranted and not substantiated by empirical validation.

References available from author

INTERNATIONAL PRODUCT LIFE CYCLE: INTRODUCTION TO RAPID SUCCESSION THEORY

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Abstract

This paper introduces a new version of international product life cycle. It identifies six critical factors in international industrial development area which necessitate the articulation of a new theory of international product life cycle. The rapid succession theory is emerged from this need. It has four components: successive cycles, accelerating cycle speed, self feeding, and the ladder. Further development of this theory will make a major contribution to international marketing theory and practice.

Introduction

Although domestic marketing literature is very rich in product life cycle concepts and research (Lambkin and Day 1989), somehow this topic has not been quite as popular in international literature. A few major attempts (Leroy 1976; Vernon 1979; Ghadar and Adler 1989; Grunwald and Flamm 1985) have taken international product life cycle concept into a different dimension. All of these studies have indicated that there are about three key phases to international product life cycle. As Ghadar and Adler articulated (1989):

Phase 1 - New product based on extensive research and development usually high tech, and developed in industrialized advanced home country.

Phase 2 - This phase is marked by the entrance of competition with growth and internationalization of the product. Production shifts to those countries with largest domestic market.

Phase 3 - The final phase encompasses the mature product. The market is now saturated and further reductions in production costs are impossible. R&D drops off completely and production shifts to LDC's who import to the original home country.

A supplementary theory to these efforts was developed by Drucker (1979). He maintained that because the pool of unskilled labor which is necessary for labor intensive manufacturing is declining, the developed countries are turning to less developed countries where there still is a substantial pool of cheap labor. This has led to the growth of many assembly plants that make partially assembled products with the final stages performed in the home developed country. An example is men's shoes. The key component of cow hide originates in the U.S., is tanned in Brazil, then goes to the Caribbean where soles are put on in Haiti, and then on to Jamaica or Barbados for the final stage of attaching the uppers (Drucker 1979).

Thus, from the existing literature one point is clear: international product life cycle attempts to explain how and why products are produced in different countries as they become more globally accepted.

This paper has two objectives: First, it explore the factors which necessitate a revised international product life cycle model; and second, it presents the rapid succession theory as a response to the need for a new model.

Critical Factors Which Necessitate a New Model

There are at least six key factors which create deficiency in the existing international product life cycle and make a case for its modification. These factors are: (1) shorter product life cycles, (2) closer relationship between R&D and manufacturing groups, (3) rise in fixed cost investment, (3) modular production facilities, (4) leadership in technology for success, (5) large overseas investments by U.S. companies, (6) computer engineering and simulation.

Shorter product life cycles. In the 40s and 50s product life cycles were considered to be anywhere between fifteen to twenty years. During the 60s and 70s this life span got shorter. By the 1980s the duration of product life cycles has been reduced to three to five years. For a growing number of products such as stereos and medicines, the life span came down to six months or less. This reduction in the product life span can be primarily attributed to the world wide dissemination of technical information and the growth of research and development in Japan and Europe (Ghadar 1989).

Closer relationship between R&D and manufacturing groups. Traditionally, originator economies have faced problems related to the lack of communication and coordination between production groups and design groups. Without manufacturing's early participation in design, latent production problems will crop up. Because of the lack of interaction and lack of interest of the counterparts in the production goals, design engineers will ignore opportunities to design products with production efficiency in mind. Thus, product and production improvements are likely to be very difficult (Gomory 1989).

Countries such as Japan have made efforts to address these problems. For example, designers and engineers in Japanese companies are often required to serve time in production oriented positions. Engineers are much more likely to take ease of production and cost to product into consideration at the design phase. Also, the Japanese have formed relationships where design specialists work side by side, often in product teams, so designers will be more cost conscious

and oriented towards manufacturing simplicity (Gomory 1989).

Rise in fixed cost investment. Manufacturing in the 80s has seen significant changes in technology and competition which also changed the nature of international marketing. One of the major changes is in the shift from labor intensive manufacturing to capital intensive. Firms must make significant investments in research and development in order to develop new products to keep ahead of competition. Technology breakthroughs in computer equipment have reduced the price of robotic equipment as well as personal computers. This automation has reduced labor needs by eliminating the need for large unskilled labor both on the production lines and in offices making labor a minor proportion of cost (Porter 1986; Ohmae 1983). These changes have dropped the labor content of products from 25 percent to less than 10 percent. These changes have also shattered the low cost labor in developing countries as used in Drucker's product sharing model (1979).

The product life cycle theories which allowed innovators to develop in their own country will also be affected by this change. In order to recover the high initial fixed investment of R&D, companies must now achieve immediate world wide penetration of their product. Ohmae (1985) maintains that the best game plan is to market simultaneously in the Triad markets of Japan, Europe and U.S. which account for 80 percent of the total world potential. Companies that try to develop only their domestic markets will not be able to compete with the advanced companies that market the large Triad all at once and quickly recover their fixed costs of R&D. A company's ability to sell large volumes of global products at the lowest cost to the end user has become the key factor for survival.

Modular production facilities. Products are being developed around standard modules so that new models can be developed and produced very quickly. Instead of hundreds of small parts assembled in one factory, the product is broken down into modular matching components produced at different sites. These modules can then be put together anywhere in the world. The advantage is a more reliable product with less human error factor, fewer spare parts, fewer maintenance problems, and quicker response to individual customer needs (Gomory 1989).

Leadership in technology is not necessary for success. Another change in the modern environment involves a growing motion, especially on the part of lesser developed countries, to move resources away from basic technology research and focus more on production technology research. Many lesser developed countries have little interest in developing new products. Instead, they view the correct strategy as determining what technologies are solid and will sell, and then devoting all resources to copying and producing those technologies and bringing them to market rapidly.

Traditional strategy of focusing on technological leadership is no longer valid, and countries who adhere to this strategy are placing themselves at a disadvantage. U.S. and other DCs lose technology and management skills for several reasons. First, in mature economies, creation of infrastructures for new technology is beyond financial reach of even large firms. Secondly, firms are engaged in rear guard defense of older technology and create barriers to progress which allow others to assume leadership. Third, in many industries, aggressive outsiders and new entrants are prevented from entering. Fourth, stabilizing motives squash innovation. Companies are looking for consistency in changing conditions (Jain 1989).

To cope with this change, companies have countered with more international alliances, mergers, consortia, and joint ventures as they are forced to concentrate on fewer critical R&D projects. Businesses are forced to scan and monitor already developed technologies and apply them quickly to their industry before their competition does. Today consortia are formed in nearly every area of leading edge industries like biotechnology, robotics, semi-conductors, jet engines and nuclear power (Ohmae 1987).

Large overseas investments by U.S. corporations. U.S. multi-nationals are well entrenched in many countries and cannot easily shift production back to U.S. as it becomes more cost effective. This counteracts the comparative advantage theory because there is hardly any free movement of resources to the country of lowest cost and best efficiency due to large immobile investments and plants (Jain 1989).

Computer engineering and simulation. A rapid technological change and product duplication occurred in the 80s. New computer breakthroughs have helped develop countless new products and made it easier for competing companies to duplicate technologies in months instead of years. No company can assume a position of technological monopoly for long (Ohmae 1985).

During the same period, use of simulation models has allowed manufacturers to avoid much of the time and cost to build actual hardware models, thereby speeding up the development process and product life cycle (Gomory 1989). It is now possible for small firms to make specialized products in short manufacturing runs using computer aided design and computer aided tools (Byrd 1986).

The microchip industry illustrates a good example of the technological revolution. Bell Labs took ten years to develop the first transistor in 1947. It took them four years to utilize the transistor in telephones and another six years before they were first used in computers and no one else challenged them. But in the 80s Japan started duplicating the Bell technology and then surpassed it with rapid speed. U.S. companies upgraded computers from 4K to 16K in a two year period, and the Japanese duplicated it in eight months. Then the U.S. went from 16K to 32K in another two year period and the Japanese

duplicated it in three months. One year later the Japanese introduced the 64K and the U.S. found themselves about one year behind. The Japanese quickly followed with the 256K and now the 386K quickly surpassing a 40 year old industry (Ohmae 1985). These seven factors individually as well as a group necessitate a major revision in international product life cycle theory. The new theory is presented below.

Rapid Succession Model

In order to cope with the seven key technological factors, the new international product life cycle theory must have four major components: (1) successive cycles, (2) accelerating cycle speed, (3) self feeding, and (4) the ladder.

Successive cycles. As new products are initially designed, created and produced in more developed countries, the initial cycle begins. As the product advances into growth and maturity stages, demand in the home country escalates. At this stage competition also escalates. There is pressure to reduce prices. The initial producers attempt to reduce prices by lowering costs. This is accomplished by sourcing components or even complete goods from lesser developed countries to take advantage of reduced labor and raw material costs. These are competent provider countries. As the product matures further, demand increases in the competent provider countries and the product life cycle begins anew there. Component provider countries begin to develop and produce new versions of the product independently. At this stage, global demand is increasing and LDC's also begin to consume the products. Furthermore eventually they also enter the production of the product in part or totally, thus, starting their own product life cycle. Thus there is a succession of cycles moving from developed to less developed countries.

Increasing cycle speed. The length of international product life cycles in general has become shorter. Thus the duration of successive cycles is decreasing dramatically. The time lag between the end of the cycle in the originating country and the beginning cycle in competent provider country has diminished. As a result, successive cycles throughout the marketplace begin to overlap.

Self feeding. Because of the major international industrial developments, product life cycles are experiencing a self perpetuating growth activity. As production begins to move away from originating countries to competent providers, the originating country is benefitting from reduced production costs. Lessening pressures on total production costs positively impacts margins and helps the country as a whole to retain competitive advantage. The component provider country benefits as both capital and technology is infused into the developing country. This influx of resources, currency, technological knowledge and managerial skill helps the competent provider to begin to acquire characteristics of a more advanced originating country. The technology transfer that occurs indirectly as the originator country starts sourcing from competent provider country and as the latter starts sourcing from less developed countries is likely to benefit all parties. Competent providers and later LDCs move beyond the production of simple primary products and commodities to the production of parts and finished products of manufactured goods. Thus their economies grow (Kaynak and Gural 1987).

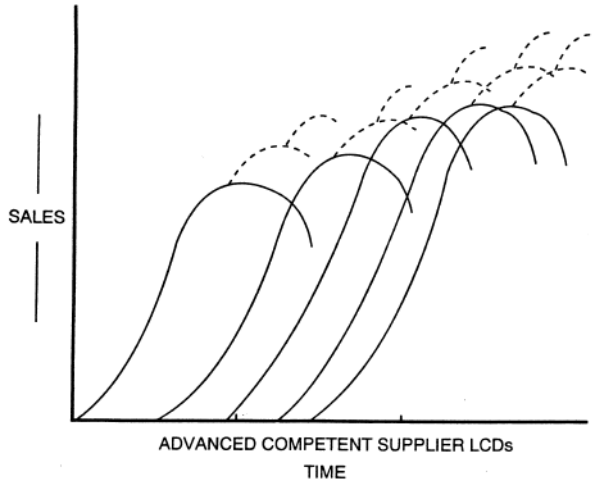
Transformation of component producing LDCs into competent provider status, promotes further acceleration of the cyclical process. They start sourcing in LDC's. As production begins in the LDC's, capital knowledge, technology and skills are inherited there in the same manner as before. Eventually, LDC's gain the ability to produce the end user product on their own and begin to market new versions of this product.

The ladder. As a product moves through consecutive and overlapping cycles, incremental improvements in the products and their production methods begin to occur (Gomory 1988). This concept particularly related to high tech products. New methodological advances rapidly replace existing products in an incremental fashion (MacInnis 1990). Other variations on the ladder concept also exist. Levitt (1974) suggested that individual firms plan in advance a stair-stepped sales motion. By intentionally introducing new variations of their product, or creating a market for new uses for the product, firms are able to extend the life of their goods.

In the Rapid Succession Model, incremental improvements to the product in question occur as production moves from the originator countries to the less developed countries over time. The net effect is that the lesser developed countries eventually end up in a highly competitive position. By focusing primarily on incremental improvement, the lesser developed countries end up producing significant quantities of the product at the lowest per unit costs with the most efficiency. As a result of this incremental improvement in production, the final products produced by the lesser developed countries are improved variations of the original product.

Figure 1 illustrates the rapid succession theory of international product life cycle. As can be seen it is composed of all of the four components of the theory. It is composed of successive cycles. Acceleration can be seen from the fact that the second cycle starts soon and the third cycle sooner, etc. Self feeding concept indicates that each cycle is taller than the previous one. Finally the ladder is seen by additional layers added onto the cycles. For simplicity sake only four successive product life cycles are used. These were associated with the advanced country and competent supplier country. It is quite conceivable that there would be multiple successive cycles in each country group. Similarly, there is no reason to assume that there will be one layer on the ladder. There could be multiple layers indicating improvement and revitalization of the product.

FIGURE 1
THE RAPID SUCCESSION MODEL



Conclusions

Rapid Succession Theory is an outcome of some six key international industrial developments. Their presence, almost by definition, necessitates a new outlook regarding international product life cycle.

The theory that is presented in this paper has four components: successive cycles, accelerating cycle speed, self feeding, and the ladder. It indicates that the product life cycle is likely to go beyond a country's boundaries, it may be shorter but more steep and may have some special extensions.

It is extremely important that future research will explore these features of international product life cycle carefully. Understanding the rapid succession theory may help international firms when to stay at the home country, when to move to competent supplier country and when to expand into LDC's. It also will provide new insights as to if the company should try to expand the life cycle or accelerate the succession process and where each activity should take place.

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INTERNATIONAL SEGMENTATION OPTIONS: GETTING AWAY FROM CONVENTIONAL WISDOM

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Abstract

International market segmentation is a rather neglected research area. Conventional wisdom has led to segmentation of world markets based on traditional criteria such as economic development or degree of industrialization. The authors maintain that more non-traditional and intra-national market segmentation is necessary in order to facilitate polycentric marketing orientation and to be successful in the international arena.

Introduction

Both in economics and in international marketing there always has been an intellectual curiosity regarding world markets. Economists and marketing scholars explored international markets on the basis of their economic develop-ment level and made attempts to group them accordingly. This approach stemmed from conven-tional wisdom of political economics. Early economists and marketing scholars up until the mid sixties used only economic variables as the basis of their analyses. Until very recently much of the efforts to determine the nature of international markets were related to economic analyses. Therefore, they suffered from conven-tional wisdom.

Domestic markets of foreign nations are not homogeneous. Understanding their heterogeneity is critical to successful international marketing. Thus, global competitiveness, to a significant extent, is related to being able to segment international markets successfully both at inter- and intra-national levels.

In this paper we attempt to get away from conventional wisdom in segmenting international markets and explore important non-conventional ways of segmenting these markets. In our analyses special emphasis is put on inter- versus intra-country segmentation approaches.

Conventional Wisdom in International Segmentation

Early attempts of segmentation revolve around two key authors: Rostow (1960) and Dichter (1962). Rostow grouped countries on the basis of their economic growth and their potential to grow economically. He classified countries as: traditional society, development as precondition for take off, take off, drive to maturity, and the age of high mass consumption. This approach enhanced the degree of awareness about economic growth and groups of countries which have some key similarities in their economic profiles.

Dichter (1962), on the other hand, based his groupings on the size and development of certain socio-economic classes in various countries. He grouped societies as: almost classless society, affluent countries, countries in transition, revolutionary countries, primitive countries, and new class societies. Dichter was rather simplistic and arbitrary in his analysis, however, he considered consumption patterns more than Rostow. Exhibit 1 summarizes the work of five other authors in their attempts to develop methods and models of international segmenta-tion. The following section draws from Samli (1991).

EXHIBIT 1
EARLY DEVELOPMENTS IN INTERNATIONAL MARKET SEGMENTATION

Name of Segments	Criteria	Authors
Traditional society Pre-take off Take off Drive to maturity Mass consumption society	Economic	Rostow, 1962
Classless society Affluent countries Countries in transition Revolutionary countries Primitive countries New class societies	Size and development of middle class in a country	Dichter, 1962
Most highly developed Developed Semi-developed Underdeveloped Very underdeveloped	Degree of economic and demographic mobilization	Liander, et al., 1967
Complex clusters of countries	56 micro and macro variables	Sethi and Holton, 1969
Complex hierarchy of country segments	National market characteristics	Frank, Massy and Wind, 1972
Country cluster classification of "hot," "moderate," and "cold	59 variables	Goodnow and Hansz, 1972
Subsistence economies Raw material exporting Industrializing economies Industrial economies	Type of industrial structure/ national income	Kotler, 1987

One of the most significant of these methods and models of segmentation is based on two criteria: (1) degree of economic and demographic activity, and (2) domestic stability and cohesiveness (Liander, et al., 1967). On the basis of these two criteria different countries were given certain scores and their relative position was determined on a two-dimensional graph. This is a relatively more complex technique than the two previous analyses. It provided an opportunity to examine international market opportunities. In their analyses, Liander et al. clustered 88 countries based on approximate degrees of similarity among them. Through this procedure they established five groups: (1) most highly developed, (2) developed, (3) semi-developed, (4) underdeveloped, and (5) very underdeveloped. These groups appear to be rather predetermined. There have been no attempts to examine the usefulness of this classification.

Another approach used 56 micro and macro variables dealing with a number of different socio-economic and political indicators (Sethi and Holton, 1969). In this case a sophisticated cluster analysis was used to perform a two-step analysis procedure. First, a large number of variables will be transformed into smaller groups of clusters. These groups were coined variable clusters. These variable clusters were used to group countries. Four variable clusters were established: (1) Aggregate production and transportation, (2) Personal consumption, (3) Trade, (4) Health and education. Aggregate production and transportation variables are, among others, number of air passengers, air cargo, number of newspapers. Personal consump-tion variables are among others, per capita income, T.V. sets per capita, hospital beds. Trade variables are among others, imports as a percent of GNP and exports as a percent of GNP. Finally, health and education variables are, among others, illiteracy rates, life expectancy and political stability. These variables are used to further cluster the countries. Various clusters may be studied as to which would be more important to export for instance manual sewing machines versus personal computers.

Frank, Massy and Wind (1972), developed a hierarchy of segments based on national market characteristics and consumer characteristics. These are country markets. The particular hierarchy analysis used by these is somewhat complex. However, their effort facilitated better understanding of international market segments in terms of groups of countries.

Hansz and Goodnow (1972) used 59 variables and developed a hierarchical grouping of world countries. Their sophisticated and complex cluster analysis has led to the development of a cluster classification of "hot," "moderate," and "cold." Hot countries are the ones which display the best potential for international marketing. By the same token the cold countries are the least desirable for investment or exporting. The technique facilitated a better understanding of the world markets.

More recently, Kotler (1987), presented a new classification of world markets. His classification is based on industrial structure and national income. On the basis of industrial structure Kotler classified countries as: (1) subsistence economies, (2) raw material exporting economies, (3) industrializing economies, and (4) industrial economies. On the basis of national income, Kotler classified countries further into five categories: (1) very low family income economies, (2) mostly low family income economies, (3) very low very high family income economies, (4) low medium high family income economies, (5) mostly medium family income countries.

As can be seen these and other attempts have been important in identifying and grouping nation markets. Although they have been instru-mental in paving the way for international market segmentation activity, they have not been quite adequate for two reasons. First, they have relied very heavily on economic or other objective criteria, ignoring completely subjective variables. Second, they dealt only with international market segments which ignored completely intra-national (within country) segments of the world (Hassan, 1991).

Since behavioral sciences have become more important in business curricula, consumer behavior has become an important area of inquiry. However, not enough has been done to use the consumer behavior knowledge in international market segmentation (Hassan and Katsanis, 1991). Even if the conventional wisdom of using economic criteria for interna-tional segmentation were to be appropriate, it would be necessary to supplement such efforts with further attempts to segment by using consumer behavior patterns. Thus, more specific, accurate and sensitive segmentation can be achieved by combining the two approaches and non-conventionalizing the conventional wisdom.

As we learned more about different world markets the more we have become cognizant of the diversified nature of these markets. National markets are not homogeneous with the exception of perhaps Scandinavian countries. Thus, it is necessary to understand the intra-national within-market segments well.

International Segmentation Options

It is obvious that international market segmentation process must opt on two key dimensions: (1) micro-macro; (2) stereotypic-creative. A combination of these two dimensions provide a 2x2 matrix presented in Exhibit 2. There are four key segmentation options as illustrated in Exhibit 2.

(1) Stereotypic-Macro: This is the traditional economic segmentation. By grouping countries into economic clusters the world market is divided into its simplest and crude common denominator.

(2) Macro-Creative: This option proposes that there are other than economic criteria for segmenting the world markets. Some unusual

criteria may be more suitable than the traditional economic criteria.

(3) Micro-Stereotypic: Still by using economic or industrial development criteria some attempts have been made to explore smaller units than cluster of nations. Although these attempts may have reached intra-national levels, they still used the traditional economic criteria.

(4) Micro-Creative: This approach reflects micro segmentation that is appropriate for polycentric global orientation. Not only international but also intra-national segmen-tation is performed by using creative and unusual criteria. Pockets of markets in different countries may be linked by performing such a segmentation task.

EXHIBIT 2
INTERNATIONAL SEGMENTATION OPTION MATRIX

	Stereotypic	Creative
Macro	Traditional Ethnocentric Orientation	Global macro segmentation by using Unusual criteria
Micro	Traditional small market segmentation by using micro segmentation criteria	Modern polycentric segmentation by connecting small pockets of different markets through special criteria

Illustrations

Exhibit 3 presents some illustrations of each of the four groups of segmentation. The standard classification of countries as developed, developing, less developed and undeveloped is the typical stereotypic macro segmentation. Creative macro segmentation, on the other hand, could be based on various factors. In this illustration Maslow's hierarchy was used as the base. Although such segmentation is not quite known, there is no reason why it can not be integrated in the international marketing program. Furthermore, such a classification may be very useful to determine product and service needs of certain groups of countries.

EXHIBIT 3
SAMPLES OF SEGMENTATION FOR EACH GROUP

	Stereotypic	Creative
Macro	Developed Developing Less Developed Undeveloped	Countries at: physiological needs stage safety needs stage belongingness needs stage self-esteem needs stage self-actualization needs stage
Micro	Upper income groups Middle income groups Lower income groups	International YUPPIES Intern. Yogurt Eaters Professional Athletes

Stereotypic micro segmentation may deal with upper, middle or lower income in a country. Again, there are other traditional criteria such as age, literacy, degree of industrialization, etc., however most attempts in this area would not provide the most workable segmentation option because they ignore some of the psychological and behavioral criteria.

Finally examples of creative micro segmentation is illustrated in the lower left quadrant of Exhibit 3. Several examples are given here. First, again although there is almost no research, it is quite known that every country has a group of people who are YUPPIES and as such they have more common values and behaviors among them than other groups within their country. Thus, it may be quite necessary to develop a global YUPPIE market by combining different groups together.

Similarly, if a frozen yogurt company were to consider its international market potentials, it may first look at parts of the world where yogurt is a traditional food and is well liked. This, again, may necessitate bringing pockets of consumers from different countries and therefore accomplishing an inter- and intra-national segmentation (Samli 1991).

It is also quite conceivable, for instance, to pinpoint only certain groups with clearly identifiable activities, e.g., professional athletes. Again, targeting this group specifically would enable the marketer to achieve inter- and intra-national segmentation.

Conclusion

International segmentation is still a neglected area which requires some serious research effort. In this paper some non-conventional approaches to international market segmentation is considered. The traditional approach has been primarily economic based macro type of segmentation. However macro segmentation on a non-traditional basis could be developed by using Maslow's hierarchy.

The most important segmentation activity is related to polycentric international orientation. An approach that utilized inter- and intra-national segmentation simultaneously based on unique criteria should be related to the overall competitive strategy of the firm. Segmenting world markets on the basis of consumption patterns and trends may present marketers with the challenge of competing in order to satisfy rather than to conquer.

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CONSUMER PREFERENCES AS BARRIERS TO STANDARDISING MARKETING PROGRAMMES IN THE SINGLE EUROPEAN MARKET: THE ROLE OF COUNTRY-OF-ORIGIN AND ECOLOGICAL PRODUCT ATTRIBUTES

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Abstract

This study forms part of a larger project on differences in consumer preferences across various countries. It presents an initial investigation of the scope for marketing standardisation in EC markets through a comparison of product attribute preferences for cars of consumers in Britain and Germany. In a multi-cue context, emphasis is placed on the relative importance attached to ecological and country-of-origin attributes. While the relative *ranking* of product attributes shows a large degree of congruence between the two countries, there is a large number of significant differences in the *proportion* of respondents in each country that prefer particular product attributes. Overall, the results indicate that differences in consumer preferences still form barriers to approaching the Single European Market with a standardised marketing programme.

The Single European Market and the Standardisation Debate

Standardisation of marketing programmes has been extensively debated in the international marketing literature (e.g. Elinder, 1961; Sorenson and Wiechmann, 1975; Killough, 1978; Peebles et al., 1978; Quelch and Hoff, 1986; Wind and Douglas, 1986; Jain, 1989). The concept of a truly harmonised Single European Market (Cecchini et al., 1988) has fuelled this debate, questioning the extent to which it is possible to standardise the marketing programme across different EC-member countries. While it has been proposed that the scope for using a standardised marketing programme depends on a number of factors, including the target market, market position, nature of the product, environment and organisation factors (Jain, 1989), the focus of this work lies exclusively on the consumer preferences in different markets. Specifically, the paper aims to shed some light on the standardisation issue through a comparison of product attribute preferences for cars of consumers in two European countries, namely Britain and Germany. Specific emphasis is placed on identifying the role of country-of-origin cues and ecological product characteristics relative to other product attributes. Attitudes towards these two issues appear to be of particular interest, given the internationally organised manufacturing processes of car companies, the additional emphasis placed on "made-in" information by some car manufacturers (e.g. AUDI), and the critique levelled against the ecological impact of car transport. While a comprehensive review of the literature on country-of-origin and ecological product attribute research is not possible due to space restrictions, a brief summary of the key findings is given below.

Empirical Research on Country-of-Origin and Green Consumerism

The Value of "Made-In"

The extensive literature on the value of "made-in" information has been reviewed, among others, by Bilkey and Nes (1982), Kaynak and Cavusgil (1983), Papadopoulos et al. (1986, 1988), Wall and Heslop (1986), Johanson and Nebenzahl (1987), Han and Terpstra (1988), Wall et al. (1988) Hong and Wyer (1989) and Hung (1989). While it is accepted that country-of-origin information influences product evaluation and selection, the exact nature of this influence is still unclear. For example, Schooler (1971), Bannister and Saunders (1978) and Bilkey and Nes (1982) found quality perception of older and male consumers to be higher for domestic products than for imported ones. In contrast, Barker (1987) found no significant relationship, while Wall and Heslop (1986, 1988) found women more positively inclined towards domestic products. Country-of-origin research has also been criticised for the prevalence of single-cue studies, describing product alternatives in terms of their origin only, to the exclusion of other potentially relevant attributes (Wall et al.,1991).

The Greening of Consumers

In the UK, about 42% of consumers claim to choose products on the basis of "environmental performance" and 27% state that they are prepared to pay up to 25% more for "environmentally friendly" products (Prothero, 1990). And there are no signs that the high level of ecological concern is beginning to diminish. In July 1990, a *Gallup* poll of British adults concluded that the "environment has increased in importance to most people over the past year" (Bidlake, 1990, p.24). In Germany, Raffée and Wiedmann (1986) report on a survey conducted by *INFRATEST*, where 60% of the sample claims to

be "environmentally conscientious" and to buy "environmentally-friendly" products even if they are more expensive. At the same time, consumers are also becoming more skeptical about "environmentally-friendly" claims made by companies (Management Consultancy, 1989). For example, based on 1200 personal interviews conducted throughout the UK, *Green Monitor* concluded that 56% of all consumers are suspicious about such claims (Burnside, 1990).

The car industry is very much at the centre of environmental criticism, being a major producer of carbon monoxide, hydrocarbons, nitrogen oxides and carbon dioxide (Smith and Sambrook, 1990; Dearden, 1990, Askwith, 1990). Consequently, "every new model must be seen to make as little impact as possible on the world in which it operates. And...must lend itself to being recycled into new raw material" (Marshall, 1991, p.9). Research on alternative fuels, electric cars and car recycling is therefore conducted with great intensity (Seymour and Giardet, 1988; The Economist, 13.10.1990; The Financial Times, 27.9.1990; The Times, 4.6.1990).

Research on ecologically-motivated purchase behaviour has concentrated on such ecologically-sensitive products as petrol, washing powder, paper, and CFC cans. Examples are Kassarjian (1971), who looked at consumer attitudes towards unleaded petrol; Henion (1972), Kinnear and Taylor (1973), Mazis, et al. (1973), Henion et al. (1980), who focused on washing powder; and Fritzsche (1974), Brooker, 1976, Murphy, et al. (1978), Fritzsche and Duehr (1982), Herberger and Buchanan (1971), who researched consumer attitudes towards soft-drink cans, paper towels, deodorant sprays and, again, washing powder and petrol. With the exception of very few studies, such as Buchtele and Holzmüller (1990) in Austria and Schlegelmilch and Diamantopoulos (1990) in the UK, most relevant research has been conducted in the USA and Canada. This also holds for empirical studies focusing on the sources used by consumers to obtain information about ecological problems (e.g. Kinnear and Taylor, 1973) or exploring links between socio-demographic variables and attitudes towards ecological issues (e.g. Anderson et al.,1974). Lastly, there appears to be not only a lack of European-based research but, with few notable exceptions (e.g. Arbuthnot, 1975; Kessel and Tischler, 1986) generally an absence of research comparing consumers from different countries on ecological issues.

Methodological Background

The present study is part of a wider research programme conducted in cooperation with a German University and reports some initial findings on the role of country-of-origin and ecological product characteristics among consumers in the UK and Germany. In both countries, consumers were invited to participate in a computer-aided questionnaire survey at a number of different shopping centres as well as central locations of the two University campi.

This resulted in a total of 410 respondents, 36% of which were students and 64% were "ordinary" consumer with a purchase intent. In this context, purchase intent was assumed for consumers who had bought cars during the last two years or were planning to purchase within a year. Of the total sample, 48% of the respondents came from Germany and 52% from the UK.

The computer-aided questionnaire was based on the proprietary IDAS (Interactive Decision Analysis System) programme developed by the German partner University. Among the benefits of this programme are the ability to handle different languages, to permit an individualised selection of product attributes and to randomise subsequent comparisons of selected attributes. On agreeing to participate in the survey, each respondent was requested to classify each of eighteen product attributes as important or unimportant. Those attributes classified as important were subsequently ranked by the respondent according to their relative importance. Two further attributes, notably country-of-origin and 3-way catalytic converter (the fixed "green" feature), were finally added to the three most highly ranked attributes (excluding the two fixed attributes) to yield a partially-individualised attribute set of size five (with two fixed and common to all respondents). Survey participants were also requested to provide information on ten socio-demographic variables (sex, age, profession, income, educational background, marital status and questions pertaining to the children in the household).

Survey Results from Britain and Germany

Characteristics of the Samples

No significant differences ($p>0.10$) were detected in the distributions of the following variables between the British and German samples: age, marital status, educational level, monthly net household income, number of children in the household, age of the eldest child and age of youngest child; chi-square tests, Kolmogorov-Smirnov 2-sample tests and the Wald-Wolfowitz runs tests (where applicable) produced similar conclusions. However, significant differences ($p<0.005$) were established between the two

groups with respect to sex and profession. A sample breakdown of these two variables is given in **Table 1**.

TABLE 1
BRITISH AND GERMAN RESPONDENTS
BY SEX AND PROFESSION

	UK (%)	D (%)
Sex		
Male	78.7	88.7
Female	21.3	11.3
Profession		
Self Employed	8.6	8.0
Top Management	4.6	13.2
Middle Management	15.7	25.8
Housewife	0.5	0.9
Student	45.2	27.2
White Collar Employee	7.6	15.5
Skilled Worker	8.1	3.3
Unskilled Worker	1.0	0.9
Unemployed	5.1	3.8
No Comment	3.6	1.4

It can be seen that the majority of respondents were male. A possible explanation may be that males have a greater affinity to being interviewed through the use of a computer. As far as professions are concerned, the observed differences are mainly ascribable to a higher proportion of British students and a lower proportion of British managers.

Importance Attached to Different Product Attributes

Table 2 compares British and German consumers in terms of the attributes they considered important when purchasing a car. For each attribute two importance measures are given: firstly, the proportion of respondents in each country who consider the particular attribute to be important; secondly (below the first value), the proportion of respondents that included the attribute among their top five. Note that the first measure always yields higher values than the second. For both measures the respective rank of the attribute is given in parentheses. As the measures are expressed in proportions, Z-tests have been applied to check for differences between Britain and Germany.

It is particularly interesting that the "green" attributes are preferred by a significantly higher proportion of German respondents as are the "specification" attributes. In contrast, British respondents prefer the "engine" attributes involving performance and acceleration, a result which runs counter to a number of popular myths, for example that German motorists are "performance oriented."

To illustrate the overall high degree of correspondence in rankings, both between measures and between countries, **Table 3** contains the Spearman-rank correlation coefficients for the four rankings of the eighteen attributes. The results obtained by excluding those three attributes for which large differences between the two sub-samples were observed (namely acceleration, shape of chassis and reusable chassis) appear in parenthesis.

As a final point, it is worth noting that British respondents classified an average of 6.77 attributes as important compared to 8.13 for Germany. This is a significant ($p<0.001$) difference and may indicate a more complex decision process or higher "sophistication" of German consumers. It also explains the slightly greater change between the measures for German respondents, since a larger number of attributes were resticted to at most five (hence the somewhat lower correlation for German respondents in **Table 3**).

Conclusions and Suggestions for Future Research

The results present a mixed picture in terms of the scope for standardised marketing programmes in the two EC markets investigated. The similarities in the relative ranking of product attributes suggest that, on the whole, cars can be engineered and equipped similarly in Britain and Germany; one notable exception being the much higher preference ranking for acceleration by UK consumers. However, focusing not on ranking but on the percentage of respondents regarding an attribute as being important or as one of the top five attributes when purchasing a car gives a different picture. There is a large number of highly significant differences between the two countries, including differences between product attributes that enjoy a high ranking (e.g. motor performance and catalytic converter). This suggests that the scope for standardisation may not be as great as initially thought. From a practical perspective, the findings seem to point towards a "relatively" standardised product programme but a tailored communications mix, focusing advertising and promotion efforts in both countries to those issues which enjoy the larger support. This could result in campaigns emphasising green product attributes (e.g. catalytic converter, reusable chassis) in Germany and "engine" attributes (e.g. acceleration and motor performance) in the UK.

Taken collectively, the results illustrate the potential problems in approaching the Single European Market with a single marketing strategy. While the regulatory

TABLE 2
ATTRIBUTE PREFERENCES IN BRITAIN AND GERMANY

	Britain (N=197)		Germany (N=213)		Signif. (2-tailed)
Attribute	Percent	(Rank)	Percent	(Rank)	Z-Test
Fuel consumption	85.3	(1)	89.2	(1)	ns
	81.2	(1)	82.2	(1)	ns
Motor performance	68.5	(2)	58.2	(3)	0.05
	64.5	(2)	43.7	(3)	0.001
Anti-lock break system	57.4	(3)	52.1	(5)	ns
	47.2	(3)	40.8	(4)	ns
3-Way catalytic converter	51.3	(4)	85.0	(2)	0.001
	39.1	(4)	76.1	(2)	0.001
Acceleration	47.2	(5)	34.7	(14)	0.01
	36.0	(5)	13.6	(13)	0.001
Number of doors	44.7	(6)	54.9	(4)	0.05
	25.4	(7)	21.1	(10)	ns
Power-assisted steering	39.1	(7)	44.1	(9)	ns
	25.9	(6)	23.0	(9)	ns
Fully galvanised chassis	38.6	(8)	43.7	(10)	ns
	20.8	(10)	30.5	(5)	0.05
Gearbox (manual/automatic)	36.5	(9)	47.4	(6)	0.05
	21.3	(9)	17.4	(12)	ns
Central locking	35.0	(10)	41.8	(12)	ns
	9.6	(14)	11.7	(15)	ns
Country-of-origin	33.0	(11)	45.5	(8)	0.01
	24.4	(8)	27.7	(6)	ns
Luggage space	32.5	(12)	37.6	(13)	ns
	16.2	(11)	23.5	(8)	0.05
Air-conditioning	29.9	(13)	19.7	(17)	0.01
	12.2	(12)	7.5	(16)	ns
Sunroof	27.4	(14)	46.0	(7)	0.001
	9.1	(15)	13.1	(14)	ns
Height adjustable seats	19.3	(15)	27.2	(16)	0.05
	7.1	(16)	1.9	(18)	0.01
Shape of chassis	16.2	(16)	42.3	(11)	0.001
	11.2	(13)	24.9	(7)	0.001
Reusable chassis	8.1	(17)	30.0	(15)	0.001
	5.6	(17)	19.7	(11)	0.001
Sport seats	6.6	(18)	12.7	(18)	0.05
	2.0	(18)	3.8	(17)	ns

Among the notable conclusions to be reached from the table are:

1. There is little difference in the rankings produced by the two measures.

2. Rankings are similar for British and German respondents with respect to both measures. Notable exceptions include a much higher ranking of acceleration by British respondents and a somewhat higher ranking of sunroof, reusable chassis and shape of chassis by German respondents.

3. Only four attributes enjoy majority support of British respondents, as opposed to five for Germans.

4. 3-way catalytic converter is always included in the first five attributes according to both measures. Country-of-origin is always ranked lower than five, but never worse than eleven. This suggests that, on the whole, including these two attributes as fixed is not really restrictive.

5. The following significant differences in preferences are detected with respect to <u>both</u> measures. Greater German preferences for 3-way catalytic converter, shape of chassis and reusable chassis; greater British preferences for performance and acceleration.

6. A number of additional significant differences exist which are observed on the first measure, but not on the second. This implies that although a higher proportion of respondents of one of the two groups consider a particular attribute to be important, there seems to be correspondence in assessment by the two groups whether the attribute is one of the more important attributes or not. Any difference is then only of a lesser degree. Examples are greater German preferences for number of doors, gearbox, country-of-origin, sunroof, sport seats; greater British preferences for air-conditioning.

7. Attributes showing no significant differences on the first measure but significant differences on the second are of greater importance. The same holds for attributes in which significant differences in <u>opposite</u> directions are detected (in which case the second measure is perhaps the more important one). This applies to greater German preferences for fully galvanised chassis and luggage space, and greater British preferences for height-adjustable seats.

TABLE 3
CORRELATION BY MEASURE AND COUNTRY

	UK		Germany	
	Measure 1	Measure 2	Measure 1	Measure 2
UK Measure 1	1.00 (1.00)	0.95 (0.95)	0.77 (0.85)	0.68 (0.85)
UK Measure 2		1.00 (1.00)	0.77 (0.85)	0.76 (0.89)
D Measure 1			1.00 (1.00)	0.77 (0.79)
D Measure 2				1.00 (1.00)

[all coefficients significant at p<0.001]

environment in different EC countries may soon be sufficiently harmonised to permit a standardised marketing approach, the existing differences in consumer preferences may still obstruct the use of completely standardised marketing programmes. Given that the results of this paper demonstrate this with reference to two EC countries which are relatively similar in terms of their economic development and living standards, it is likely that differences in consumer preferences will be even more pronounced between EC countries at different ends of the development spectrum (e.g. Portugal and Germany).

As to future research, four promising avenues emerge. Firstly, it would be of interest to quantify the preferences of consumers with regards to different product attributes, placing particular emphasis on the "premium for greeness;" a conjoint analysis would appear to be the way forward here. Secondly, the possible impact of variables other than nationality on product attribute preferences need to be studied, such as the effect of socio-demographic and attitudinal characteristics. Thirdly, it would be desirable to determine whether similar differences in product attribute preferences exist between additional EC countries and/or different product groups. This would enhance the understanding of the standardisation issue by showing whether, and if so to what extent, the current findings can be generalised. Finally, from a methodological point of view, it may be worthwhile to investigate whether there are substantial differences between the preferences held by the student population and "ordinary" consumers. This will provide further evidence on the debate regarding the use of students samples in consumer research.

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SALES ADAPTATION IN JAPAN; AN EXPANSION OF THE CONTINGENCY MODEL

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Abstract

The purpose of this paper is to investigate how well our current theoretical constructs of adaptive behavior fit the context of international sales transaction. As a preliminary step, this research provides insight into issues that will need to be considered for future work concerning adaptive behavior in an international context.

Introduction

Over the last twenty-five years, theoretical development of personal selling has evolved from focusing on isolated characteristics of either the buyer or seller (Brock 1965, Woodside and Davenport 1970), to an interactive, processual perspective (Evans 1963; Spiro, Perreault, and Reynolds 1977; Weitz 1981; Weitz, Sujan, and Sujan 1986). The perceptions, attitudes, purposes, and communicative responses of both the buyer and seller influence and constrain the interaction (Capon 1975, Leigh and Rethans 1984, Schuster 1988, Schuster and Danes 1986, Willett and Pennington 1966). Research continues to identify variables that affect the interaction (e.g., knowledge, adaptability, motivation), variables that are modified during the interaction (e.g., influence strategies, benefits stressed, types of questions used), and variables that are related to either the situation or the relationship between the buyer and seller (e.g., power, buying center composition, location in the decision making process).

Progress is being made toward understanding the processual, interactive nature of the influence process that is personal selling through the whole distribution channel. Research indicates that unique situational or relational requirements necessitate the use of different influence strategies or skills (Spiro and Perreault 1979). From this research, training programs are developed enabling salespeople to more quickly learn the techniques and skills of adaptation. However, the research cited above focuses only on the sales process as used in the United States.

As more businesses become involved in exporting their products to other countries, or establishing channels of distribution, the occurrence of cross-cultural sales transactions increases. During 1989, 2,500 businesses from the United States exported products for the first time (McKinney, 1990). Therefore, more and more salespeople are facing the task of calling on a buyer from a different business culture. In addition, an increasing number of businesses in the United States are owned by companies from other countries. As a result, even those salespeople who stay in the United States and call on local or regional business customers, are calling on buyers from a different business culture.

Psychological distance is one of the variables that affects international business activities, and has a significant impact on the sales transaction (Cateora 1990). When the buyer and seller come from two very different business cultures, they face tremendous difficulties in understanding one another, much less in coming to an agreement about what products or services will meet specific needs or fulfill particular requirements or what channels of distribution will be most effective. Adaptation to different cultural imperatives is critical for success in this environment. The selling process will necessarily require more cultural backgrounds. A critical question that needs to be addressed is whether our current theories of personal selling adequately model the cross-cultural sales interaction.

Adaptive Behavior Model and Methodology

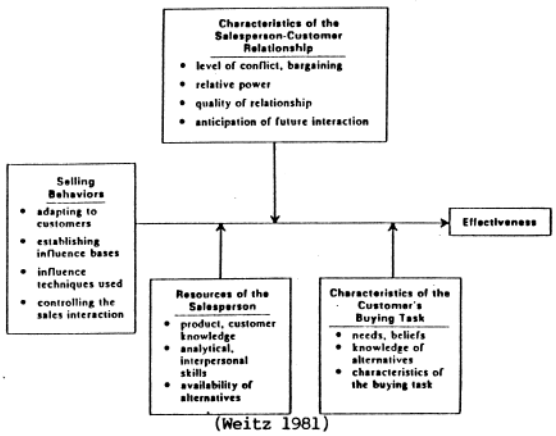
Adaptive Behavior Model

In 1963, Evans suggested that personal selling research focus on the interactive nature of the transaction, rather than on characteristics of the individuals or situation in isolation. In 1968, Robertson and Chase developed an Open Systems Approach to personal selling, which viewed customer interaction as a key event in the relationship between behavior and performance. The customer interaction provided input to the salesperson, resulting in a change in the salesperson's behavior. Building upon this approach Spiro, Perreault, and Reynolds (1977) found that salespeople can control their interpersonal strategies and adapt those strategies based upon feedback from unsuccessful negotiations. More specifically, Green and Tonning (1979) focus on a cognitive dimension to adaptation by documenting the change in the salesperson's thought process that occurred during the interaction. While this stream of research emphasized the role of the individual salesperson, other research focused on the sales situation.

In 1981, Weitz proposed the Contingency Model of Salesperson Effectiveness (see Figure 1), which focuses on the relationship between salesperson behaviors and effectiveness in a given environment. Effectiveness in sales interactions was defined as the degree to which the salesperson's "preferred solutions" are realized across his/her customer interactions. Salesperson behaviors include establishing a base of influence, and influence techniques used by a salesperson.

Weitz (1981) postulated that effectiveness of salesperson behavior, across customer interactions is contingent upon or moderated by the salesperson's resources, nature of the customer's buying task, the customer-salesperson relationship, and the interactions among these variables. Salesperson resources have been defined as a set of skills or abilities, a level or knowledge about the products and the customer, and a range of alternatives that can be offered to the customers (Weitz, 1981). The customer's buying task may be classified as a new buy, modified rebuy, or straight rebuy. The customer-salesperson relationship may be characterized by relative power and level of conflict. Weitz (1981) proposed that a contingency approach should be used in salesperson performance research, because salespeople match their behavior to specific customer interactions.

Figure 1
Contingency Model of Salesperson Effectiveness



(Weitz 1981)

Weitz, Sujan, and Sujan (1986) build upon the original model by identifying the practice of adaptive selling as the "altering of sales behaviors during a customer interaction or across customer interactions based on perceived information about the nature of the selling situation," and focused on the variables that are related to salesperson adaptability in this research. Since the original Weitz (1981) model focuses more on the situational factors that affect adaptability, and since those factors are more relevant for investigating the environmental constraints of cross-cultural sales transaction, the original Weitz (1981) Contingency Model was used as the organizing framework for this research.

To examine the fit of Weitz (1981) Contingency Model in cross-cultural sales situations, this research focused on the adaptive behavior of salespeople from the United States selling in Japan for three reasons: (1) Japan and the United States have a great degree of "psychological distance" necessitating the need for adaptation; (2) Discrepancies in the fit of the model are most likely to occur in transactions between buyers and sellers of very different cultures; (3) Creation of distribution channels and selling to Japan have been extremely difficult for many U.S. companies. Therefore, the authors, decided that examination of the fit of current theories of sales adaptation would provide useful information for U.S. salespeople attempting to sell into Japan and establish channels of distribution.

Methodology

Since few resources are available that document different requirements for selling in Japan (Graham and Sano 1989 are notable exceptions), and since none examine the transactions using current theories of adaptive sales behavior, this study is exploratory in nature. Since the application of the Contingency Model in a cross-cultural situation breaks new ground, the researchers did not know which factors of the model should be similar or different in this new situation. Therefore, a specific test of variables was inappropriate.

Previous research indicates that one effective methodology to employ in this situation is in-depth interviews with key informants (Dean, Eichorn, and Dean 1969; Schuster 1987; Wilson 1985). Because of travel and time constraints, the number of informants to be interviewed would be small, so the researchers decided to interview informants within the same industry to maintain some consistency and ensure a better understanding of the adoptive process. Since U.S. companies who are selling in Japan will have devised recruiting and training methods to assist their salespeople in the adaptation process, company representatives who have, or have had, responsibility for training U.S. salespeople in Japan were selected as key informants for this study. Five informants from senior management positions in the automobile industry in Japan agreed to be interviewed. The variables identified in the description of the Contingency Model by Weitz (1981) and Weitz, Sujan and Sujan (1986) were used to create an interview guide. The interview guide and probing questions encouraged informants to discuss topics from their perspective without imposing definitions and relationships identified in previous research. The same person conducted all interviews to increase consistency in the data collected. The length of the average interview was approximately one hour. The data collected from these interviews was analyzed by both authors to determine similarities to and differences from the Contingency Model.

Analysis of Interview Data

Based upon the Contingency Model it would be expected that salespeople should adapt to every situation and every customer, and that the variables and definitions previously described (Weitz, Sujan and Sujan 1986; Weitz 1981) would be appropriate for predicting and/or understanding salesperson effectiveness. The data generated in this study indicates that the previously identified variables only partially explain the adaptation required for selling in Japan. Those areas of adaptation that appear to be fairly similar to the factors identified in the model and may differ only in degree are discussed first. The second section will discuss those areas of adaptation that more significantly differ from the factors identified in the model.

Areas of Similarity

Resources of the Salesperson. Weitz (1981) proposed, and the research conducted by Weitz, Sujan and Sujan (1986) confirmed, that the knowledge base of the salesperson is a critical factor for success. Therefore, information gathered suggesting that the salespeople learn about the customer's company and product, the company and product information of competitors, the history of the country, the language of the country and cultural practices of the country are not surprising. The type of knowledge structure that salespeople must acquire may be different for a cross-cultural sales situation (e.g., language, history, culture, etc.), but can be anticipated from and directly related to the model.

Previous research identified variables such as sales call planning (Given 1979), influence strategies (Spiro and Perreault 1979), sales position (Moncrief 1986), self-consciousness (Feigstein, Scheier, and Buss 1975) and rewards (Walker, Churchill, and Ford 1977) as being related to adaptive behavior. Informants in Japan indicated that traits of independence, openness to new ideas, an outgoing personality, and willingness to listen are important for successful salespeople. Identifying some specific traits related to success is certainly consistent with the Contingency Model. However, given that relevant personality traits of knowledge bases may

be different in another culture suggests that these variables need to be examined in more depth to provide useful information for salespeople and sales managers, as well as, providing direction for possible modification of the Contingency Model.

Characteristics of the Buying Task

Assessing the customer's knowledge base is one of the characteristics proposed in the Contingency Model that is appropriate when selling in Japan, but with a different perspective. Informants indicated that customers in the automobile industry will do "up front research" and cultivate a broad knowledge base before talking with a salesperson. Therefore, the sales transaction with the average customer (individual or distributor) is likely to be more technical using specific terms and jargon. That is, however, merely a difference in degree of knowledge, and does not necessitate a modification of the Model. In addition, the customer expectation is a high level of quality, no defects, according to the informants. While the level of quality expected may differ, high quality as an expectation in and of itself is similar to factors included in the Contingency Model, and does not suggest a change.

According to the informants, many of the distributors' buying decisions in Japan are made by a group of buyers, utilizing a team effort. This is similar to the concept of a buying center. However, since the buying center may eventually make decisions based upon a majority vote, the decision-making process used by the buying center in Japan is consensus building, which is considerably more time consuming. One informant reported that what might be a one hour meeting in the United States could be a 10-14 hour meeting in Japan. However, the difference is not whether a group makes a decision, but rather how (i.e., majority vote versus consensus building) the group makes a decision, and whether the style differences are significant enough to warrant modification of the model.

Salesperson/Customer Relationship

This factor of the Contingency Model assumes more importance in Japan than in the United States, and can be even more important than the sale process itself in Japan according to the informants. Building the relationship is likely to take longer in Japan, and is much more important at the beginning of a sales transaction in Japan than in the United States. For instance, prior to discussion the exchange of Meishi (i.e., business cards) and recognition of all members involved in the negotiation must take place. Trust as a foundation for the relationship is similar in the United Stated indicating a fit with the Contingency Model.

The interview data used in the above analysis indicates that the Contingency Model does fit well enough to be used in the present form to assess adaptive sales behavior in cross-cultural sales transactions. However, the interviews with informants revealed other factors in sales transaction between U.S. sellers and Japanese buyers that do not fit the Contingency Model as well.

Factors that Differ from the Contingency Model
Resources of the Salesperson/Customer

Motivation. Cultural differences between Japan and the United States play a major role when examining the construct of motivation. While motivation may be considered as one of the resources of a salesperson in the Contingency Model, the approach to motivation is different in Japan. While basic motivation, such as the desire to eat, have shelter, and provide for a family may be similar, motivations related to success may differ. According to the informants, loyalty to the company, the country, and one's family are important motivators in Japan. These loyalties are tied into the Japanese culture through "saving face." Salespeople meet their quota because they do not want to lose face (i.e., be held in disgrace by their colleagues). This intristic cultural norm reinforces the use of the team approach and consensus building and would not be consistent with the extrinsic approach to motivation in the form of compensation packages (i.e., straight salary, commissions, bonuses, and incentives). Individual factors are not related to success in the same way in Japan as they are in the U.S. Sales managers who do not consider the intristic motivation of the Japanese sales representatives cannot succeed.

Seniority. Organizational factors related to a salesperson's success are seniority, title, and responsibility within the company. The power and status attributed to a salesperson is very closely related to seniority and title within the organization, and has a significant effect upon the customer's perception of the salesperson.

A medium level of status with a high-level of seniority in Japan means that the person to whom you are speaking is not moving toward a high level executive position at an appropriate rate of progress. Therefore, the individual does not have much power or clout within the organization, and cannot be counted upon to greatly influence the decisions. This perception exists whether the customer is evaluating the salesperson or the salesperson is assessing the customer's influence upon the purchase decision.

Personality Traits. Along with cultural differences, some personality traits acquire more importance when selling in Japan. For instance, patience is critical for success. This is due to the emphasis on consensus, length of the negotiations and the closing process. In addition, humility is an important requirement for a successful salesperson in Japan. Given that the buyer is considered to be in the superior position in Japan (Graham 1989), and that the customer must be able to "save face" at all times, the salesperson must be humble when making sales presentations and conducting negotiations. Humility is not highly valued as a characteristic of successful salespeople in the United States. Therefore, the relationship between specific personality traits and effective sales may differ significantly across cultures.

Communication Skills. While listening and observing nonverbal feedback are important elements of adaptation during sales transactions, salespeople in Japan need to adapt to the communicative dimensions of the sales transaction in another way. In the first place, they must realize that the sales transaction is like a "chess match" according to one informant. Some of the moves are ritualized, and the format of negotiations is fairly well prescribed. However, the format used in Japan for negotiation is different from that used in the United States (see Graham 1989). While listening to the buyers, salespeople should listen for the "tone and not just the content." In a more homogeneous society, such as Japan, communication is often more implicit (Cateora), thereby decreasing the importance of the

content of the message, and increasing the importance of the form of the message. Secondly, silence is often used as part of the negotiation process and salespeople must learn to "feel the silence" according to informants. Silence may mean consideration, disapproval, or something in between. "Feeling the silence" and "absorbing the atmosphere" will indicate what the silence means. This type of adaptive behavior is not normally part of the set of personal resources of the salesperson in the United States.

Inherent differences in motivation, relevant personality traits, and appropriate communication skills certainly suggest that application of the Contingency Model will differ across cultures.

Customer Buying Task

The decision making process itself differs. One example is that many side conversations may occur during the sales transaction. This aspect of the buying task differs significantly from the buying process in the United States, where it would be highly unlikely for the members of the buying center to have conversations among themselves during a sales presentation. Not only would it be considered rude, it would also be revealing concerns about issues or topics to the salespeople that should be left private or confidential. Expecting decisions on one issue at a time or at the end of a meeting, will result in a great deal of frustration according to informants. Japanese buyers are more likely to make decisions only after consultation with the others away from the specific meeting. Salespeople in Japan will find it necessary to adapt to different decision-making styles and use different negotiating tactics.

These style differences are more pervasive than classifying the buying task as New Task, Modified Rebuy, and Straight Rebuy. This part of the Contingency Model may need modification for cross-cultural sales situations.

Salesperson/Customer Relationship

Trust. While trust is an important foundation for relationships in both Japan and the United States, relationships themselves are more important and have a fundamentally different meaning in Japan. Establishing the relationship requires several encounters before an outsider might even be considered to be accepted. For instance, one informant stated that salespeople will not be expected to conduct any sales for about 15-18 months in Japan. In the United States the credibility of the company may get the salesperson in the door and the individual sales representative can build a relationship over time by working with the customer. In Japan if a salesperson leaves the company or territory, the new salesperson must be formally introduced to the customer, and time is taken to build a new relationship, even though the customer is working with the same company. The up-front investment in building relationships before beginning the substance of the sales transaction requires a different set of behaviors for successful selling in Japan.

Networking. Because of the importance of relationships and the emphasis on harmony, networking assumes a major role in the process of selling in Japan. New recruits are evaluated, in part, based upon their networks and contacts, according to informants. This approach to networking is not the same as the Center of Influence method of prospecting that is discussed in sales texts. Networking in Japan is not only a matter of knowing someone, but also of having built relationships (i.e., reason for contacts and obligations) with people. This aspect of sales behavior is fundamentally different from sales behaviors in the United States.

Socializing. Part of the networking process involves socializing and gift giving, both of which involve a great deal of ritual and tradition in Japan. Drinking with employees, customers, contacts, and superiors is an important part of "heart to heart" communication that is necessary for building bonds of understanding between people. For instance, all the informants indicated that they have participated in singing with their clients at Kariochi clubs in order to ensure a strong relationship with their buyer. As such, this is a critical factor for developing relationships as well as for negotiating during sales transactions.

Gift giving involves many traditions and rituals and is intricately interwoven into the building of relationships and obligations. While gift giving plays a role in building relationships, informants suggested that U.S. salespeople should take care and not begin exchanging gifts with their Japanese customers too soon due to the incremental nature of gift giving. Each gift given and received needs to be of greater value than the previous gift; otherwise a person will lose "face," according to informants.

Creating and maintaining a relationship with buyers in Japan requires significant adaptation by U.S. salespeople. While some of the differences may be in degree (e.g., importance of the exchange of business or amount of time spent building relationships), others may be differences in kind (e.g., networking, creating obligations). The Contingency Model may require modification in these areas for cross-cultural sales situations.

Implications and Limitations

Since the Japanese language, culture, and history is considerably different from that of Americans, creating a great degree of psychological distance, salespeople would be expected to adapt behaviors to be successful. The Contingency Model identifies relevant categories of factors that affect the process of adaptation, and the sales behaviors involved in that process. The purpose of this research was to examine the applicability of the Contingency Model to sales transactions between salespeople from the United States and buyers from Japan. Officials having responsibility for training U.S. automobile salespeople in Japan were interviewed regarding the relevance of the Contingency Model in this cross-cultural sales environment (to either ultimate consumers or distributors).

Some of the situational characteristics and adaptive behaviors fit very well, with the Contingency Model delineating those pieces of information or skills salespeople need to acquire to sell successfully in Japan, and providing some guidance for appropriate types of adaptive behavior. However, the data gathered for this project suggests that some critical aspects of adaptive sales behavior in a cross-cultural setting are not covered within or by the Contingency Model.

Variables such as motivation, seniority (credibility), personality traits, communication skills, time (trust), networking, socializing and gift giving, as well as decision-making processes need to be reexamined and redefined or repositioned within the Contingency Model. Some of the differences documented in this study are substantial enough to suggest that salespeople trained in the United States will have great difficulty adapting their sales behavior either when negotiating to create channels of distribution or with consumers even if they follow the guidelines of the Contingency Model.

However, the sample for this study was very small and represented only one industry. Follow-up research is critical to answer several questions.

(1) Are there other areas of significant difference in the sales process between the U.S. and Japan?
(2) Do these and other differences occur across industries or do they only occur in the automotive field?
(3) Do these and other differences occur in other cross-cultural sales situations?
(4) Are the differences great enough to require a different model? Is a different level of abstraction necessary?

The significance of this research is to document the need for expanding our theoretical approach to cross-cultural sales transactions. Systematic research involving business culture characteristics that affect the process of selling, needs to be conducted to identify similarities and differences across cultures. As a result, more appropriate and generalizable models of adaptive selling can be created, thereby, facilitating investigation of the specific characteristics of adaptive salespeople, the range of influence strategies used, and the association between the cultural dimensions of selling situations and particular selling behaviors. Training programs can then be developed enabling U.S. salespeople to perform more appropriate adaptive behaviors in any culture.

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A COMPARATIVE ANALYSIS OF U.S. vs EUROPEAN PRODUCTIVITY TRENDS AND THEIR IMPLICATIONS FOR U.S. GLOBAL COMPETITIVENESS

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ABSTRACT

In recent times global competitive strategists and industrial researchers have almost exclusively concentrated on Japan's phenomenal rise in the world market. Comparatively little has been discussed in literature about Europe's (Western Europe) competitive position. The authors believe that with the steady strides in productivity, the amalgamation of the EEC into one entity in 1992 and East Europe joining the fraternity, in the 90's and beyond Europe will be as much a threat as an opportunity to the U.S., and has clear implications for the development of its global strategies. In this paper the West European productivity trends are discussed and their implications for U.S. global competitiveness explored.

INTRODUCTION

From a reading of the current business newspapers, magazine, journals and research literature, one discerns three deep seated perceptions in the minds of policy makers, industrial strategists and the public alike:

1. The U.S. has been, and continues to loose its competitive edge in global markets.
2. The competitive challenges and threats come from only Japan, rather than from other countries.
3. Europe in the 90's and beyond is a tremendous opportunity that has come just in time.

The first is true, the second is false and the third partly true. Both economic performance and competitiveness of the United States has declined since the mid-60's (Scott 1989). It has progressively lost its market leadership, since WW-II, as evidenced by huge trade deficits. It has often been argued that the shift to a service economy, and a decline in manufacturing, has been a major cause of this downtrend in competitiveness. Eckstein (1984) stated the importance of manufacturing as the principal vehicle for economic growth which raises the living standards, leading one to surmise it to be driver of competitive strengths.

Japan, as of now, is considered the foremost threat in the global markets. But they are not alone. Korea, Taiwan and other Asian/Latin American Newly Industrialized Countries (NICs) are a significant competitive force with a low cost advantage while European countries compete on the technological and productivity fronts. Keen observers would notice the manufacturing orientation of the economies of these competitors.

Finally, while Europe 92 (EC92) is no doubt an opportunity, it is as much a threat. Much has been written on strategies to tap its potential, but less about threats. It must be realized that opportunities in Europe[1] is open to all and U.S. will not be the lone player. To that extent the opportunity is muted. In addition, EC92 itself will be a much stronger competitive force in the world market, including in Western and emerging Eastern Europe. The market integration of Europe, unification of Germany, and the disappearance of "Eastern Europe" - all can culminate in the formation of a potentially more powerful -"United States of Europe". The integration will have a synergetic effect, positively accentuating EC92's competitive advantage in terms of production technology and costs. At present global strategists like Kemichi Ohmae (1986) consider Europe as one of the Triad in their 'Triad Power' Theory. As the total integration of EC 92 takes place and the erstwhile 'Eastern Europe' and 'U.S.S.R' (now CIS -Commonwealth of Independent Countries) provide additional markets for the European companies, they can be expected to emerge as the more powerful global competitors. One of the main driving forces for EC92 emergence is the European desire to strengthen their comp-etitiveness in order to become more formidable global competitors in the context of the triad power. Our purpose in this paper is therefore to focus on U.S competitiveness in manufacturing vis-a-vis Europe and address the implications for U.S. global strategies.

COMPETITIVE DIMENSIONS

Some key indicators of global competitiveness of a company are market share, profitability, real income to employees, productivity (manufacturing and service industries), relative unit costs for both capital and labor, and investment in the future such as in R & D, new equipment, new technology etc. Market share and profitability are exogenous and an outcome of the combination of various internal and external factors, not all of which are related to productivity or costs. Measures of market share and profitability are elusive, ambiguous and prone to some measure of subjectivity (Henderson 1989; Day and Wensley 1988) and inappropriate measures of competitiveness. Finally, market share can be used, in a limited sense, to measure competitiveness relative only to another company (or a country) which is marketing the same product. What, for example, is P & G's (or Japan's) competence in coal mining based on market share? Can the global competitiveness of U.S. in countries with closed economies, or those which have special treaties with specific other countries, be measured as a percent of market share?

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[1] Through out this paper we compare, contrast, and discuss the competitiveness of Western Europe, since the figures of, now defunct, "Eastern Europe" are refutable. Also, only selected leading countries have been chosen in this analysis. These are Germany, France, Belgium, Italy, U.K. and Switzerland.

More appropriate measures of competitiveness, in our opinion, are: manufacturing and service industries' productivity, average unit costs, and investment in the future. These are the fundamentals that give companies (and countries) the market share and profitability. As antecedents to market measures, they are better and stronger indicators of competitiveness. These measures can be utilized to measure the relative competitiveness of both manufacturing and services industries. In this paper we limit ourselves to these measures of competitiveness in *manufacturing* to compare and contrast the competitiveness of U.S and European countries. For reasons alluded to in the introduction, service sector productivity has not been compared. Another caveat is that we have focused on aggregate data that we believe are the appropriate measures when one is comparing national competencies. Thus it is quite possible that there are some specific industries in which our conclusions could be contrary to actualities. Finally, the time frames chosen by us to examine this issue can be debated. While there are means to collect reasonably accurate data for ever shorter periods we need to examine indicators of overall trends and there is great uncertainty about the time frames to be chosen for the purpose.

PRODUCTIVITY TRENDS IN EUROPE

'Europe has had a long history of manufacturing power and is still a major competition in the global manufacturing trade' [Columbia Journal of World Business, Fall 88, 13-15]. European productivity figures have never made headline news as those of the Japanese. The measures of inventory holding time, delivery, quality etc. among Japanese firms have been compared and contrasted in more depth. Often no such convenient data is available for Europe due to two facts:

1. European countries have never been consid ered a serious threat, with Germany some times being the sole exception.
2. Understanding Europe's productivity trends requires a collection of data for many European countries and combining them.

The data available suggests Europe's improving productivity. The growth rate in "Manufacturing Value Added", historically lower than that of the U.S., is expected to be better than that of the U.S. (Table 1). Greater stability in the growth rate of European productivity seen in this table is also predicted by other measures such as that of labor.

Table 1 & 2

The per capita GDP (Gross Domestic Product) of the U.S., Europe, and Japan (Table 2), for the years 1980, 1985, and 1987 reveals a slight U.S. lead over both Japan and Europe. But, as a measure of competitiveness per capita GDP is weak. While it indicates the production value, it does not indicate the value added or the efficiency with which the resources are utilized. Also, the value can be distorted by high value input factors and a low population. Finally, it does not indicate manufacturing intensity in the countries, which we believe is the fundamental driving force for the economic power of a country.

Manufacturing's share in the GDP is the lowest in the U.S. (Table 2), more stable in Europe and actually rising in Japan.Thus the fundamentals are strongest in Japan and stronger in Europe, indicative of Europe's ability to offer stiff global competition in the manufacturing sector in the coming future. This competitive ability is also reflected by the measure of "Degree of Specialization", which indicates that Europe, like Japan, relies on a greater degree of focus on areas that add better value vis-a-vis the U.S..

Though productivity in terms of gross output in terms of dollar per person is lowest in Europe, the gross output per labor dollar (Table 2) is better than in the U.S. by about 10%. This measure, stable in the U.S., is rising in Europe and falling in Japan! This trend suggests that, given the greater manufacturing intensity in Europe than in U.S., Europe may be on the road to becoming a strong economic power again though the value added per worker is about the same in Europe as in U.S, and 10% higher in Japan.

Productivity increases in Manufacturing has always been better in Europe (Table 3), except in 1986 and 1987. In 1988, the increase was much greater in Europe than in U.S. The signals are ominous. The data released by the Bureau of Census corroborates this (Table 4). The 'output per hour' index for Europe has been and continues to be better than U.S. In 1988 the average 'out-put per hour' was 150.5 (Base: 1977=100)--15% lead over U.S.

Tables 3 & 4

Capacity utilization rates in Europe is significant at 85.9%. (Table 5). Its improvements in production performance have been much greater than of U.S.(Table 6). Lead in labor productivity in the context of manufacturing (Table 7) shows a positive trend vis-a-vis U.S. All of the above portend a potentially strong European competition in the coming years.

Table 5, 6 & 7

INVESTMENT IN THE FUTURE

Europe's edge in this area is discernable. Using machine tool consumption as a surrogate for capital investment in the manufacturing sector, Europe's share of the world machine tool consumption is 33.2% (1988) compared to 10.9% of U.S. share resulting possibly from continued U.S. shift to the service sector throughout the 80's, weakening its manufacturing sector. Europe's accent on the future is ample evidence of the coming contest with U.S. for markets around the world.

Europe has also not let up on production of machine tools either. It has a 40.3% share of the world's production compared to U.S. position of 6.4%, partly explaining its better 'Export -Import' gap (Table 6).

Breaking up the machine tool production a pattern is discernable, which we believe should be of major concern to the U.S. strategists. European industries more closely follow Japanese production philosophies by investing predominantly in technologically superior manufacturing facilities such as NC machines. The competitive advantage that is being built by Europe with a focus on the future must concern the United States. Europe may be our next powerful challenger, given its planned investment in the competitive advantage that really matters -- MANUFACTURING.

IMPLICATIONS FOR U.S. GLOBAL COMPETITIVENESS

The importance of knowing one's own competition to tackle competitive threats cannot be overstated. From this perspective U.S. and its companies can be faulted for their lapses in their competitive intelligence in the past. The result has been the progressive decline in U.S. global competitiveness during the past three decades. However, in the 80's there was a growing concern with the seriousness of the competitive threats posed by Japan and other Asian newly industrialized countries. To combat these competitive threats U.S. has been pursuing both macro- and micro-level initiatives and measures. But the same level of attention and concern are not exhibited in relation to European competitive threats in the 90's and into the 21st century. The U.S. complacency toward the emerging and intensifying European competitive threats is comparable to similar complacency in the 60's toward the Japanese and other Asian competitive threats.If the European competitive threats in the 90's and beyond are ignored or underestimated, in our opinion the U.S. and its companies face a double-barrelled, more intensified threats both from Asian and European powers. This could have potentially more debilitating effects on the already declining U.S. global competitiveness. In this paper we have demonstrated that on a number of macro-level competitive measures Europe is either at par or exceeding U.S. This process of increasing European competitiveness is seen to be accelerating from the evidence on investments on future productivity gains. The projected EC92 fuller economic integration and the opening of the East European and CIS markets further facilitate the overall European competitive gains. In this analysis we have presented only the macro level comparisons in manufacturing between U.S. and Europe, pointing to the latter's gains in productivity and other critical competitiveness measures. For more pragmatic purposes of corporate management, similar and more detailed comparative competitive analyses need to be performed at the industry and firm levels. Such detailed analyses are beyond the scope of this paper. From the data presented in this paper, it is safe to conclude that in the 90's and beyond the U.S. is going to face intense competition from Europe. It is high time that this emerging and intensifying competitive threat is fully recognized and the necessary macro and micro level measurers are undertaken to combat it.

CONCLUSIONS

Europe is becoming a force to reckon with. The competitive environment in the global market, already witnessing unprecedented changes with the entry of countries such as Taiwan, Korea and others, will further undergo metamorphosis in future with Europe gaining more competitive power. The fundamentals are strong providing the Europeans with a competitive weapon that the U.S has inadvertently thrown away--the manufacturing edge. It is time for the U.S to lay greater stress in manufacturing and thereby improve its global competitiveness. Even the long term success of the service economy depends much on manufacturing strength. All indications are the world is moving in that direction, and the U.S. should not lag behind. If the U.S. is to avoid being squeezed out of the global markets by Japan, NICs and Europe, it is essential for U.S. to revitalize its industrial competitiveness.

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TABLE 1

MANUFACTURING VALUE ADDED (% GROWTH RATES)

	1985	1989*	1990*
WORLD	5.2	4.6	3.6
NORTH AMERICA	5.7	4.3	1.5
USA	5.7	4.5	1.5
WESTERN EUROPE	3.8	3.8	2.9
BELGIUM	4.3	3.4	2.3
GERMANY	2.8	4.8	2.6
FRANCE	5.3	3.2	2.7
U.K.	4.0	2.5	2.2
SWITZER-LAND	6.7	2.4	2.1

* Expected Growth Rates.

Source: Industry and Development, Global Reports, 1987, 1988, 1989: UNIDO, UN, NY.

TABLE 3

PRODUCTIVITY IN MANUFACTURING
(Percentage Change in Average Annual Growth Rates)

	1960-1970	1970-1980	1986	1987	1988
U.S.A.	2.7	2.3	3.3	3.4	3.2
FRANCE	6.7	4.5	1.9	1.2	5.3
GERMANY	5.8	4.3	0.0	1.3	4.6
U.K.	3.7	2.5	3.4	6.4	4.9
JAPAN	10.8	6.6	1.6	7.8	7.6

SOURCE: BUSINESS AMERICA, AUGUST 28, 1989 (U.S. Department of Commerce)

TABLE 2

INDUSTRIAL PRODUCTIVITY DATA FOR U.S., EUROPE AND JAPAN
(1980, 1985 & 1987)

	USA			EUROPE*			JAPAN		
	1980	1985	1989	1980	1985	1989	1980	1985	1989
Per Capita GDP[a]	11804	12898	13526	11855	12537	13155	9068	10628	11235
Manufacturing Percentage share	21.8	22.6	22.7	28.1	27.3	27.0	29.2	34.4	33.8
Industrial Production Index	100	113	120	100	101	105	100	119	123
PRODUCTIVITY									
Gross Output[b]	96674	130122	143340	81801	71096	119361	94662	103916	171469
Value Added[b]	40078	57191	66314	32872	28317	48106	33086	38747	65442
Average Yearly Wage[b]	16406	22683	24803	14478	11311	19051	11522	13653	23782
Degree of Specialization[b]	11.6	12.6	12.5	11.8	12.8	13.1	13.5	17.7	18.3
Gross Output[d]	5.9	5.7	5.8	5.7	6.3	6.3	8.2	7.6	7.2
Value Added[d]	2.4	2.5	2.7	2.3	2.5	2.5	2.9	2.8	2.8

* -- Calculations by the authors [a] -- in Millions of Dollars. [b] -- in Dollars per Worker
[c] -- Degree of Specialization. (Higher the measure, more the specialization within manufacturing)
[d] -- Dollars per dollar of factor inputs.

Source: Adapted from Industry and Development Global Report, 1989/1990, UNIDO, UN, NY. (pp A1-A119).

TABLE 4

OUTPUT PER HOUR IN MANUFACTURING ACTIVITY

	1970	1980	1985	1987	1988
U.S.A	80.8	101.4	123.6		132.0
136.2					
EUROPE	70.6	112.5	142.1		149.4
150.5					
GERMANY	71.2	108.6	128.4		129.9
135.9					
U.K.	80.3	101.9	134.1		147.6
154.9					
FRANCE	71.4	101.6	132.7		136.8
144.6					
ITALY	69.8	122.1	156.8		162.3
167.1					
BELGIUM	60.4	119.2	158.6		170.5
NA					
JAPAN	64.8	122.7	161.7		176.5
190.0					

BASE : 1977=100.

SOURCE: Statistical Abstracts of United States, 1990, U.S. Bureau of Census, Washington D.C., p 839.

TABLE 5

CAPACITY UTILIZATION RATE OF INDUSTRIES IN EEC MEMBER COUNTRIES (1988)

COUNTRY	CAPACITY UTILIZATION RATE
BELGIUM	79.1
GERMANY	86.5
FRANCE	79.0
ITALY	93.9
U.K.	85.9

SOURCE: Industry and Development Global Report, 1989/90, p.41, UNIDO, UN, NY.

TABLE 6

PRODUCTION & TRADE IN MANUFACTURING
(Percentage increase between 1970 and 1985)

	PRODUCTION	IMPORT	EXPORT
U.S.A.	890	1580	1100
EUROPE	1042	1534	1476
GERMANY	580	1030	1010
FRANCE	1100	1580	1570
ITALY	1650	2130	2150
BELGIUM	860	1220	1160
U.K.	1020	1710	1490
JAPAN	960	1000	1280

SOURCE: O.E.C.D. Compatible Trade and Production Data Base, 1970-1985, (Working Paper). November 1988, OECD, Paris.

TABLE 7

EVOLUTION OF LABOR PRODUCTIVITY IN MANUFACTURING INDUSTRIES (1975=100*)

COUNTRY	1976	1977	1978	1979	1980	1981
U.S.A.	104.8	108.3	109.5	109.6	107.7	110.7
GERMANY	110.3	113.5	114.9	119.7	119.6	120.8
FRANCE	108.2	112.7	118.1	123.3	124.7	125.5
ITALY	113.0	118.0	121.4	129.5	135.5	136.5
U.K.	105.3	106.6	107.8	108.9	104.8	110.4
BELGIUM	113.1	118.9	125.1	133.6	134.7	138.9

* GDP at constant prices (1975)

\# of persons employed

SOURCE: Productivity in Industry: Prospects and Policies, O.E.C.D, GENEVA, 1986

SOUTHEAST ASIAN PERCEPTIONS OF U.S. AND JAPANESE IMPORTS: A CROSS-NATIONAL COMPARISON OF COUNTRY-OF-ORIGIN EFFECTS

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Abstract

When countries differ in the perceived quality of their exports, **country-of-origin labeling** influences consumer choice. The influx of U.S. and Japanese products in Southeast Asia markets (SEA) offers a testing frame suitable for investigating perceived differences between imports produced in the two nations. This study extends the ethnocentric perspective generally employed in country-of-origin research by examining how U.S. and Japanese imports are stereotyped in SEA marketplace. The results suggest meaningful but manageable differences exist in SEA consumer's perceptions of American and Japanese product quality. Implications for U.S. promotional and positioning strategies are discussed.

Introduction

Consumers' knowledge of the country in which products are produced is widely regarded as an important influence on decision choice behavior (Bilkey and Nes 1982). A substantial country-of-origin research tradition exists in which the stereotyped views held by American consumers toward imported goods have been examined (Hong and Wyer 1989). However, the utility of this evidence on the influence of country-of-origin is constrained by the ethnocentric perspective that has generally been adopted by those operating within this research stream. The manner in which products originating from within the United States might be stereotyped by individuals in foreign markets has rarely been investigated in the domestic marketing literature. However, the topic represents a pivotal concern since international sales are increasing at least 50% faster than domestic revenues for those businesses with worldwide brands (Goodman 1991).

While its significance may be obscured by the chronic clamor arising over imagined or bona fide barriers to trade in the Japanese market, an extensive Southeast Asian (hereafter SEA) trading area exists apart from Japan. America's SEA trading partners, which include Malaysia, Singapore, Thailand and Indonesia, are thriving. Capitalism has flourished in this area, while democracy has enjoyed sustained and substantial progress. For nearly 45 years, the U.S. usually held economic sway in these SEA nations through a combination of Pax Americana and the dollar's power. Unfortunately for the United States economy, American traders are now doing substantially more buying than selling in this region (Krueger 1990). Japan is America's primary trading competitor in the SEA market (Krueger 1990).

Background to the Research Objective

Country-of-origin stamps are now legally mandated in international trade. These markings have raised consumer awareness of product source nations (Cordell 1991). Consumers frequently use country-of-origin information as a heuristic device when choosing products (see Bilkey and Nes 1982; Wall, Liefeld and Heslop 1991 for reviews). Japan has been particularly effective in exercising these labels as a promotional device to instill consumer confidence in the associated product.

Consumers continually strive to streamline their marketplace decisions (Belonax and Javalgi 1989). However, consumers are confronting an ever-growing number of purchase alternatives from which to choose in virtually all nations (Netemeyer, Durvasula and Liechtenstein 1991). At the end of four consecutive decades which blended an increasing internationalization in trade with advances in domestic industrial productivity, Southeast Asians now encounter a surfeit of national producers and brands from which to choose. It appears likely that SEA consumers also engage assorted cognitive simplification processes in an effort to manage and reduce the number of options considered in purchase decisions.

In order to compete successfully, marketing managers need insight into and empathy for the diverse needs and preferences of consumers in the various international markets within which their firm may interact (Darling 1985). An understanding of consumer attitudes toward products made in different countries plays an important role in determining successful marketing strategies (Terpstra 1983). Nishima (1990) suggests it is particularly necessary to "localize" one's marketing mix strategy when marketing exports to an Asian market. Such "localization" efforts should extend beyond simply modifying products or shaping promotions to reflect an Asian tone.

When formulating marketing programs for exporting to a region contiguous to what many consider to be a Japanese lake, U.S. marketers should become better informed regarding the comparative attitudes held by those in the region toward American and Japanese exports. SEA consumers may impute stereotyped characteristics to imports based on the product's country-of-origin in a manner similar to the prejudicial judgements that have customarily been ascribed to the U.S. population. If SEA consumers are observed to generalize in this manner, those charged with marketing U.S. products to this market would benefit by accounting for such comparative biases and predilections.

An imported goods' country-of-origin may trigger cognitive concepts that influence interpretation of other available product information (Hong and Wyer 1989). These inferred evaluations embrace halo effects or stereotypes (Beckworth and Lehman 1975). Varying levels of belief ratings are usually associated with these attribute sets (Erickson, Johannson and Chao 1984; Johannson, Douglas and Nonaka 1985).

Consumers tend to hold stereotyped perceptions of different countries as producers of goods. These stereotyped perceptions have generally been related to purchase intentions (Wall, Liefeld and Heslop 1991). Historically, national images have played an important role in buyer's evaluations of products (e.g., Chinese silk, Scotch whiskey, Japanese electronic components). There is evidence that this national influence is becoming even more important in today's markets (Papadopoulos and Heslop 1990). To the extent that an individual has a negative image of a nation, s/he is likely to develop a negative image of the nation's people, and vice versa. This, in turn, may influence that individual's belief struc-

tures regarding that country's exports in the same direction (Chao 1989). Southeast Asian consumers may use country-of-origin as a proxy indicator of product quality or social responsibility.

An import's country-of-origin is a cue from which the consumer makes inferences regarding the product (Cordell 1991). The country-of-origin identification may be positioned in a manner analogous to how other image oriented factors such as brand names, advertising or product endorsements are used. The initial country-of-origin cue may trigger a global evaluation by which SEA consumers infer all manner of quality, performance or product characteristics that they elect not to evaluate directly.

Consumers possess a strong preference for the product attributes on which objects differ since those attributes offer a clearcut choice between the products (Chaffe and McLeod 1969). Each **favorably** evaluated product characteristic which also **discriminates** among the imports of competing nations should increase the consumer's comparative confidence in the product while reducing the comparative risk perceived to be associated with purchase. Conversely, perceptual attributes which fail to discriminate U.S. from Japanese exports are not likely to influence consumer decision making because they fail to provide determinant information.

Research Objective

The objective of this research is to compare and contrast the perceptions held by SEA consumers toward U.S. and Japanese imports. If differences are observed to exist in the evaluations of import attribute ratings accorded to U.S. as opposed to Japanese imports, it may be possible to develop inferences for the construction of promotional strategies associated with Southeast Asian exports.

The Study

Perceptual Measures

In this study, the concept of perception refers to various beliefs, feelings and opinions held by SEA consumers toward exports from the U.S. and Japan. This approach to measuring import perceptions should result in a composite "made-in" image composed of the mental facsimile, reputation and stereotypes associated with products made in the countries of interest. A generic "made-in" image such as this intrinsically addresses supplementary variables such as representative products, national characteristics, and the economic and political backgrounds associated with the two nations (Nagashima 1977).

Thirteen brief descriptive statements were included in the instrument. The statements specifically addressed the sample's belief structures regarding a set of generic traits which are universally associated to a greater or lesser degree with any imported product. Those sampled were also asked to respond to several demographic questions.

Sample Frame

Consumers from various SEA nations were contacted during the summer of 1991 in Kuala Lumpar, Malaysia. These individuals were contacted through the shopper-intercept method. Trained employees of the Tourist Development Corporation representing the Malaysian Ministry of Culture and Tourism conducted the interviews.

Specifically, consumers were intercepted in three major shopping centers located in the central buying district of Kuala Lumpur: **Bukit Plaza**, **KL Plaza**, and the **Weld**. While the mall intercept does not always provide samples representative of a SMSA, shopping mall customers constitute a major share of the market and therefore generally comprise an adequate sampling universe (Tull and Hawkins 1990). This sampling procedure is also appropriate because the majority of imported goods in Kuala Lumpar are sold through retailers located in these shopping centers. It was also believed this sampling method would yield a more sophisticated shopper who possessed a greater awareness of imported goods. The procedure resulted in 152 usable instruments.

Kuala Lumpar is the capital of Malaysia. Kuala Lumpar has rightfully acquired a reputation as a major retail center in Southeast Asia, rivaling shopping districts in downtown Singapore. The shopping complexes in which the interviews were conducted are among the largest in the region. They offer a great diversity of international brands. The set of those sampled represent, in a nonproportionate manner, the opinions of Malaysians, Thais, Singaporians, and Indonesians. While some such individuals were initially contacted, U.S. and Japanese natives were excluded from the final total of 152 respondents.

Selected demographic and national characteristics of this sample are presented in Table 1. The sample is relatively well educated and affluent. These circumstances constrain the generalizability of these results to SEA rank and file. However, the attitudes of this comparatively upscale sample are likely to be of greater interest to U.S. marketers because they represent a primary target audience for comparatively expensive foreign imports.

TABLE 1
DEMOGRAPHICS OF SEA CONSUMER SAMPLE

DEMOGRAPHIC MEASURE	RESPONDENT PERCENTAGE
SEX	
Male	57.6
Female	42.4
AGE	
20 to 24	17.4
25 to 30	21.2
31 to 39	32.5
40 to 54	17.4
55 to 64	7.5
65 to --	3.7
MARITAL STATUS	
Married	53.0
Single	26.5
Separated	11.2
Divorced	1.5
Widowed	7.8
OCCUPATION	
Professional/ Managerial/ Entrepreneurial	49.2
Blue Collar	19.5
Students	10.8
Other	19.5
Retired	1.0
EDUCATION	
High School	25.8
Some College	37.9
College Degree	16.7
Graduate Degree	18.2
Other	1.4
INCOME	
Per Month	3000 Ringit[1]

[1] While the exchange rate is dynamic, 3400 ringit currently represents U.S. $14,216.01.

Analysis Procedure

An imported good's **country-of-origin** is a categorical designation extrinsic to any other product characteristic. This property permits the U.S. or Japanese country-of-origin designation to be used as an independent variable that may influence the manner in which SEA consumers characterize imports. The sample's evaluation of various traits of U.S. and Japanese imports functioned as the dependent variables. Multivariate differences in these perceptual evaluations of the respective country's imports was then tested through the MANOVA procedure.

MANOVA is appropriate when there are multiple intervally scaled criterion variables (the perceived import characteristics) and one categorical predictor variable (the opposing country-of-origin designations). If overall multivariate differences are detected, it is appropriate to conduct further analysis to determine where the differences occur. Darden and Perreault (1975) demonstrated the utility of using Multiple Discriminant Analysis (MDA) in conjunction with MANOVA to ascertain the direction and intensity of the relationships. While MANOVA tests for significant departure from the null hypothesis of no perceptual differences across the nation's imports, MDA determines the weights of the combination of criterion variables which optimize departure from the null. Examining the contribution of each evaluative dimension to the discriminant function can facilitate interpretation of the perceived differences between the two nations.

Results

The MANOVA analysis revealed the presence of significance differences regarding the manner in which the SEA sample perceived the characteristics of imports from the U.S. and Japan (p=.000). The MDA was then conducted to determine the direction and intensity of the univariate relationships. The degree to which the descriptive traits characterized the imports from the two countries-of-origin was observed to differ for five of thirteen perceptual items. The importance of each criterion variable in discriminating the country-of-origin classifications was evaluated through examining the relative magnitude of the canonical loadings. The perceptual characteristics exercising the most influence on the overall differences in import perceptions across the countries-of-origin were, in descending order: "hard to find," "poorly constructed," "high quality," "expensive," and "desirable." Japanese imports were evaluated more favorably on four of the five significant perceptual dimensions. When contrasted to the U.S., Japanese imports were perceived to be better constructed, of higher quality, less expensive and more desirable. Japanese imports were perceived to be significantly harder to find. This finding is possibly due to the Japanese import's greater desirability, which could result in lesser availability.

The overall mean scores suggest that products from either country are, in general, highly regarded in the SEA marketplace. Uniformly favorable evaluations of each exporter were observed across the "reliability," "style," "durability," "quality materials," and "craftsmanship" dimensions. On those dimensions where the U.S. was significantly less favorably evaluated the mean scores were still promising; the results simply suggest that Japan currently enjoys the **more** desirable of two rather auspicious import images in Southeast Asia.

In a paradoxical way, the presence of **nonsignificant** results on several import characteristics is illuminating. Possibly the most interesting result was that the overall product superiority, craftsmanship and durability were not regarded as salient differences between goods originating in the U.S. and Japan. This suggests the U.S. may be perceived on equal footing with Japan in terms of production capabilities, a perception that is seemingly contrary to U.S. consumer perceptions. The overall image of U.S. as opposed to Japanese products in the SEA market likewise appears more favorable than may have been **a priori** supposed by many domestic marketers. These results may be partially attributable to the generally positive image that Americans as a people enjoy in the SEA region. In fact, the results may only appear surprising since they partially contradict criticisms levied against the quality of America's output in the domestic press.

The canonical loadings along with the group means and multivariate and univariate significance levels associated with this analysis are given in **Table 2**.

TABLE 2
MULTIVARIATE DIFFERENCES IN SEA CONSUMERS' EVALUATIONS OF U.S. AND JAPANESE IMPORTS

Import Characteristic	Discriminant Loadings	Mean Evaluations[2] Japan	U.S.	F-ratio	Level
Hard To Find	.553	1.68	2.09	13.466	.000
Poorly Constructed	.504	1.76	2.08	11.191	.000
Of High Quality	-.349	4.32	4.04	4.992	.021
Expensive	.313	3.69	3.94	4.329	.038
Desirable	-.292	3.96	3.75	3.767	.053
Generally Superior	-.254	4.02	3.84	2.835	.093
Poor Imitations of Better Products	.217	2.15	2.33	1.931	.168
To Be Avoided	.209	1.89	2.03	1.588	.209
Items of Real Craftsmanship	-.137	3.37	3.23	1.060	.304
Made of Lower Quality Materials	-.136	2.10	2.00	.817	.367
Reliable	-.129	3.93	3.85	.599	.440
Of High Style	.126	4.14	4.06	.578	.447
Durable	.031	3.73	3.76	.437	.834
MULTIVARIATE TEST OF DIFFERENCES				41.924	.000

[2] Import characteristic items were measured on a five-point scale with (1) Indicating Strong Disagreement and (5) Indicating Strong Agreement that item accurately describes a characteristic associated with the country-of-origin.

Discussion

Country-of-origin stereotypes are generally assumed to be deeply entrenched and enduring in their influence on the consumer. The influence of such stereotyped beliefs are especially pertinent to the export manager responsible for positioning a firm's products in various foreign markets. The influence of country-of-origin stereotypes are likewise important for those who manage the competitive interaction of their firm's offerings with other imported alternatives within a particular foreign market (Cateora 1983; Darling and Arnold 1988). However, the effects of country-of-origin stereotypes should not be viewed inexorable. A nation's image as an exporter can be improved through promotional efforts (Chao 1989; Perry, Izreli and Perry 1976).

The U.S. currently faces a trade deficit in the SEA market. One reason for this shortfall may lie in the comparatively superior import image maintained by Japan on a relatively few product dimensions. Japan is a powerful trading adversary. Any effort to downgrade the image of their products would hold little curb appeal and still lower prospects for success.

The results of this study instead suggest America's relative trade standing in the SEA region could be enhanced though the initiation of **directed** image building promotions. These promotions should have the goal of transforming specific perceptions held toward U.S. products by SEA consumers.

This study offers insight into the comparative status of US and Japanese imports in SEA markets. Japanese imports were perceived as significantly more favorable on four dimensions. On a fifth dimension, availability, U.S. imports were significantly more favorably perceived. A larger subset of import dimensions exist on which the U.S. and Japan were perceived in an equally favorable manner.

The smaller subset of significant import dimensions should hold primary interest to U.S. marketers and policy makers. Consumer beliefs toward those import features where a significant perceptual difference was observed to exist between the nations may be described as having a determinant influence on the choice process (Myers and Alpert 1968). Consequently, the manner in which U.S. imports are perceived to be assembled, their perceived excellence and their perceived worth apparently represent the features most likely to predispose SEA consumers toward a preference for Japanese imports. Any ameliorative image building strategy should be constructed with these import features in mind. The fourth determinant perceptual attribute, "desirability," represents a cumulative function of numerous other perceived features. The remaining import characteristics -- no matter how favorable they appear to the U.S. -- are not likely to prove determinant in a decision between an American or Japanese import.

The harder one swings at any particular target, the more likely is one to miss the mark entirely. Similarly, U.S. traders should rein in any desire to throw knockout punches against Japan. U.S. promotional efforts in the SEA region should instead be guided by the goal of augmenting the perceived and actual value received by those who purchase U.S. imports rather than denigrating Japanese imports.

Legislative views on initiating minimum export standards are thought to depend on whether the "exporter is already established" (Falvey 1989, p.617). SEA consumer's perceptions of product quality could be favorably shaped if tougher standards for U.S. exporters were implemented. If new standards went beyond nominal product safety, hygiene or health restrictions, there may be great promise for improving collective perceptions of U.S. imports abroad. The concept of a reputation premium illustrates the opportunity to cultivate brand loyalty based on country-of-origin. Where the imported product's quality if unknown, consumers appear to use country-of-origin as a method of differentiation. If properly promoted, the U.S. mark of origin can serve an informational function as an indicator of product quality.

Consumer perceptions of import's quality are related to previous experience and/or the acquisition of product information (Mayer 1982). The tenor of these results suggest U.S. merchants should pursue a two-stage rehabilitative strategy. In the first stage, the U.S. should strive to gain equivalence with Japan on those dimensional areas where they currently occupy an inferior status. In the second stage, U.S. policy makers should closely define the import features/attributes on which their nation may be best able to compete in the SEA market. Production and promotional energies should then be directed toward those features with the objective of gaining a competitive advantage. Garvin (1984) concluded that being the leader in a market does not require that one be first on all product characteristics. In fact, this is de facto impossible, unless exorbitant prices are charged. These results suggest the U.S. is more likely to market successfully to the SEA region through adapting a marketing strategy where it selects a small number of dimensions on which to compete, and then tailors its production/positioning mix on the basis of the perceptions of this particular dimensional set.

The generalizability of these results are limited by the sample size and by the fact that only a generic view of the two countries' imports was gathered. However, research has shown significant country-of-origin effects to be constant regardless of whether imported products in general, particular classes of products, or specific product items were investigated (Gaedeke 1973). Future research could center on developing these inferences on a product category basis and determining which communication media and messages would be most effective in influencing country-of-origin image in the SEA market.

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A LOOK AT RECENT EC TV ADVERTISING REGULATIONS

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Abstract

This paper examines recent changes in the EC's regulations, directives and restrictions which impact EC television (TV) advertising. Significant growth and privatization when combined with the development of satellite systems has resulted in a great deal of concern for Euromarketers related to the "harmonizing" of EC regulations for the targeted December 31, 1992 creation of a single European marketplace.

The Importance Of Regulations

The editor of Advertising Age stated, "Advertising is no ordinary industry that can survive and prosper simply by unequivocally asserting its rights. Because it's a privileged business - its product a form of constitutionally protected communications - it has a responsibility beyond the law to discipline itself. It has evolved into a business that must take account of societal interests that transcend narrow parochial gain."(Staff 1989) The National Association of Attorneys General in the Untied States moving aggressively against false and deceptive advertising has recently asserted that "uniform national standards, vigorously enforced and consistently interpreted, would be preferable."(Colford 1989) These viewpoints suggest that in the United States advertisers must be concerned about ethical behavior while regulators are concerned about insuring that ethical behavior. EC advertising regulators have similar objectives. Regulatory commissions seek to end fraudulent advertising through combinations of guides, policy statements, and rule makings. This paper will examine some of the most recent changes in the EC regulations of television (TV) advertising.

EC Regulatory Actions

Like the U. S. Federal Trade Commission, the EC Commission proposes and enforces EC regulation. Bills must pass the European Parliament. There are directives for specific industries, such as alcohol or toys. For example, the EC is considering restrictions on television advertising of toys or banning all advertising aimed at children.(Foltz 1990) Directives such as these set European-wide rules and standards that will allow the free movement of goods, services, people, and capital while promoting a socially conscious and cohesive Euromarket. Originally, the 1992 initiatives numbered approximately 300 which required approval by a majority of EC member nations. It takes much time to pass a directive into a formal regulation. For instance, it took two years to get EC approval for the important directive concerning transnational TV broadcasts, setting up uniform guidelines for inserting commercials into programs.(Cote 1989)

The EC Commission also ensures that competition is fair and not distorted in favor of any one entity. For example, under a provision of the 1956 Treaty of Rome, an agreement that initially established the EC, the Finivest holding company, owned by Italian TV magnate Silvio Berlusconi, was charged with violating limits on the level of ownership of available advertising space and time. (McCarter 1990) Competition was obstructed and the EC Commission enforced its rulings.

The EC is currently considering hundreds of proposed regulations determining, among other things, what can be advertised and exactly what kind of claims can be made in the advertising for some products. EC rules are supposed to take precedence in member countries, but a nation may maintain its own rules if they are more restrictive. For instance, advertising for alcohol and tobacco are already restricted in many European countries and EC regulations being considered could further restrict or even ban such advertisements. Since individual nations may still maintain stricter regulations than those imposed by the EC, advertisers will need to continue to be aware of the mirade of country specific regulations.

The Harmonization Of Advertising Regulations

There are many problems associated with the standardization of EC ad regulations by 1992. Each member country brings varied economic, social, and philosophical backgrounds to the Euromarket, and not all will welcome free and open use of advertising. A consensus in ad regulations among member nation has presented much conflict. In Greece, for example, toys cannot be advertised on television, and in Denmark, magazines cannot carry any ads for pharmaceutical products.(Foltz 1990) Some complain that the European Parliament is increasingly hostile to marketing and advertising and that the Commission's harmonization is favoring strict regulations. The commission currently is concerned with regulatory proposals that span both industries as a whole and specifics within industries: TV directives forbidding subliminal advertising, a ban on all forms of tobacco advertising, prohibitions of advertising for alcoholic beverages that promise sexual or social success, and regulations concerning nutritional and health claims. (Giges 1990) Thus, some admen conclude that the commission is unfriendly towards advertising, and that the parliament, made up of "health-obsessed, anti-materialist children of the 1960's," is even worse.(Staff 1990a)

Resistance To Advertising Regulations

Is this maze of national regulations stunting the growth of Euromarket promotions? Many EC interested advertisers feel that the potential anti-advertising laws and rulings could completely undermine the ideal of one common market in which all companies can market their goods and services without suffocating restrictions. If advertising is so restricted that no one knows of the products available, then it will not be as advantageous to ship products freely throughout Western Europe.(Staff 1990b) There is a concern that the EC might become more tightly restricted than the United States. Debra Miller, an international economist with the office of industrial trade at the Commerce Department, said, "European countries have a tradition of more state intervention in the marketplace."(Foltz 1990b) Thus, the concern that rigid legislation will be set that will span across other laws that are already less restrictive.

Lobbying Against Strict Advertising Regulations

The International Advertising Association (IAA), a New York-based organization which states that one of its main jobs is fighting for commercial freedom of speech, notes advertisers feel compelled to speak out against strict and unfair restrictions. (Giges 1990) Some observers suggest that many ad restrictions are simply back-door ways to protect local markets by discouraging new competition.(Staff 1990b) For example, the French cabinet recommended an approval of a measure to ban most tobacco and some alcohol advertising by January 1, 1993. Is this ban an effort to protect a state-owned tobacco monopoly under the pretense of a health issue? Some conclude that if tobacco advertising is banned then United States imports will not be able to compete.(Giges 1990)

Is it already to late for lobbying? Ronald Beatson, Director General of the European Association of Advertising Agencies asserted, "The time to start lobbying is now, when the regulations are being formulated. Once the rules are written they will be almost impossible to change."(Foltz 1990a) At the time of writing the results of lobbying efforts are still uncertain, however the following sections detail organizations involved in lobbying efforts.

Advertising Organizations And Their Lobbying Activities

There are a number of organizations formed to protect the interests of advertisers. A few of these that can influence regulations within the EC are the British Advertising Association, the European Advertising Tripartite, the European Association of Advertising Agencies, the World Federation of Advertisers, the Point of Purchase Advertising Institute Europe, the United State Leadership Council on Advertising, and the previously mentioned International Advertising Association and European Association of Advertising Agencies.

The British Advertising Association holds much power; they mainly strive to keep advertising a freedom and to lessen restrictions upon it. It brings together the advertisers, the agencies, and the media. The Association has geared up to defend products which they reckon are the most vulnerable: tobacco, alcohol, food, pharmaceuticals, and financial services.(Staff 1990a)

The European Advertising Tripartite, a pan-European group, is affiliated with the European Association of Advertising Agencies, but it is expected to become independent soon. The tripartite is a Brussels-based organization which represents agencies, clients, and the media.(Giges 1990) Philip H. Geier Jr., Chairman and Chief Executive Officer of Interpublic Group of Cos., stresses that the European Advertising Tripartite is the right group to fight EC proposals to regulate advertising, since he believes that existing Pan-European organizations are too weak to effectively lobby the EC. The Tripartite is the major body through which other groups, such as the World Federation of Advertisers, and local groups can work to combat EC advertising restrictions.(Hill 1990) Angela Mills, Director of Special Issues and European Affairs, has indicated that the industry is already working together to fight regulations. She explained that the British Advertising Association funded a group of consultants that created the plans for the Tripartite's Pan-European lobbying efforts. The most recent plan's objective is "to alter the political environment in which advertising is perceived." She also remarked, "Advertising really has a bad image," and "Advertising is seen [by many EC politicians] as the most visible symbol of capitalism and that there's something inherently wrong with it."(Hill 1990) Thus, the Tripartite plans to deal directly with EC members to explain how advertising helps consumers, the economy, and the media. The Tripartite will also act as an adviser to national groups, lobbying their own legislators, and boosting awareness of the problems of stricter regulations.

Other organizations focus on other effective methods.

The Point of Purchase Advertising Institute Europe, which opened in June 1989 in Paris, serves as an information exchange, provides networking opportunities, and keeps abreast of EC legislation. (Bowes 1990) The Leadership Council, an ad hoc lobbying group, is a group of Chief Executive Officers from major media, agency, and advertising companies. They concentrate on lobbying, but have no formal structure to their efforts.(Hill 1990)

Changes In EC TV

In most parts of the EC, advertiser demand for TV dramatically exceeds supply. The trend for EC TV is channels that deliver programs capable of attracting mass-market audiences and financed to a greater degree by advertising. Consequently, there is an increase in private channels, satellite systems, and TV advertising for Euromarket products.

The Privatization of Channels

Most countries are now allowing private TV channels to compete with state owned channels which previously enjoyed a monopoly. One of the biggest reasons for the recent growth in advertising spending, especially in a few EC countries, is this increase in commercial TV time due to these new private channels.

Satellite TV Systems

There also has been a liberalization of the EC's satellite communications market and consequently satellite TV systems have been proliferating rapidly. Dozens of satellite delivered channels have been launched. Experts say EC TV has been shaken by the arrival in the last three years of these Pan-European satellite channels like Sky Channel and Super Channel. These channels, broadcasting in English, were among the first in Europe to be conceived as an advertising medium.(Cote 1988) Saatchi & Saatchi Compton Worldwide, projected that TV advertising revenues in Europe would increase from five billion dollars in 1986 to nearly seven and a half by 1990.(Tully 1987)

The Euromarket and TV

The growth of EC TV advertising could be a marketing revolution. The advent of multinational TV networks has sparked a potentially powerful new trend - advertising that helps global companies treat the EC as a single mass market instead of a patchwork of national markets. Companies may be able to successfully advertise their uniformly brand named products (such as Coca-Cola, McDonald's, and Mattel) on EC TV and reap big savings.(Tully 1987) The same spots, could theoretically run in different countries, only differing in voice-

overs. And companies could use the same packaging, allowing for various translations of instruction, etc.(Cote 1988)

However advertisers foresee troubles ahead in planning TV campaigns for the Euromarket as long as audience measurement techniques and analysis differ for each country. They have been pushing for universally accepted research parameters to compare audiences in one country to those in another.(Cote 1988) Currently, agencies often must produce several separate versions of the same commercial to comply with various national regulations, and also to take into consideration differing social and economic conditions. Thus the theoretical single ad with various voice-overs may not become a feasibility in the immediate future.

TV Advertising Restrictions and Allocations

Although there are rules for television advertising across frontiers, TV commercialization policies vary widely by country. TV advertising in many EC countries was severely restricted. As late as 1988, television commanded a low share of advertising expenditures: West Germany-9%; Netherlands-5%; France-17%. There were many reasons for this: limited commercial TV availability; restricted TV commercialization policies; stringent television time buying guidelines; and an extensive and well established magazine and newspaper industry (i.e., a high literacy rate).(Link 1988) For instance, in terms of television buying, the national TV outlets in Germany and France sell their time on an up-front, non-cancelable basis. Options do not exist; scatter does not exist. It is a "first come, first serve" business.(Link 1988)

There has been a difficulty in EC consensus of rules for satellite communications. Growth in the satellite communications market has been constrained by a maze of protectionist national regulations. National telecommunications monopolies are not allowing the satellite market to develop quickly enough. A few EC countries remain jealous of protecting their state telecommunications monopolies.(Staff 1990c)

Germany

In 1987, the three state-owned German networks banned commercials in prime time, all day Sunday, and public holidays. (Tully 1989) Deregulation in Germany moved slowly, in 1988 the three state owned networks limited ads to only twenty minutes a day and 82% of advertising expenditure still went to print.(Wentz 1988a) Currently, TV regulations still restrict spots to four five-minute blocks. However, Germany's two privately owned TV stations, transmitted largely to cable TV homes, are permitted to devote up to 20% of airtime to commercials.(Wentz 1988b)

The Netherlands

Advertisers complain of strict regulations in The Netherlands. TV spots on Dutch networks are limited to 5% of airtime and must be booked up to a year in advance. Dutch advertisers also dislike programs which do not have fixed time slots, making it impossible to plan commercial buys around desired programs. Thus, they have been pressuring the government for more commercial time on the three state owned channels. In June 1988, the European Court ruled that the Dutch government cannot stop advertisers on satellite TV channels from aiming their spots specifically at Dutch viewers by subtitling or dubbing them in Dutch.(Wentz 1988b)

Denmark

Advertising has been banned on most over-the-air stations in Scandinavia.(Tully 1987) However, in 1987 Denmark phased in the use of TV advertising. Denmark had been Europe's most limited TV market with only one government owned national station. On October 1, 1987 TV South was the first of seven or eight Danish channels that formed a second national network called TV2.(Bartal & Wentz 1987) Kai Hansen, Chairman of Young & Rubicam, believes that it is still too early to tell how much TV advertising will elevate total advertising spending in Denmark. However, total advertising expenditures increased by 40% in Austria and 20% in Holland after those two countries allowed TV advertising. He adds, "The problem now is waiting for the whole of Denmark to get TV advertising."(Bartal & Wentz 1987)

The United Kingdom

The British TV market has been growing rapidly. Anthony Simonds-Gooding, former top Saatchi & Saatchi Co. executive and Chief Executive Officer of the British Satellite Broadcasting (BSB), commented that commercial time was expected to more than double when the United Kingdom's three channel direct broadcast by satellite service was launched at the end of 1989. He also mentioned that the BSB has a business plan calling for two and a half million of the nation's twenty million TV homes to acquire satellite dishes to receive BSB transmissions by 1992 and five million by 1995. (Wentz 1988b) Moreover, the anticipated addition of a fifth British TV channel in 1993 should also help keep the TV market growing.(Wentz 1988a)

In the United Kingdom, advertisers are active in lobbying the government for more TV commercial time. They have backed a study documenting the adverse economic impact of the current system and have tried to influence government examinations of the future of British broadcasting.(Wentz 1988b)

France

Recently, France has been lessening their TV ad restrictions. In 1986, TV commercials filled seven hours a week. However, in 1987 spots aired twenty hours a week, when two new channels started and TF-1, France's largest channel, was deregulated and sold by the government.(Wentz 1988a)

Other EC Countries

An increase in advertising spending in Italy, Europe's most deregulated TV market, can be attributed to continued developments in commercial TV there and the comeback of the press with the launch of more than seventy magazines in the past two years. Spain and Portugal are also expected to experience tremendous TV advertising growth due to TV privatization.(Downer et al 1988) Spain, Portugal, and Greece were all expected to increase spending in 1988 by more than 25%.(Wentz 1988a)

Tobacco Advertising Regulations In The EC

Tobacco advertising in the EC has been an intensive issue. Recently, there has been a proposal in the EC to restrict the use of people and realistic settings in tobacco advertisements and to ban the use of tobacco-product brand names for non-

tobacco products, such as lighters or fashion collections.(Cote 1989) Britain has been especially active in tobacco advertising rules. Britain already bans cigarette advertising on television, but from 1991, cigar and pipe-tobacco advertising was also banned.(Staff 1990a)

EC laws already passed are much stiffer. A total ban on tobacco advertising is expected to be in effect by 1992. The EC has a proposal to ban all tobacco advertising and sponsorship. If approved, the law would prohibit tobacco marketers from advertising their products in any medium or using any tobacco product logo in sporting or cultural events.(Rosenbaum 1990)

Consensus Difficult Among Member Countries

Final approval of the tobacco advertising ban amongst member countries is difficult. The commission in Brussels realizes that Britain and Germany would never agree to a total ban on all tobacco advertising.(Staff 1990a) These countries as well as Greece have already come out against the bill. Some suspect that Denmark, the Netherlands, and France would also oppose it. Although all EC members have already banned most forms of tobacco advertising on TV, regulations differ greatly on print advertising. The EC legislators fear if a total ban is not imposed, one country might impound foreign magazines and newspapers that do not conform to its regulations.(Rosenbaum 1990)

The Impact Of A Tobacco Advertising Ban

Tobacco advertising spending in the EC is a substantial part of total advertising expenditure; it is approximately one billion dollars annually.(Wentz & Rosenbaum 1990) Advertisers express concern that the tobacco ban could become the model for other marketing restrictions. Alastair Tempest, the Tripartite's Director General, mentioned, "The danger is that the same principle could be applied to advertising in any sector where country regulations differ. In the United Kingdom, for example, certain kinds of financial advertising are prohibited. Would the same kind of rule be applied to financial advertising in foreign magazines?"(Rosenbaum 1990) John Dollisson, Vice President of Corporate Affairs at Philip Morris International holds a similar opinion: "As Europe goes, so goes the world. And it won't stop with cigarettes. Even the fast-food industry is under attack."(Giges 1990)

Thus, a ban on tobacco advertising could threaten many other forms of advertising in the EC. This has intensified the advertising industry's fears that moves towards harmonizing laws will denote tighter regulation on advertisements for alcohol, food, pharmaceuticals, and financial services. Meanwhile the health and consumer advocates fear the opposite, that harmonization will mean the unravelling of national controls.(Staff 1990a)

Advertising Regulations Of Other Industries And Their Products

Alcohol

The European Commission is working on an alcohol directive that could include advertising. Meanwhile, individual EC countries (Spain, Italy, France) are increasing restrictions on alcohol advertising. For instance, France does not allow any TV alcohol commercials.(Staff 1990a) EC regulations on alcohol advertising has been a difficult issue. In Britain, by industry agreement, gin, whisky, and vodka are not advertised on television. But other sorts of drink may be advertised, so long as they do not link consumption to social or sexual success. This is complicated by an EC broadcasting directive which would allow cross-border advertising of all sorts of alcohol. As a result, a German satellite station could, while conforming to EC law, transmit Cognac advertisements into Britain, while Britain's whisky manufacturers would be unable to counter with domestic advertisements promoting the beverage. Similarly, a British satellite station could broadcast beer commercials to France, while French television could not.(Staff 1990a)

This could leave broadcasters, manufacturers, and advertisers, faced with competition from less restricted foreigners, pressing their governments for more liberal treatment.

Food

The United States FTC recently has been cracking down on misleading food advertising. The EC is currently working on similar attempts. A proposed directive suggests that manufacturers should not be allowed to refer to helpful recommendations by health institutions. For example, "The Intestines Inspectorate says fibre is good for you. Frizzo is 79.3% fibre."(Staff 1990a) It would also ban the distinction between natural and artificial ingredients. Thus, these regulations would restrict All-Bran's claim of aiding digestion and Diet 7Up's claim of being saccharin-free.

There are many concerns about this type of directive, especially for TV ads. Regulations need to be specific and leave no room for varying interpretations. For example, when foods are identified as "fresh," marketers need clear direction on what comprises a fresh food.(Cote 1989)

Pharmaceutical and financial services

EC advertising restrictions on over-the-counter drugs and branded pharmaceuticals are likely. A proposed directive at first suggested forcing pharmaceutical companies to include detailed information on dosage and usage in ads, but this provision has been lessened in degree.(Staff 1990a)

Another directive which at first was quite strict entailed restrictions on advertising of financial services. The original draft directive proposed that advertising should be limited to the sort of details a business card carries.(Staff 1990a)

IMPLICATIONS

The above review of existing EC TV restrictions and EC directives and proposed restrictions has highlighted the significant growth in TV advertising expenditures which has occurred. This growth was possible because of the privatization of TV channels, and the development of satellite TV systems. However, the on-going concerns of EC admen relate to the regulatory actions of the EC. The 1992 initiatives required to create a Euromarket have lead to a variety of proposals designed to harmonize EC advertising regulations. In reviewing these proposals it seems appropriate to observe that the existing maze of national regulation may indeed be stunting the growth of Euromarket promotions.

However, because each member country brings varied economic, social, and philosophical backgrounds to the Euromarket—developing uniform regulations will be difficult and time consuming. Although the various industry associations noted should continue their lobbying efforts, there seems limited evidence that the EC commission and/or parliament are unfriendly and desirous of anti-advertising regulations. Instead it seems appropriate to realize that "harmonizing" EC advertising regulations, especially TV ad regulations, will require time to achieve and during that time period marketers will need to continue to be cognizant of all the myriad of existing regulations. Perhaps by the turn of the century a true Euromarket with a single set of regulations will exist.

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EC 1992 INITIATIVES AND ADVERTISING INDUSTRY CHANGES

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Abstract

This paper examines recent changes which have occurred in the EC advertising agency scene as the 1992 EC initiatives begin to have an effect on the advertising industry. Since it is expected that the Euromarket will be drastically different than the U.S. mass market, any changes and trends within the EC advertising industry are important to U.S. marketers who are currently active in Europe or who desire to become active Euromarketers.

Viewpoint

The advertising industry has stimulated trade and economic cooperation among nations. Fifteen countries account for 90% of worldwide advertising expenditures, these same fifteen countries comprise 20% of the worldwide population and 61% of global Gross National Product.(Link 1988) Many of these fifteen countries are members of the EC. If the EC initiatives for 1992 are to benefit Eurocustomers by widening their purchasing choices advertising has a key role to play. John Dollisson, Vice President of Corporate Affairs at Philip Morris International, said, "If there is one lesson to be learned from the great historical drama that has just taken place in Eastern Europe, it's that freedom is indivisible, that an open society can operate only in a free economic environment. Our system is the only system ... that actually produces the goods. Advertising is part and parcel of that noble system."(Giges 1990) This paper will examine recent changes and trends which have occurred in the EC advertising agency scene as the 1992 EC initiatives begin to have an impact; briefly discuss the current Pan-European Ad Agency situation; and examine some Euromarket advertising differences with a view to their implications for marketing planners.

Euromarket - EC 1992 Initiatives

By the end of 1992, the twelve member-nations of the EC expect to remove most remaining internal trade barriers, eliminating restrictions on the movement of goods, services, and people. The EC will standardize tariff systems. These efforts will create a single European market, resulting in business realignments and a free flow of goods and services. This means that any product that meets EC "essential requirements" for health, safety, and environmental protection can be marketed throughout this single marketplace. Pricing structures will change, and concurrently the competitive environment will change. Advertising will be important to the success or failure of many companies within this Euro-marketplace.

The 1992 timetable is actually a set of nearly three hundred separate initiatives designed to remove the physical, technical, and fiscal barriers to EC trade. Replacing restrictions will be a single set of regulations and directives, coordinated by the EC Commission, headquartered in Brussels.

Pan-European Marketing

The notion of organizing a firm's marketing efforts to be Pan-European by focusing on commonalities, is replacing the older country-by-country approach. Successful marketers know that basic consumer wants are universal and recognize the benefits of transcontinental experience; for example, a successful ad theme in one country may suggest effective approaches in another. Technological developments, such as satellite television systems, are crossing national borders, enabling advertisers to put together "cross-border" media deals. Moreover, these changes are prompting EC governments to loosen restrictions on media.

The Competitive Advantages Of Pan-European Ad Agencies

Pan-European agencies have a competitive advantage over unaffiliated local agencies because of their integrated networks, information systems, coordinated planning, consistent disciplines, and sharing of learning on an international scale. These agencies realize that multinational customers demand Pan-European expertise. They have also identified that in the EC, consumer tastes, needs, and purchasing patterns are converging. Thus, consumers are becoming more homogeneous. For example: "Saatchi & Saatchi claimed that worldwide brands would soon become the norm and that such an advertising challenge could only be handled by worldwide agencies."(Jeannet and Hennessey 1988)

Many American companies have been investing aggressively in the EC: Proctor & Gamble, General Foods, Sara Lee, Coca-Cola, Pepsi, Whirlpool, General Electric, AT&T, Citicorp, Shearson Lehman, and McDonald's. Many that already have a major presence in Europe also are planning to expand their operations.(Chandran 1989) Many producers are consolidating spending by brand or product category with a single advertising agency and launching products within the EC by Pan-European introductions. Already, more than one billion dollars in Pan-European business has been awarded to agencies since early 1988.(Wentz 1989a)

Jean-Claude Boulet, Chairman of BDDP advertising agency, revealed that their multinational clients such as Campbell Soup Co. and Nestle are consolidating their accounts with fewer agencies as a result of tighter marketing budgets and a desire to streamline advertising strategies before the market barriers drop in Europe in 1992.(Toy and Landler 1990) Saatchi & Saatchi is another agency set to satisfy its global clients. It is running Pan-European campaigns for Gillette's new Natrel deodorant and for Johnson & Johnsons's Silhouette tampons, the first such campaign by their manufacturer. Saatchi & Saatchi claims to have business worth around three billion dollars in Europe through its various operations.(Staff 1988)

Successful Euromarket Advertising Examples

3M is an example of a company reorganizing to benefit from the emerging Euromarket. Its consumer products, including "Scotch" videotapes, "Post-it" notepads, and "Scotch-brite" scouring pads, are identical across the EC. They are sold to

the same customer, and they compete with the same rival brands. Previously, 3M's national subsidiaries had been responsible for all products within their EC country. This required separate strategies and different advertising agencies for each country market. "It was just getting too expensive," stressed Don Lineman, 3M's Marketing Communications Manager for Europe.(Cote 1988)

Even advertising of more difficult subject matter is possible. For example, Johnson & Johnson's new o.b. with applicator tampon uses the slogan "o.k., o.b." in print and in TV commercials and was initially introduced in eight languages in Austria, Belgium, France, Germany, Italy, and Spain.(Wentz 1989b) Again, the slogan and theme transverse cultural borders.

Euromarket Differences

Europe is really not one market. It is likely to remain heterogeneous in many respects. Non-European based agencies planning to treat Europe as a single market will be disappointed.

Discrepancies In Practices

What are acceptable advertising practices in one country may be inappropriate or illegal in another. Money-off next purchase is permitted in the United Kingdom and Ireland, where promotional law is the most liberal, but in Germany and Luxembourg promotional law is very rigid. And even though free mail-ins are allowed in Spain, John Hooper, Group Chairman of Clarke Hooper Consultancies, mentioned, "You wouldn't think of doing it because it would never get there." (Wentz 1989b)

Advertising practices which still vary greatly from country to country within the EC, create problems for agencies. A survey of leading brand advertisers in fifteen countries around the world has identified some of these comparative advertising practices. The EC countries involved were Great Britain, Denmark, and Germany. In regard to advertising budget setting methods, there are several differences by country. Danish and British advertisers used executive judgment more frequently than the sample average. Advertisers in Germany and the United Kingdom used the all-you-can-afford and match-the-competition methods more often than the average; most non-EC countries preferred the objective-and-task method. They also vary in the timing of expenditures. British advertisers used the timing-for-sales-promotion strategy less frequently, whereas Danish advertisers and many of the other non-EC countries used this strategy more often.(Synodinos et al 1989)

Use of media is also diverse. The British spent more money in television advertising than other EC countries whereas Denmark spent more than the average for newspapers and magazines. The Swedish and Danish are similar; they used product identification more frequently than those in other countries as a creative approach. EC countries are dissimilar though, in the fact that the benefit awareness creative approach was used most frequently in Denmark; however, it was never used in Sweden. Testimonials and slice-of-life advertisements were especially popular in Denmark. Humorous approaches were used more often in Great Britain.(Synodinos et al 1989) In summary, a degree of commonality but many differences were revealed in the advertising practices among the advertisers of this sample.

Unsuccessful Euromarket Advertising

Although there may be certain common Euromarket attitudes toward products, ad agencies must accept that there are still very divergent cultures, climates, religions, political structures, eating habits, family structures, and wealth distributions. Consequently, advertising styles and their effectiveness are as diverse as advertising practices. What is common in some countries may be less common or even taboo in others. Neil Kennedy, Executive Chairman of BSB Europe, London, said, "All French ads seem to end up in bed. All Italian ads always seem to revolve around a meal. The English ads all use humor."(Teinowitz 1990)

The following example illustrates this complication. When Compaq Computer Company planned its ads in Europe around its rapid growth, the campaign was executed several ways. The print advertisement in the United Kingdom via the agency's London office reprinted a news account headlined "Compaq beats Apple record for fastest entry to Fortune 500." The humor showed up at the bottom of the announcement with the line, "Sorry, old fruit." But in Germany, the fastest growing computer concept was rejected as a theme. "Our German guys looked at it and said it was out of the question," Kirk Walden, Ogilvy & Mather Senior Vice President and Client Service Director in Houston, remarked. "The idea was seen as arrogant and perhaps an indication that the company grew so fast because it was too high-priced."(Lawrence 1989)

Even though different people from different cultures may purchase the same product, their priorities of product attributes may be very disparate. Thus, there will still be some products that most likely will always be perceived differently by consumers in each country, and a single campaign can be disastrous.

The Importance Of Regional Advertising

Since EC countries have distinctive cultural, political, and competitive industry situations, tailor-made regional advertising applications are necessary. Relevant local differences do matter and opportunities vary by market. Every sale remains a local sale. Except for generic-like products such as Pepsi-Cola, Euro-marketing will not be easy. Local competitive conditions, problems, and cultural biases must be recognized and exploited in order for a Euromarket ad agency to be successful. They must act locally while thinking globally.

Thinking globally, while acting locally means that commonalities are more important than differences, and that differences, when they exist, are acknowledged and acted upon. "Global brands are few and far between - Coke, Pepsi, Martini, and Levi's," commented Neil Kennedy. "For most other international brands, it makes enormous sense to have a global strategy, but local creative executions are vital."(Teinowitz 1990) Instead of a single Euromarket campaign translated by country, media and creative strategies are tailored to the particular country. "We learn constantly that there are major differences between countries that make up Europe and you're bound to be more successful if you have creative authority at the country level," said Martin Hingley, Research Director at International Data Corp., Europa, a subsidiary of market researcher IDC.(Lawrence 1989) Kirk

Walden has similar opinions: "There's lots of talk about global advertising. Ogilvy's point of view is that we believe in ideas crossing borders, not necessarily execution. We see that advertising has to be different in tone in the U.K., but that doesn't usually mean that the idea is different."(Lawrence 1989)

Making the same brand highly relevant to a lot of different people, speaking different languages and dialects, is the main challenge that all Euromarket advertisers face. "There will be greater use of European brands. Yet, local markets and their special consumer needs can't be ignored. It will be a question of seeking the right balance" declared Michael Angus, Chairman of Unilever, one of Europe's largest advertisers.(Beatson 1990)

EC 1992 Advertising Industry Changes

As different EC industries fight for larger shares of the Euromarket, their ad agencies are being drawn into the battle. Agencies are utilizing restructuring strategies to keep pace with their domestic clients' international expansion. Even those agencies previously opposed to internationalization, such as Burkitt Weinreich Bryant, are making moves to serve clients in other markets.(Murrow & Wentz 1989)

Network System Strategies

Establishing an effective network system is one strategy available to an agency interested in becoming Pan-European. In theory, a Pan-European network of agencies can pool its savvy on the client's behalf and execute Pan-European marketing or media plans.(Papazian 1988) Many agencies feel pressure from expansion-minded clients in need of advertising agencies able to handle Pan-European accounts. When a client is very happy on a local basis, that client tends to want the same success across several markets. Firms with strong international connections are more attractive to multinational clients serving various markets.

The Expansion Strategy

Without a European network an agency can be vulnerable. Thus, firms are forming multinational alliances or merging. For example, Collett Dickenson Pearce, the United Kingdom's number thirteen agency with 1988 billing of $216 million, entered major European markets, buying a minority interest in agencies such as Alice in France and Canard Advertising in Italy. Moreover, Yellowhammer Advertising, the United Kingdom's number twenty-six agency with billings of $116 million, started its own Paris agency called Yellowhammer Delafosse. A similar start-up in Spain is also likely for them.(Murrow & Wentz 1989)

Expansion in Europe can be a lengthy process. Even European agencies with strong roots have expanded slowly and with care. Roger Swann, Executive Vice President of KLP International in London, stated, "It took KLP five years to build a network of agencies in France, Holland, Spain, Ireland, and Scandinavia. It's a major effort for companies like Coke to send people around the world, let alone a promotion agency."(Fahey & Bowes 1990) Thus, some ad agencies with Euromarket expectations are moving quickly to find affiliations.

The Autonomous Strategy

An alternative strategy to expanding in order to solidify a network is for an agency to detach and become autonomous; this is exemplified by Eurocom S.A., the largest French advertising, promotion and public relations group and which is a 43% controlled affiliate of the French media and publishing giant Havas S.A. Eurocom has recently broken up a joint venture with Young & Rubicam of the United States and Japan's Dentsu Inc. in order to take total control and ownership of HDM, a lucrative international agency. This is just the latest aggressive move for Eurocom in an international expansion program attempting to rival British giants Saatchi & Saatchi Co. and WP Group PLC. Eurocom desires to be an international power on its own instead of an allied entity.(Browning & Lublin 1990)

The Control Strategy

Other agencies have established effective networks by establishing control. McCann-Erickson boasts that it has the best network in Europe because most of its agencies abroad are wholly owned subsidiaries. Other multinational agencies have usually taken less than 100% of local operation, and thus may not possess the control necessary to harmonize cross-border advertising. McCann-Erickson proclaims that it has unrivalled and essential experience in "building brands across European borders". Its claim is backed by clients like Esso (which has been with the agency since 1911), Coca-Cola (advertised in a uniform style in fifty countries), and Martini.(Staff 1988)

Some agencies have restructured their operation. To remain competitive in a unified Europe, Grey Advertising, for example, has created a European board of executives to manage a client's advertising across Europe. The J. Walter Thompson advertising agency has also set up a special Pan-European management unit. The group, based at Thompson's London office, formulates media, marketing, and research strategies for clients, to give them extra clout throughout Europe.(Foltz 1990a)

U.S. Ad Agencies Increasing Interest In The EC

The Euromarket of 1992 is increasing of interest to multinational American-based ad agencies in Europe, as an important source of revenues. Traditionally, EC ad spending growth lagged behind the United States, and agencies maintained many unprofitable foreign offices to serve clients - not to make money. However, revenues from Ec operations now often exceed those from the United States. For example, in 1974 Young & Rubicam's business in Europe represented only about 10% of the agency's total billing. By 1989, that figure had jumped to about 40%.(Foltz 1990a) In 1987, McCann's billings (the amount its clients spent on advertising) were 33% higher in Europe than in America.(Staff 1988) And, Grey Advertising's European operation is the fastest growing part of the agency.(Foltz 1990a)

Difficulties For U.S. Agencies In The EC

In order for U.S. or other non-European based agencies to be effective and prosperous in the EC, they must recognize generally consistent ad styles that span most of Europe and are dissimilar from their own, exist. For example, European ads are thought to employ more original techniques than U.S.

ads. Even more important, there is often a distinct difference in tone. Advertisements in Europe seem to address consumers as intelligent people with minds of their own. There is more entertainment and less hard-selling than in U.S. campaigns.(Jones 1990)

In crowded, highly competitive product categories, advertising must be hard-edged and brand-specific. It tends to be factual rather than emotional. This is effective in the U.S. where there are numerous brands of products. However, in Europe, there have been more wide-selling brands that did not have too many competitors. Thus, a different kind of advertising has been required. Advertising that relies on motivating arguments is entertaining, amusing, intelligent, stylish, and relaxed. This advertising can be soft, generic, and emotional and is regarded as causing more potent impressions in Europe.(Jones 1990) Thus, agencies not familiar with European styles may have ineffective campaigns.

French Ad Agencies

French agencies are growing, ad expenditures jumped 12% in 1989. Corporate advertising, as well as financial advertising, are growing ....(Hill 1987) French agencies seem to have a growing concern that the United States, Britain, and Japan are carving up the global advertising market without them. Moreover, French agencies have benefitted hugely from the government's deregulation of French television, which increased the number of channels. Thus, aided by robust profits, the French are very active in the EC advertising scene. In April 1990, for example, Paris-based Boulet Dru Dupuy Petit bought 40% of Wells, Rich, Greene Inc., a highly regarded agency whose clients include IBM and Philip Morris Cos. Another expanding agency, Roux, Seguela, Cayzac & Goudard has bought two mid-sized American agencies outright. Eurocom is also looking at three mid-sized New York agencies and is even considering acquisition of some of Saatchi & Saatchi's American divisions.(Toy & Landler 1990)

Changes In EC Ad Styles

As Euromarket ad campaigns become more prevalent, the style of advertising may change significantly. When ad messages transcend national frontiers, it will often transcend national languages. There are nine different national languages within the EC, each an official Community language: Danish, Dutch, English, French, German, Greek, Italian, Portuguese, and Spanish. To communicate to people speaking different languages, ads will put more emphasis on visual and musical content and less emphasis on verbal. Nick Beck, Managing Director of Outdoor Advertising International (OAI) predicted that "major international advertisers are going to move increasingly into trans-frontier outdoor advertising in Europe because outdoor is the only medium that presents no translation problems when the creative treatment is right."(Fahey 1989)

As advertisers develop expertise in non-verbal communication, print media will also reconcentrate on this; there will be more emphasis laid on graphics rather than on copy. Broadcasting via satellite will perpetuate these forms of communication. Thus, the use of visual symbols and pictorial portrayals will transfer the idea more clearly.

EC Ad Industry Growth

1992 will bring economies of scale that will produce an increase in the EC's gross domestic product of between 4.5% and 7%, or about two hundred billion ECU at 1988 price levels. There will be a drop in consumer prices of up to 6%.(Beatson 1990) The EC Commission estimates that new jobs will be created for two million to five million people. As the total market expands, services will be the fastest growing sector.

Causative Factors

Ad spending in the EC is escalating. This expenditure, expressed as a percentage of the EC GNP, is expected to continue to outpace the relatively mature American market at double the spending rates of the United States market as technological and regulatory changes expand media opportunities. TV will definitely have a strong impact on advertising growth in the EC. This is especially prevalent in Italy and France, due to the development of private TV and increased TV advertising time in recent years. In 1990, McCann-Erickson Worldwide predicted Italian advertising spending would increase 9.2% combined with a 6.1% inflation rate. For France, they predicted 11% growth and a 3.3% inflation rate.(Hill 1990) Also partly due to the deregulation of TV throughout Europe, major media advertising spending in Europe was predicted to increase by 10.8% to $47 billion in 1988, by 9.8% in 1989 and by 9.3% in 1990.(Wentz 1988)

Industry sources indicate the opening of East Germany may also have considerable influence on West German advertising spending for the next few years. Others note, however, that advertising spending by West German marketers in East Germany is cannibalizing budgets originally targeting West Germany.

Implications

Once regulations and restrictions on marketing communications are set, they will be followed initially by the twelve EC states, and possibly as well by those countries in Eastern Europe that will be looking to bring their laws into line with those of the EC.(Beatson 1990) The 1992 initiatives will undoubtedly modify Euromarket business patterns and multinational companies activities. Also, the EC's regulations may prompt restructuring of American advertising rules. Mike Bowman, the Director of Multinational Clients for Lintas International, deduced, "As the European market becomes more powerful, it is bound to influence the American market in terms of regulation."(Foltz 1990b)

One major reason the concept of 1992's Europe has attracted so much attention is the feeling that, however it develops, Europe's mass market will be drastically different than the mass market across the Atlantic in the United States. The market will be a multilingual, multicultural phenomenon of the next century. Some conclude that it will be more affluent and better educated that the American mass market. Walter Serwatka, President of McGraw-Hill Information Services, emphasizes that it is still too early to tell the impact of a united Europe in 1992, but "The world is getting smaller and smaller, and the need for information is growing."(Schleier 1989) The Euromarket will provide a vital and unique challenge for the power of advertising and the above noted

EC advertising industry changes should enable agencies to meet that challenge.

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EDUCATING TEACHERS TO INTEGRATE COMPUTERS INTO THE K-12 CLASSROOM: A MARKETING EDUCATION PERSPECTIVE

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Abstract

Undergraduate marketing students must be prepared to use computers in a variety of ways within their curriculum. Marketing students should therefore be exposed to computer technology during their elementary and secondary education. This study examines the extent to which Colleges of Education are preparing teachers to integrate computers into the K-12 curriculum. This will provide an indication about the computer skill level of future marketing majors.

Introduction

Recognition that computer technology plays an important role in reforming the education process and preparing marketing students for the global economy is widespread (Kelly 1990; Chonko and Caballero 1991). However, major adjustments to traditional teaching methods are required to use this technology effectively. Students are falling behind in computer skills due to the lack of access to equipment, unavailability of educational software, and lack of K-12 teacher training. Teachers are generally ill-prepared to make the commitment to integrate computer technology into their curriculum. Many do make an initial attempt, but ongoing assistance and encouragement are seldom given.

If marketing students became computer literate prior to undergraduate study, they could more fully participate in computerized marketing simulations and information analysis (Miller 1985; Dyer 1987). This study examines what is being done in College of Education in the United States to instruct future and present K-12 teachers about integrating computer based learning into their curriculums. Educational reforms are needed in this area to better prepare future marketing students in computer technology (Sherwood and Nordstrom 1986).

Literature Review

Undergraduate Marketing Curriculums

There is a growing demand for undergraduate marketing curriculums to more accurately reflect the use of microcomputers in business organizations (Goslar 1987). Rogers, Williams, and McLeod (1991) found that microcomputers were highly important to marketing managers in Fortune 500 firms and that marketing students should be exposed to specific software packages that were necessary to pursue a career in marketing. The use of computers in many standard courses such as Marketing Research and Principles of Marketing is growing (Turnquist, Bialaszewski, and Franklin 1991; Kurtz and Boone 1987; Barnes and Smith 1988). To function effectively within such a computer integrated undergraduate marketing curriculum, basic computer literacy must be acquired at the elementary and secondary school level.

Computer Technology in the K-12 Classroom

Interest in the application of computer technology in public schools has increased over the last five years (Kelly 1990; Niess 1990; Schumaker and Hossain 1990). School expenditures for computers, software, and video equipment total over $1.3 billion annually. However, several factors limit the integration of computer based learning in K-12 classrooms. At the K-12 level only one percent of the U.S. school district budgets is spent on computers. Although 95% of public schools have personal computers, the ratio of students to computers is 25 to 1. In addition, elementary and secondary education in America serves nearly 50 million students located in more than 15,000 school districts. A change in computer based education nationally could take a decade to be widely adopted in the separate school districts. Finally, over 50% of K-12 teachers have little or no familiarity with personal computers (Szabo 1990). These factors will have a negative impact on future marketing students. Marketing students will have to spend valuable time learning basic computer skills rather than marketing principles. These are skills which should have been acquired at the K-12 level.

Colleges of Education Training Programs

Comprehensive programs designed to educate teachers to integrate computers into their K-12 curriculum remain concentrated in the major research universities. Only 30 percent of Colleges of Education require a three credit hour, basic computer application course for elementary and secondary education majors. A majority of institutions recently surveyed by the Preservice Teacher Training Task Force at the University of Michigan reported that they had no goals related to computer use in their teacher education programs (Novak and Berger 1991). Schumaker and Hossain (1990) reported that of 350 universities, most have not integrated microcomputer software into their curriculum. In addition to resource availability and training, teacher attitudes toward computer based education must be studied (Niess 1990; Gressard and Loyd 1985). The degree of computer integration in the K-12 classroom will clearly change the role of teachers. It is important that this integration is not perceived as a means of eliminating teachers or increasing student-teacher ratios (Kelly 1990).

Purpose of the Study

This study examines what is being done in Colleges of Education in the United States to instruct K-12 teachers to integrate computer technology into their curriculum. This will indicate the extent to which future marketing students will be prepared to use computers when they enroll in marketing courses. The study will also provide the basis for marketing strategies designed to increase computer use in K-12 classrooms.

Methodology

Sample Design

A telephone survey of 40 academicians at 40 major U.S. universities was conducted. Members listed in the 1989-1990 EDUCOM Directory of Members and whose universities were accredited by the National Council for Accreditation of Teacher Education (NCATE) were cross-referenced and used as the sampling frame.

EDUCOM is a nonprofit organization consisting of colleges, universities, and other institutions for the purpose of expediting the introduction, use, and management of computer technology in higher education. Over 590 higher education institutions and more than 130 corporations are members of EDUCOM.

NCATE has been authorized by the Council on Postsecondary Accreditation to accredit professional education units in U.S. colleges and universities that prepare professional educators to staff K-12 schools. It is a nonprofit consortium of 515 colleges and universities. NCATE provides leadership for addressing critical issues about the role of computer technology in Colleges of Education. Every major U.S. research university is a member of the National Council for Accreditation of Teacher Education. Only major NCATE universities with Baccalaureate, Master's or Doctoral degree programs in Elementary Teaching, Secondary Teaching, K-12 Teaching, Educational Communication and Information Technology, and Supervision/Curriculum Development programs were sampled. Universities that offer NCATE accredited programs in these areas and whose faculty are members of EDUCOM are the most likely respondents to have computer course requirements and training programs for teachers to integrate computer technology into K-12 curriculums.

The largest group of respondents (22) consisted of professors, associate professors, and assistant professors in areas such as computer education, elementary and secondary education, and educational media and technology. Four department chairpersons were interviewed. The remaining respondents were directors and coordinators of educational media and computer centers, educational technology programs, and learning resource centers.

The Questionnaire

The degree to which K-12 education majors were being taught to integrate computers into their curriculum was assessed using a 20 item questionnaire. The questionnaire examined computer classes offered in Colleges of Education. It studied the role industry plays in the education of K-12 teachers. The questionnaire also addressed respondent attitudes toward computer education for K-12 teachers. The questionnaire items are displayed in **Tables 1** to **4**.

Results

This section summarizes the total respones of the participants from the 40 universities sampled. The responses were summated to describe the overall patterns in the data. The number of responses in each table varies because certain items were relevant to some participants but not others.

The respondents were asked questions relating to the status of computer integrated curriculums for K-12 education majors at their university. The results are shown in **Table 1**. Respondents

TABLE 1
STATUS OF COMPUTER INTEGRATED
CURRICULUMS FOR K-12 EDUCATION MAJORS

Questionnaire Items	Item Responses Yes	No
1. University currently has a computer integrated curriculum for K-12 education majors	32	8
2. University is likely to require a computer integrated curriculum for K-12 education majors in the next five years.	5	3
3. Major reason university has not implemented a computer integrated curriculum for K-12 education majors is:		
1. Computer integrated curriculum is not required by the state for teacher certification	3	0
2. Computer funding is not available.	2	0
3. Computer lab is prohibited by space restrictions.	1	0
4. Lack of faculty expertise in the area of computers.	1	0
5. Computer course is not required for education majors.	1	0
4. A computer laboratory is provided for K-12 education majors	38	1
5. Companies provide support for K- 12 computer related curriculum.	18	14
6. University offers continuing education courses in computer technology for existing K-12 teachers.	38	1
7. State requires K-12 teachers to have computer training.	17	22

at 32 universities report having a computer integrated curriculum. Five other universities are likely to require computer integrated

curriculums within the next five years.

There were several prohibitive factors found for the eight universities without computer integrated curriculums. Two respondents cite funding constraints as the major reason their university has not implemented a computer integrated curriculum for K-12 education majors. Three respondents report that their university does not have a K-12 computer integrated curriculum because such a program is not required by the state for teacher certification. Computer lab space restrictions, lack of faculty expertise in the area of computers, and lack of a computer course requirement for eduction majors are each mentioned once as a prohibiting factor.

Computer laboratories are available for K-12 education majors at all except two of the universities surveyed. Industry support for K-12 computer related curriculums is found at 18 universities, while 14 universities claim they receive no industry support. The state government requires computer training at 17 of the universities sampled, but 22 other universities have no such requirement. Finally, 38 universities offer continuing education courses in computer technology for existing K-12 teachers.

Teacher attitudes regarding computer integrated K-12 curriculums are presented in **Table 2.**

TABLE 2
TEACHER ATTITUDES REGARDING COMPUTER INTEGRATED K-12 CURRICULUMS

Questionnaire Items	Item Responses Agree	Disagree
1. Computer integrated education improves K-12 student ability to learn.	31	9
2.Computer skills are necessary for K-12 teachers.	38	2
3. K-12 teachers are intimidated by computer technology.	25	15
4. Existing K-12 teachers are willing to pay for computer training with their own money.	12	28
5. There are currently more existing K-12teachers seeking computer training than in the last two years.	29	10
6. Computer literate K-12 teachers earn higher salaries than their computer illiterate counterparts.	4	34

Thirty-one of the respondents agree that computer integrated education improves K-12 student ability to learn and 38 think that computer skills are necessary for K-12. Twenty-five of the 40 respondents agree that existing K-12 teachers are intimidated by computer technology. Twenty-nine respondents think that more existing K-12 teachers are seeking computer training, but only 12 participants agree that teachers are willing to pay for this computer training. Thirty-four of the participants disagree that computer literate K-12 teachers earn higher salaries.

Industry involvement in educating K-12 teachers to integrate computers into their curriculum is shown in **Table 3.** Thirty-six participants state

TABLE 3
INDUSTRY INVOLVEMENT IN EDUCATING K-12 TEACHERS TO INTEGRATE COMPUTER INTO THEIR CURRICULUMS

Questionnaire Items	Item Responses Agree	Disagree
1. Industry sponsored grants are beneficial in providing computer equipment to Colleges of Education.	36	4
2. Industry sponsored seminars are beneficial in providing computer education to existing K-12 teachers.	21	19
3. The computer industry should sponsor training seminars for K-12 teachers.	25	15

that industry sponsored grants are beneficial in providing computer equipment to Colleges of Education. Twenty-one respondents state that industry sponsored seminars are beneficial in providing computer education to existing K-12 teachers. Twenty-five respondents state that industry should sponsor training seminars for K-12 teachers.

The participants were asked several items about university opportunities to further integrate computers into courses for K-12 education majors. The results integrate computers into courses for K-12 education majors. The results are presented in **Table 4.** The majority of respondents agree

TABLE 4
UNIVERSITY OPPORTUNITIES TO ADVANCE COMPUTER INTEGRATED CURRICULUMS FOR K-12 EDUCATION MAJORS

Questionnaire Items	Item Responses Agree	Disagree
1. There is a high level of interest among K-12 education majors at your university concerning computer integrated curriculums.	29	11
2. There is adequate funding for computer hardware in your College of Education.	10	30
3. Your College of Education could make a profit by offering special computer education seminars for existing K-12 teachers.	27	13
4. Your university would be willing to implement a computer integrated curriculum for K-12 education majors developed at another university.	27	12

that K-12 education majors at their university have a high level of interest in computer integrated curriculums. Thirty respondents state that there is inadequate funding for computer hardware in their College of Education. Twenty-seven of the participants think a profit could be made by offering special computer education seminars for existing K-12 teachers. Twenty-seven of the participants agree that their university would be willing to implement a

computer integrated curriculum for K-12 education majors developed at another university.

Conclusions

This study was conducted to determine the extent to which future and present K-12 teachers were being taught to integrate computers into their public school curriculum. This information provides some indication of how well potential marketing majors will be prepared to use computers. Industry's role in providing support for Departments of Education was also examined. Several conclusions were drawn from the results of this study.

An increasing number of Colleges of Education will require a computer integrated curriculum for K-12 education majors in the next five years. A major reason that some universities have not implemented such a curriculum is that the state does not require computer training for K-12 teacher certification. Action at the state level is required to increase K-12 teacher education in computer technology and to bring it into the K-12 classroom.

Universities rely to some extent on private industry to provide support for their K-12 computer related curriculums. Many Colleges of Education do not have adequate funding for computer hardware. There is widespread potential for private industry to further the integration of computer technology in Colleges of Education and K-12 classrooms through grants, seminars, and training programs.

Many educators agree that computer skills are necessary for K-12 teachers. Both K-12 education majors and existing K-12 teachers are highly intrested in computer integrated curriculums. Although teacher attitudes are largely favorable regarding K-12 computer integrated curriuclums, a significant number of teachers are still intimidated by computer technology. Many also indicate that additional compensation is not provided for computer literate K-12 teachers.

Marketing Strategies

There is a substantial interest among existing and future K-12 educators to use computer technology in the classroom. However, many of these teachers are not adequately trained or equipped to use computers. The following marketing strategies are offered as solutions to increase computer use in K-12 educational settings. These strategies could lead to better educated marketing students who are fully prepared to use the computer when they enter a university.

1. The American Marketing Association (AMA) could lobby national and regional College of Education accrediting associations to require courses in computer training for K-12 education majors.
2. The AMA could lobby state boards of education to require computer training for K-12 education majors before granting a teaching certificate and require existing K-12 teachers to attend courses on computer integrated education to maintain their teaching certification.
3. Continuing education courses culd be offered at universities to assist existing K-12 teachers in integrating computers into their teaching methodology.
4. Leading computer corporations in the education market could sell discounted hardware and networking equipment to universities which are willing to require computer training for their K-12 education majors. This could lead to the development of additional markets for these corporations when the students enter the labor force.
5. Computer consultants from private industry could conduct in-service training seminars and workshops on computer integrated learning for existing and future K-12 teachers. This could eventually provide additional demand for their services.
6. K-12 school administrators should hire consultants to assist in the planning and installation of computer laboratories and networks in their school.

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THE EFFECTS OF CUES AND INFORMATION ON STUDENT PERFORMANCE AND RETENTION

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Abstract

The study investigated the differential effect of positive reinforcement (cues) on retention or memory for factual versus applied information. Subjects were administered a multiple choice test that required processing of both kinds of information. The performance on the test (Time 1) was compared with performance on the same test administered after seven weeks (Time 2). The results indicate that performance was significantly higher for Time 1 and on questions for which positive reinforcement (cues) were provided. There was no significant difference in the performance for factual versus applied information. The subjects did significantly better on applied information when cues were provided, but did significantly better on factual information when no cues were provided.

Introduction

Instructors routinely provide cues about the importance of certain subject matter for testing. The reasons for providing cues or hints may vary (Hunt 1987; Perry and Penner 1990). However, a goal of instructors is to provide quality teaching that leads to higher student learning.

The use of cues seems to differentiate between classrooms with quality teaching and classrooms lacking quality teaching (Bloom 1976). In fact, a few studies have found a positive relationship between provision of such cues and student performance (Johnson 1987; Lysakowski and Walberg 1981). An explanation is provided by Doyle (1977). Doyle points to the abundance of information resources available in the classroom and the problem this poses for the student as to what information is important. The problem is acerbated by the unreliability of the communication that takes place during a normal lecture. If students are to succeed, they must have or acquire the competence to cope with information overload (Doyle 1977). Cues lead to higher performance by reducing the information overload.

Purpose

A teaching strategy using cues becomes more important when we view testing as a process for enhanced learning rather than a mere evaluation or grading tool. This study extends earlier research on cues and performance by investigating the differential impact of cues (versus no cues) on factual versus applied information as well as on long term retention. Research on learning suggests that different types of knowledge acquisition components may be involved in acquiring declarative (factual) and procedural (applied) knowledge (information) (McKeachie, et al. 1990; Pazzani 1991).

The Study

Experimental Subjects

Thirty-five senior level business students in a capstone Marketing Management course at a southwestern state university participated in the study. However, one student did not take both tests and was excluded from the analysis. Of the subjects included in the analysis, 16 were females and 18 were males. Their GPAs ranged from 2.08 to 3.74 with a mean of 2.79 and a standard deviation of 0.45.

Experimental Design

The experiment followed a 2 (cue versus no cue) X 2 (factual versus applied information) X 2 (Time 1 versus Time 2) repeated measures within subjects factorial design. The manipulated variables were thus:

1. Positive reinforcement in the form of cues or lack of cues
2. Type of information, factual versus applied
3. Time

The dependent variable, learning, was measured as the number of correct responses on 64 multiple choice questions.

Of the 64 questions, cues were provided for 32 of which about half required factual while the other half required applied information processing. Cues were provided about a week before the first test (Time 1) during a review of the test material. The emphasized subject matter included both factual and applied information. The application of important concepts was illustrated through examples that were different from those on the test. Of the 32 questions for which no cues were provided again about half required factual and half required applied information processing.

Factual information questions were questions for which the subjects had to more or less directly reproduce definitions of various marketing concepts and/or explanations. An example is, "Market segmentation may be base on ..." Applied information questions were questions that illustrated certain concepts and required subjects to extrapolate based on their understanding of the concept, such as "Which of the following is an example of volume segmentation?"

To assess long term retention, subjects were administered the same test a second time (Time 2) after about a seven week time interval. During this time interval lectures covered additional material. The tests were not supposed to be cumulative and the subjects were unaware that they may be tested again on the material covered by the first test. Therefore, it is unlikely that the subjects studied the material on the test during the seven week time period. However, at the second test administration the students were told that they may have seen these questions earlier and they could add up to 25 points to their overall raw score based on their performance (Time 2). This was done to provide students with an incentive to take the test seriously.

Results and Discussion

The data were analyzed using a 2 X 2 X 2 within-subjects factorial MANOVA. It may be noted that the effect of Gender and GPA was also tested with Gender as an additional between-subjects factor and GPA as a covariate, but were found to be not significant. Table 1 presents the MANOVA results. Two of the three factors, time and cues are significant ($p < 0.0001$) suggesting that the students' performance is significantly different over the seven week

interval. Also the students' performance significantly differs for the questions for which cues were provided versus the questions for which no cues were provided. The students' performance does not differ by factual versus applied information type. Earlier studies by Sage (1979) and Shrope and Braswell (1986) support this information type finding in that they found no difference between factual learning and problem solving/conceptual learning on their criterion measures.

TABLE 1
RESULTS OF MANOVA

Effect	Wilk's Lambda	Exact F	Prob.
Time (T)	0.442554	41.57	0.0001
Cues (C)	0.319679	70.23	0.0001
Info Type (IT)	0.921473	2.81	0.1030
T by C	0.900000	3.67	0.0642
T by IT	0.995983	0.13	0.7176
C by IT	0.492411	34.02	0.0001
T by C by IT	0.999961	0.00	0.9714

The interaction of the cues variable by information type is also significant ($p < .0001$). Another interaction, time by cues, approaches significance ($p = 0.06$). The presence of this significant interaction implies that the variables do not act independently of each other, but rather act in concert (Kerlinger 1964).

Table 2 presents the mean response for the different factors. The data show that the students performed significantly better at Time 1. As expected there is a significant loss of retention over the seven week period. The significantly higher student performance for the subject matter for which cues were provided is consistent with prior research.

TABLE 2
MEAN RESPONSE

	CUES		NO CUES	
	FACTUAL	APPLIED	FACTUAL	APPLIED
Time 1	9.94 (1.91)	11.09 (2.17)	8.85 (2.03)	7.03 (2.30)
Time 2	8.09 (2.17)	9.09 (1.78)	7.74 (2.53)	5.79 (2.07)

Note: Standard Deviation is presented within parentheses.

Of more interest are the interactions. The provision of cues leads to significantly higher learning for applied information. It is likely that the cues for applied information affected the encoding, storage, and retrieval differently than for factual information, in that there was better retrieval for the short term. However, the lack of a significant interaction for time by information type and time by cues by information type suggests the depth of processing (which affects long term retention) for applied information (with or without cues) was probably no different than for factual information.

The results also showed a time by cues interaction. The subjects did better for both Time 1 and Time 2 when cues were provided. This suggests that the provision of cues probably also affects depth of processing leading to higher retention over the seven week period. Although there appears to be a greater loss of retention (drop in performance) between Time 1 and Time 1 for cues than for no cues, the evidence is weak ($p > 0.05$).

Conclusion

This study investigated the effect of positive reinforcement in the form of cues on student performance and retention over a seven week interval for both factual and applied information. The results indicate that cues lead to both higher performance and retention. Cues also seem to have a greater beneficial short term impact on applied as compared to factual information.

Students remember factual information through a different encoding, storage and retrieval process than through an applied information process. Instructors who give primarily applied examination or combined factual/applied examinations can enhance learning and test performance by providing more cues and rehearsals of applications prior to examinations. The business world cries out for an educational system that emphasizes the development of analytical abilities and problem-solving skills. Learning will become more meaningful when instruction is planned to encourage application of knowledge.

Content coverage with cues may take up more classroom time, but then instructors must decide whether they were hired to cover as much material as possible in the time given or to provide a climate for learning. After all, the teacher is organizer of the learning.

To further the research it must be kept in mind that this study, which uses a limited sample size, focused on retention after seven weeks. Perhaps a more comprehensive longitudinal study with a larger sample size would be appropriate. Moreover, studies across disciplines, such as accounting and finance which are more left brain oriented, would help generalize results. Comparing these results with the case method of teaching may also be in order.

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TARGETING MINORITY GROUPS: ASSESSING STUDENTS' NEEDS IN SELECTING A UNIVERSITY

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Abstract

As competition among universities intensifies, there is a need for better understanding the student market. In order to survive, administrators need to understand how various student segments differ in their decision-making behavior. The focus of this paper is to identify factors influencing the selection of a university within various demographic groups, with a special emphasis on students in colleges of business administration.

Introduction

What can educators and administrators do to produce well-educated, well-trained, highly motivated graduates, so that these students can meet the needs and expectations of today's managers? Not surprisingly, one of the answers is to assess students' needs. As competition among universities intensifies, a need for thorough understanding of the student market becomes a vital step toward developing a sound marketing program. A well-known marketing educator and scholar writes "the days when the educational product was unanimously praised and regarded by everyone as needed and desirable are gone. Today, many indicators are available which show that the present educational system is undergoing a major crisis. Financial difficulties, lack of innovativeness, and student passivity are among the most visible. Marketing concepts can offer useful insights for responding constructively to major educational programs" (Kotler 1974).

Clearly then, as the university becomes more knowledgeable about its students' needs and wants, it can more effectively serve the student market. The purpose of this paper is to assess students' needs and wants in this changing business environment.

Study Background

Demographic data indicate that the number of 18-year-olds is shrinking. The expected result was lower college enrollments. But, the potential shortage has been offset by: (1) increased enrollment of older students, and (2) increased interest in attending college among high-school graduates in general. In fact, enrollment increases have occurred at 54 percent of institutions of higher education.

However, this increase has not been consistent. Many institutions have experienced net decreases during the 1980's. In fact, 24 percent of two-year colleges and 17 percent of four-year schools reported losses of 10 percent of more. Among the independent institutions, 28 percent experienced similar losses. Thus, we see that the enrollment profile is not the same from one institution to another (Greene 1988).

In addition, only one in four schools has improved its enrollment of minority groups, with only small increases of 2 to 10 percent (Magner 1989). So, it is obvious that there is also a great deal of variation in minority enrollments among universities. Since the proportion of all college students who are members of minority groups has climbed to approximately 18 percent, this segment of the population represents an important market for universities. Further evidence of enrollment gains by racial and ethnic group from 1986 - 1988 is shown as follows (Evangelauf 1990): White 3.6%, Black 4.4%, Hispanic 10.0%, Asian 10.9%

Changes in the composition of the U.S. work force are also contributing to an increasing need for better learning and training. It is pointed out that immigrants accounted for 22 percent of the growth in the U.S. labor force between 1980 and 1987. This percentage is expected to increase during the 1990's (Stone 1991).

The business school experience has been somewhat unique. Previous studies have found that undergraduate enrollments in schools of business will do better than in universities as a whole. Part of this is due to a shift in females from schools of education to schools of business. However, we are starting to see a peak in this special segment. Only 27 percent of the class of 1990 were women as compared to 31 percent for the class graduating in 1988 with business degrees (Baum 1988). Why is this happening? Many women are opening their own businesses and many are choosing to go to law school. Others are focusing on family obligations. Thus, if business schools want to attract this segment of the student population, they will need to make appropriate adjustments.

Another reason that business schools are unique in terms of enrollment is that recessions will tend to cause students to conclude that it is advantageous for them to pursue a program in college that helps them to earn a living. Thus, we can expect a cyclical effect in enrollments in business schools depending on the

state of the economy. But, in general, the trend in business school enrollment should continue to be positive, as a number of professions become more business oriented. The hospital administrator, doctor, librarian, attorney, etc. are all examples of increasing business administration.

Demographic data alone would suggest that full-time enrollments in schools of business are peaking and possibly leveling out. However, economic trends and changes in students' attitudes should continue to bolster business school enrollments relative to other programs in universities. The crucial determinant of enrollments is going to be the degree to which schools of business adapt to the needs of the market.

Several studies have attempted to explain individual enrollment choices in terms of standard demand functions. In other words, the enrollment choice is equivalent to the demand for a product, given its price. The findings from these studies indicate that students, in general, tend to choose the best academic option open to them and that they tend to enroll at the school with the lowest net costs.

Other studies have placed more stress on marketing concepts. Their contention is that universities must become more knowledgeable about the marketplace. These studies focus on identifying the criteria used by students in selecting an educational institution. The results of some of these studies indicate that students are attracted to good faculty, high scholastic standards, and special curricula. In addition, it was found that parents were interested in such factors as cost and location in the selection of a university.

Purpose of the Study

Evidence suggests that marketing of higher educational institutions is becoming widely accepted by university administrators (Cook and Zallocco 1983; Kotler 1974). These studies have focused on identifying the criteria used by students in selecting a university. No doubt, these studies offer interesting insights into the understanding of the student selection process. However, evidence also indicates that little attention has been focused on the possibility that students differ among themselves regarding the criteria they use to select a university. An understanding of how student groups (segments) differ in their decision behavior should create profitable opportunities for those schools willing to serve these different groups.

The implementation of a market segmentation strategy involves two basic steps. The first step consists of subdividing the market into distinct and meaningful groups of students who might merit separate marketing action. The second step is target marketing, which is the art of evaluating, selecting, and concentrating on those student groups that the institution can serve effectively. After all, focusing on the different needs through segmentation strategy, and developing specific programs for each segment, is the preferred approach to meeting marketplace needs (Wind 1978). This paper focuses on assessing the needs and wants of students of different races. More specifically, this study addresses the following:

1. How do the choice criteria differ among White, Black, and Hispanic students?
2. How do the choice criteria differ among all students versus business students?
3. How do these criteria differ between undergrads and graduates in the school of business?

Research Methodology

The initial task of the research was to identify decision criteria that may influence a student's choice of a four-year university. Twenty decision criteria were developed based on exploratory studies and a review of the relevant literature. Questionnaires were constructed to measure the perceived importance of choice criteria for choosing a four-year university. Pretesting of the questionnaires suggested modifications in the wording and ordering of the questions. The personal interview approach was employed. A sample of the population was drawn from a university located in a major midwest city. Personal interviews lasted approximately ten minutes each and were conducted by experienced professionals and students of the university. These interviews generated a data base comprised of 1600 respondents. Students were asked to rate the importance of each of the possible attributes (see Table 1) on a five-point scale, ranging from (1) not at all important, to (5) extremely important.

In addition, each respondent was asked to provide information on his or her national origin and the college in which enrolled (i.e., college of business administration). They were also asked whether they were enrolled as undergraduate or graduate students.

Results

Importance of Choice Criteria by Race

The average ratings of the importance of the 20 choice criteria, for the total sample as well as for four groups (Whites, Afro-Americans, Hispanics, and Asian/Pacific) are presented in Table 1. To facilitate a comparison among the four groups, each set of mean values was ranked to indicate the importance of each attribute within each group. The higher the score, the more important the attribute is in selecting a university.

TABLE 1
AVERAGE IMPORTANCE RATINGS OF ATTRIBUTES FOR SELECTING A UNIVERSITY BY RACE*

	Total Sample		Market Segments by Race: Whites		Blacks		Hispanics		Asian/Pacific	
Attributes	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
Quality of faculty	4.58	1	4.61	1	4.48	8	4.69	1	4.53	2
Degree programs	4.56	2	4.49	5	4.60	2	4.58	4	4.65	1
Cost (tuition fee)	4.52	3	4.52	3	4.63	1	4.64	2	4.51	4
Variety of offerings	4.50	4	4.51	4	4.51	7	4.47	8	4.53	3
Classroom instruction	4.47	5	4.54	2	4.56	4	4.49	6	4.38	6
Schedule of classes	4.45	6	4.48	6	4.54	5	4.56	5	4.19	12
Location	4.43	7	4.39	7	4.46	9	4.59	3	4.29	9
Student teacher ratio	4.35	8	4.18	9	4.33	12	4.42	10	4.31	8
Faculty student interaction	4.30	9	4.27	8	4.35	11	4.39	11	4.17	13
Financial aid	4.29	10	4.00	10	4.58	3	4.49	7	4.47	5
Admissions	4.27	11	3.92	12	4.44	10	4.44	9	4.15	14
Classrooms	4.19	12	3.95	11	4.27	14	4.21	13	4.30	7
Tutoring services	4.17	13	3.75	16	4.50	6	4.37	12	4.01	17
General athletic programs	4.08	14	3.88	13	4.29	13	4.02	14	3.13	20
Career services	4.06	15	3.80	14	4.25	15	3.95	16	4.05	16
University library	4.05	16	3.77	15	4.23	16	3.98	15	4.27	10
Computer labs	3.93	17	3.58	17	4.12	17	3.79	17	4.21	11
Health services	3.71	18	3.31	18	3.91	18	3.72	18	3.90	18
Handicapped facilities	3.28	19	2.78	19	3.57	19	3.60	19	3.17	19
Campus police (security)	3.00	20	2.71	20	3.09	20	3.05	20	4.13	15
Sample size	n=1534		n=1271		n=142		n=43		n=78	

* 1 = Not important at all, 5 = Extremely important

The Friedman test was performed in order to examine whether there are significant differences among the four groups (Daniel and Terrell 1989). This test produced a chi-square value of 19.095 ($p<.01$). This suggests the mean ratings of the choice criteria differ among the four groups. As can be readily seen from Column 1, Table 1, attributes deemed most important for students in the total sample were: quality staff/faculty, types of degree programs, schedule of classes, classroom instruction, location, student teacher ratio, faculty student interaction, and financial assistance.

How does the importance of choice criteria vary across race? Table 1 reveals that having a quality faculty was deemed relatively most important for Whites, Hispanics, and Asian/Pacific compared to Afro-American student counterparts, who placed more emphasis on the degree program and cost. Students in this segment (Afro-Americans) also indicated tutoring services as relatively more important in selecting a university compared to White, Hispanic, and Asian/Pacific students. On such decision attributes as financial aid, all minorities (Afro-American, Hispanic, and Asian/Pacific students) attach more importance compared to White students. For all four segments, attributes such as health services and handicapped facilities were deemed unimportant.

In summary, the findings presented in Table 1 suggest that the degree of importance of choice criteria in selecting a college tend to vary across different races. The ensuing section focuses on the second objective, which was to examine which choice criteria were considered important in selecting a university by business students.

Criteria Deemed Important by Business Students

Table 2 presents the relative importance of the choice criteria between business students and students in the total sample. To facilitate comparison, each set of importance scores was ranked to reflect the attributes relative importance. The sign test was performed to determine if there are significant differences between the two groups (Daniel and Terrell 1989). This nonparametric test computes the difference between the mean ratings and takes into account the number of positive and negative values. The results of the test indicatr a significant difference between business students versus the total sample ($Z=3.13$, $p<.01$). One can clearly see from inspecting Table 2 that the mean importance rankings of the choice criteria given by business majors were different on some criteria and similar on other criteria, when compared to the rankings in the total sample.

TABLE 2
AVERAGE IMPORTANCE RATINGS OF ATTRIBUTES*

	Total Sample		Business Major Students	
Attributes	Mean	Rank	Mean	Rank
Quality of faculty	4.58	1	4.59	1
Degree programs	4.56	2	4.42	5
Cost (tuition fee)	4.52	3	4.49	3
Variety of offerings	4.50	4	4.52	2
Classroom instruction	4.47	5	4.45	4
Schedule of classes	4.45	6	4.40	6
Location	4.43	7	4.34	7
Student teacher ratio	4.35	8	4.17	8
Faculty student interaction	4.30	9	4.15	9
Financial aid	4.29	10	3.89	12
Admissions	4.27	11	3.97	10
Classrooms	4.19	12	3.91	11
Tutoring services	4.17	13	3.68	16
General athletic programs	4.08	14	2.81	19
Career services	4.06	15	2.85	18
University library	4.05	16	3.80	14
Computer labs	3.93	17	3.83	13
Health services	3.71	18	3.22	17
Handicapped facilities	3.28	19	2.63	20
Campus police (security)	3.00	20	3.75	15
Sample size	n=1534		n=469	

* 1 = Not important at all, 5 = Extremely important

Choice criteria on which business students expressed interest were variety of offerings and classroom instruction. Attributes that were deemed equally more important by business students and students in the total sample were: quality of faculty, cost (tuition fee), location, and student teacher ratio. Choice criteria viewed less important were: campus police, career services, and handicapped facilities.

Importance of Choice Criteria by Graduate and Undergraduate Business Students

Table 3 presents information on the average ratings of the importance of the twenty criteria between graduate and undergraduate business students. The sign test was also performed here to determine if there are significant differences between the two groups (Daniel and Terrell 1989). The test proved to be not significant at the .01 level, indicating that there are not significant differences in the choice criteria between undergraduate and graduate business students ($Z=0$, $p<.01$). As expected, undergraduate and graduate business students have some common needs when choosing a university.

TABLE 3
IMPORTANCE RATINGS OF ATTRIBUTES
BUSINESS STUDENTS*

	Students		Grad		Undergrad	
Attributes	Mean	Rank	Mean	Rank	Mean	Rank
Quality of faculty	4.59	1	4.71	1	4.57	1
Degree programs	4.42	5	4.57	2	4.46	4
Cost (tuition fee)	4.49	3	4.46	6	4.49	2
Variety of offerings	4.52	2	4.52	5	4.44	5
Classroom instruction	4.45	4	4.49	4	4.41	6
Schedule of classes	4.40	6	4.56	3	4.52	3
Location	4.34	7	4.21	8	4.36	7
Student teacher ratio	4.17	8	4.19	9	4.10	9
Faculty student interact	4.15	9	4.23	7	4.15	8
Financial aid	3.89	12	3.12	14	3.93	11
Admissions	3.97	10	3.77	13	4.01	10
Classrooms	3.91	11	3.84	12	3.90	12
Tutoring services	3.68	16	3.10	15	3.78	15
General athletics	2.81	19	2.42	19	3.84	14
Career services	2.85	18	2.56	18	2.90	19
University library	3.80	14	3.87	11	3.73	16
Computer labs	3.83	13	4.09	10	3.86	13
Health services	3.22	17	2.80	17	3.29	17
Handicapped facilities	2.63	20	2.30	20	2.69	20
Campus police (security)	3.75	15	3.78	16	2.87	18
Sample size	n=469		n=72		n=397	

* 1 = Not important at all, 5 = Extremely important

As one can readily see from Table 3, the criteria judged to be important tend to be similar between the groups. The most important criteria that are common to both groups are: quality of faculty, variety of offerings and schedule of classes. Attributes viewed as least important by both undergraduate and graduate business students are handicapped facilities, health services, and athletic programs. In summary, an examination of the rank orders shown in Table 3 clearly suggests that the two groups (graduate and undergraduate business students) tend to have similar needs in selecting a university.

Implications and Conclusions

The evidence suggests several important implications for educators and key decision makers. First and foremost, the findings of the study clearly reveal that differences exist among White, Afro-American, Hispanic, and Asian/Pacific student groups with respect to needs and wants in selecting a college. Furthermore, the findings also reveal that business students differ in their needs from other students. These differences reveal important insights into the development of strategic programs for educators.

Product/Service Strategies.

The findings strongly indicate quality faculty as the most important decision factor in considering a college for the total sample and most groups. Having quality faculty members in diverse disciplines becomes instrumental in assisting students in solving today's pressing business issues. However, it should be noted that for the Afro-American group the quality of faculty was deemed of much less importance. If a recruitment program were targeted at this specific group, consideration should be given to emphasizing attributes such as cost/financial aid.

Classroom instruction is also viewed as an important criterion for business students in selecting a college. As faculty members become more creative by integrating theory and practice, their products will be better able to face the challenges of the 1990's and beyond. Classroom exercises should create dialogue between the faculty and students either individually or in groups. Such an open dialogue is important because it presents challenges to become better communicators and presenters of creative ideas.

In this decade, it will be important for educators and administrators to offer the right courses for the college they serve. In order to attract students of varied race and background, administrators will have to design their curricula to provide variety in course selection. Clearly, the college offering a variety of programs blending the theoretical aspects of classroom learning with the application of field experiences stands out as a new kind of university. In these competitive days, it is becoming increasingly important to prepare students to earn their living by learning the skills imperative to succeed in various professions.

Competitive Programs and Opportunities

Today, special challenges and opportunities exist for higher education. There exists a chasm between classroom learning and its applicability to business practice. To fill this chasm, administrators must make a serious effort to use their resources (e.g., quality faculty, classrooms, facilities) to bridge the gap between the academic course offerings and the real-word demands. Business graduates should have

entrepreneurial vision, leadership qualities, a good grasp of emerging technologies, and communication skills. These characteristics are becoming vital in today's global business environment.

Today's managers often contend that students leave schools trained in theory and techniques, but with little or no exposure to practical problems. Without a doubt, business graduates of the 1990's will not only be required to be proficient in the practical aspects of business disciplines (e.g., marketing, finance, production management, quality control, etc.), but they will also have to be prepared to better discern global trends. Therefore, business educators and university decision-makers must make an effort to respond to the needs of the business community.

As the diversity of the community expands, the need for different programs ensues. A university that offers a variety of programs at both the undergraduate and graduate levels to meet the needs of the various market segments can gain competitive differential advantage. To function more efficiently in today's multiracial society, specific programs aimed at specialized groups such Afro-Americans should be integrated into the system. Such programs must be designed to stimulate a deeper understanding and appreciation of the contributions of the different racial groups. This knowledge will help students gain the information, feelings, and attitudes needed to work effectively in a multiracial society. The penetration of such knowledge through courses, seminars, and lecture series makes business graduates better managers of tomorrow in today's global "business village."

Place/Location Related Strategies.

As revealed in the study findings, location of the university appears to be an important decision criterion. Kotler and Bloom (1984) note that when an institution attempts to target a portion of it marketing effort toward a given geographic area, it should be based on a careful analysis of the market potential of the area. Following this view, educators and key administrators should pay more attention to how accessible product/service offerings are to the student market. If the campus is located conveniently, it further enables students from all races and backgrounds to share their ideas and goals. From a strategic perspective, a central location presents a myriad of opportunities to administrators to serve both student groups and the surrounding community.

Price/Cost Related Strategies.

Findings of the study also reveal that for certain groups of students (Afro-Americans) financial aid and cost (tuition fee) appear to be more important in selecting a college than for other segments. A university that makes a commitment to offer financial assistance to such groups creates opportunities for less financially advantaged students who aspire to pursue higher education.

A market-competitive tuition fee structure and the availability of financial assistance through scholarships and internships may further attract more students from different walks of life. Financial assistance to such groups as Afro-Americans not only provides career opportunities, but also becomes a key to the general improvement of the education of that group. In a similar vain, offering scholarships/fellowships to Asian/Pacific students presents a university with an opportunity to serve international students in today's global world. This will help students in the sharing of inter- and intra-cultural activities.

In conclusion, by assessing the needs and wants of students of all races and backgrounds, educators and administrators can achieve a competitive position in the (student) marketplace. The challenge to colleges of business is even more unique because of today's unpredictable business climate. Educators and policy makers need to assume greater responsibility as the collaboration between the academic and business community becomes more prevalent.

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STUDENT PERCEPTIONS AND CLASSROOM BEHAVIOR: EVALUATIONS OF CLASSROOM EXPERIENCE, PERCEPTIONS OF STANDARD EVALUATIONS, AND EXHIBITED BEHAVIORS

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Abstract

Students in the College of Business were surveyed and observed regarding instructor effectiveness. It was found that student classroom evaluations closely matched actual conditions. Thus, the validity of student perceptions of standardized evaluation instruments was largely supported.

INTRODUCTION

There has been rising doubt in recent years as to the validity and even the appropriateness of student evaluations of faculty and courses on college campuses. Further, debate continues as it has since the inception of such reviews, as to the part they should play and the weight they should carry in personnel matters such as tenure, promotion, and retention.

Some educators fear these evaluations have lost relevance as times and students have changed. Educators argue that evaluations are well intended, but along the way students have become disinterested, and in many instances hostile toward the evaluations. Tong and Bures (1989) reported that many marketing faculty are dissatisfied with their current evaluation systems. Furthermore, faculty indicated that a better system needs to be developed to evaluate what students learned rather than how well they like/dislike the class and the instructor.

Conversely, there are those who believe that student evaluations provide invaluable feedback to help educators improve their methods and respond to specific student concerns. Others also point out that students are essentially customers; they consume instructors' and universities' services and thus have a right to review the quality of the service they receive. Among those taking a pure consumer orientation was Machina (1987). He stated that "when students underrate a faculty member, that means there is a breakdown in the teaching process somewhere, and it does not mean that the evaluation is an inaccurate measure of the thing it is really geared to measure" (p.22). Eckrich (1990) proposed an end to student input on questions of faculty and course quality. He argued that student evaluations have a place in the system if that system is responsive to its constituents. He further contended that student evaluations should not carry any weight in personnel matters, but rather serve as a formative tool to be considered only by each instructor on his/her own.

Martin and Martin (1989) declared that it is unrealistic to expect a faculty member's teaching to improve without accurate and precise information about his/her teaching behavior and skills. But even they tend to discount the appropriateness of using evaluations (by students and peers) solely for personnel decisions. They suggest, rather, that there be distinct evaluations for student assessments and feedback and yet others for personnel matters.

Care should be exercised when instructors and administrators use student assessments of instructors for personnel evaluation. Clayson and Haley (1990) stated that students seem to be reaching for the assessment holistically, and ignoring the individual substance of each question or statement on an evaluation instrument. Faculty members generally believe that student evaluations are biased by a number of factors they believe to be unrelated to teaching effectiveness, such as, course difficulty, grading leniency, instructor popularity, student interest in subject before course, and students GPA (eg. Chandler 1978).

Research Objectives

The purpose of the current study was twofold. First, to investigate the validity of student evaluations, and second, to secure student evaluations of various classes and instructors, independent of the standardized evaluations distributed every semester in almost every class on campus.

METHODOLOGY

Sample

The sample consisted of 72 students of the College of Business at an eastern state university. The students were enrolled in one of three courses,

marketing, management, and finance. The classes were composed of students from all disciplines within the College of Business. The students selected to participate in the study were those enrolled in classes that met in a classroom which was fitted with a two-way observational glass wall.

A profile of the respondents is shown in Table 1. The ratio of men to women was roughly equal (N-33 men, N-39 women). The combined total of junior and senior level students represented over 97% of the respondents. This may lend credibility to the idea that feedback from upper-division students might be the most well intended (Eckrich, 1989). Students' majors ranged across disciplines within the College of Business, including accounting, economics, marketing, management, finance, and office administration.

Table 1

Profile of Student Respondents

	Respondents	Percentage
YEAR		
Grad Student	1	1.4
Seniors	48	66.7
Juniors	22	30.6
Sophomores	1	1.4
Freshmen	0	0.0
Total	72	100.0
MAJOR		
Accounting	9	12.5
Marketing	32	44.5
Finance	3	4.2
Economics	8	11.1
Management	14	19.4
Office Admin.	6	8.3
Total	72	100.0
SEX		
Male	33	45.8
Female	39	54.2
Total	72	100.0

In addition to the student sample, the researchers questioned the respective instructors on their perceptions of the students in the classes surveyed. No prior notification was given the students, but instructors were contacted for prior approval to distribute the questionnaires.

Instruments

The instrument developed was a self-administered questionnaire which was composed of a combination of dichotomous, multichotomous, and open-ended questions. The open-ended questions were included to provide students the opportunity to respond without constraint and provide opinions of various classroom elements which contribute to the overall learning experience. For another perspective, instructors also were encouraged to comment on positive and negative aspects of their students. The intention was to generate feedback that might serve to bring student and instructor into a closer working relationship, possibly bridging some communication gaps.

The dichotomous and multichotomous questions were derived largely from the standardized student evaluation questionnaires administered at the university but with additions, corrections, and improvements. The researchers felt it necessary to edit questions as some offered little or no pertinent information and others provided irrelevant information. Working within that framework, it was assumed that all responses would be of some intrinsic value.

With reference to the section of the survey which questioned student's personal preferences and behaviors, the questions were designed to elicit a response that would enable the analyses to be efficient, yet complete. In being "efficient", it was assumed to mean that values were easily coded and analyzed.

When presented with open-ended questions, almost all respondents took the time to respond in earnest, lending credence to the idea that students took their task seriously and took the time to consider their responses. Examples of open ended questions that were asked: What is the most positive aspect of your instructor (student questionnaire)? What is the most negative aspect of your students (instructor questionnaire)? It should be noted that the questionnaires were distributed at the end of classes when most students would be expected to flee the room leaving skid marks rather than sit through yet another course evaluation.

The self-administered instrument asked student perceptions of the standardized evaluations and for an evaluation of a particular class and instructor. To lend credence to the validity of the instrument, researchers observed the behavior in the classes via the two-way glass wall. Thus indicating that if observed classroom conditions matched student evaluations, it should follow that responses to questions about standardized evaluations would be equally honest and accurate.

RESULTS AND DISCUSSION

Statistical Analysis

A frequency count indicated that reasons students enroll in particular classes were instructor, material covered, schedule fit, requirement and elective. The greatest response (47%) was that of requirement followed by fits my schedule. It is a popular belief that students generally choose a course because it fits their schedule or they heard of the instructor's "generous" reputation. In the case of the respondents in this study, the reason for enrolling in these courses does not adhere to that theory. This statement was supported by the results which clearly identify "course requirement" as the ultimate motivator.

A crosstabulation was performed between the variables SEX and INSTRUCTOR RATING. These tests were constructed to determine if an association existed between ratings of instructors by male and female students. Students were asked to rate their instructors compared to other instructors on campus. Students ranked the instructor on a five-point scale from "one of the best" to "below average". It was found that most males (greater that 50%) rated their instructor as "above average". Females, on the other hand, were divided about equally rating the instructor "one of the best", "above average", and "average". This may indicate that male respondents may not perceive the ranking as a highly involved decision and therefore are more apt to elicit a positive response without showing a high compliment. Females, on the other hand, showed such a wide array of responses that it might be indicative of a thought out response. It should be noted that none of the students rated their instructor "below average".

When classes were being observed, it was found that the instructors displayed a strong knowledge of their subject. In fact, during a particular finance class, after being challenged by a student, the instructor offered to accompany the young accounting major to his accounting instructor and demonstrate a particular point to both student and accounting instructor. Perhaps this type of communication could be a vital factor in accomplishing the goals of educators to clarify knowledge and to show that various points of view may cross college of business disciplines.

The researchers believed that instructors knowledge ratings would differ based upon the number of times a student was called upon in class to answer questions. This premise was based upon the notion that students who are called on frequently will offer favorable rankings to the instructor because (1) they have greater interest, and (2) they pay closer attention. To see if a difference existed between students an ANOVA was used. Results indicated that a significant statistical difference ($F = 5.81$, $p = .001$) was found between the students based upon participation in class and the ranking they gave the instructor. The data also were supported by the classroom observation.

Another ANOVA was run to test for differences between the students perceptions of the quality of education with their particular instructor and the ratings of that instructor based on his/her knowledge of the subject. There was a statistically significant difference ($F - 4.11$, $p = .02$) between the two variables. Based on the open-ended questions that asked the respondents to report the most positive aspects of their instructors, it was found to be quite likely that those students who are happy with the quality of education they are receiving from their instructors are more apt to give them a favorable rating. On the other hand, those students who are unhappy with the quality of education will tend to offer a poor rating.

A final ANOVA was calculated to determine if any statistically significant differences occurred between those students who were/were not prepared for class and whether or not those students attended class regularly. In contrast to preconceived ideas, there was found to be no significant difference between the two groups of students. Though it would appear that a prepared student would attend class more regularly and vice versa for the unprepared student, the data suggest otherwise. In addition, attendance and preparedness did not seem to affect instructor evaluations.

Perhaps the most thought-provoking result of the survey was the attitude of students toward extending the courses to two semesters. The students felt as though they needed extra time to learn more than the fifteen week courses could possibly and reasonably supply. This may indicate that business schools might need to look at the possibility of five year programs. Whatever the case, that is beyond the scope of this study.

Observational Analysis

As a method of checking response accuracy, the three classes that were surveyed were also observed via a two-day glass wall. The method was invaluable as a tool in assessing the accuracy of questionnaire responses.

As found in the survey, most students perceived their instructors to be above average in knowledge about their field. Upon observation of each class it was noted that the instructor seemed to hold a high degree of insight into the given business discipline in which he/she was teaching. There was mention, however, of the fast pace with which some finance material was covered. Upon observation it was found that although the instructor moved at a demanding pace, he was more than willing to expend his time to elaborate on unclear or highly involved material. In fact, the very concept of being there for students was a prominent comment in the open-ended responses.

These is ongoing debate concerning the question of student's adapting to some instructors' sometimes incomprehendable foreign accent. However, the results from the data showed no true cause for concern in this area (3 out of 72 respondents reported difficulty). The observations supported these findings.

One of the most promising aspects of the observation was support of the survey responses that students believed their instructors were very enthusiastic in teaching the respective courses. It is generally thought that students with highly motivated instructors also would be inclined toward enthusiasm for the material. Once again, observation showed that the instructor's motivation "rubbed off" on the students and led to a highly productive class session.

According to the data, students believed that instructors who made heavy daily assignments were helping them in that it made them learn the material in a practical manner, as well as offering more than one method on which to base grades. Once again, in observance of the classes, it was found that the daily assignments did, in fact, help students learn the material and posed points of interest for class discussion.

To conclude the observation analyses, there are some points of interest to be elaborated. First, the instructors in the classes surveyed were extremely willing to help students during both class and personal time. It was apparent, however, that some instructors would not hold up class time to discuss points that were misunderstood by only a few students. Second, all three instructors showed a definite enthusiasm for teaching, which, as the observations showed, influenced the attitudes of the students. Lastly, those instructors who "forced" their students to do work seemed to enjoy a higher interaction with their students creating a continuous feedback system that benefitted both parties. The researchers generally accept the idea that within the classes surveyed there was a genuine reliability and validity of responses to the written questionnaires. However, these findings are not generalizable to all students and all instructors due to the sampling technique used to collect data.

Recommendations and Conclusions

Since the study focused to a certain degree on the controversial use of student evaluations it is believed that the area needs more discussion and thought. Eckrich (1989) reported that 20% of the students in his study had a negative attitude toward the use of evaluations and the current research indicated that 10% of the respondents did not take them seriously. These numbers are very small and may seem relatively unimportant, but looking at it in another way, it can be said they are disturbing. Many universities consider these evaluations as a viable tool toward evaluating their faculty, but if students are apathetic to their use, these evaluations will lose their credibility. It is the consensus of the researchers that there are definite steps that universities can take which might help toward developing a better evaluation system.

A two-fold system is recommended. There should be two distinct evaluations for the classroom experience. The first evaluation would strictly be a feedback mechanism for the instructor as suggested by Martin and Martin (1989). It would include 10 questions (half open ended) that would focus on teacher effectiveness.

The questionnaire would be distributed at the end of the semester and would be strictly optional to the student. Being optional should be stressed because that would significantly reduce the uncaring attitude students sometimes have toward evaluations. The instructor would be the only reader of this survey and could enjoy genuine benefit of constructive criticism from the thoughts of his/her students.

The second evaluation of the classroom experience would require greater effort from both students and administrators. It is recommended that an outside of class evaluation be administered to students by university administration. The researchers believe that a two to five minute evaluation of the course and instructor (based on the researcher's own experience) is ridiculous. Since students spend 45 hours in a classroom with an instructor they could provide valuable insights in evaluating instructors. The system would call for administrators to sit down and develop a questionnaire that would truly have pertinence to classroom instruction. The questionnaire should remain practical in nature, but be focused enough to be representative of the course. In addition, the evaluation should be optional for students and should not provide any extrinsic incentive to the student. The incentive for students is that they could make a difference. These extra efforts by students could help college officials retain quality faculty or release poor instructors.

The researchers believe this two-fold system would increase the credibility of evaluation systems. Implemented with the proper time and effort, this system could be a viable tool in the evaluation of teacher effectiveness.

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AN INVESTIGATION OF EDUCATIONAL NEEDS FOR MARKETING RESEARCH PROFESSIONALS

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Abstract

This study applies a conceptual framework to identify the adequacy of current masters programs in meeting the skills needs of research professionals. Several areas of study have been overlooked by researchers in efforts to determine the perceived service quality of traditional MBA programs as it relates to needs of marketing research practitioners. An empirical study was undertaken, the results of which suggest that marketing educators believe a significant gap exists between their perceptions of student expectations and the performance of MBA programs in meeting such expectations.

Introduction

The ability of conventional master of business administration programs to provide adequately skilled graduates has been the subject of increased attention in the past decade. MBA programs often have been criticized for their inability to meet the ever changing and growing needs of a complex and rapidly changing business environment. Even more disconcerting are the findings of Jenkins, Reizenstein, and Rodgers (1984) that MBA graduates tend to lack operational decision-making skills (as perceived by Fortune 500 executives) and that neither executives nor academicians are satisfied with MBA graduates' communication skills.

There are stronger indications that conventional MBA curricula are inadequate to meet the specialized needs of aspiring marketing research professionals. For example, Murphy and Laczniak (1980) found that while marketing research was the second most commonly offered graduate marketing course, only 15 percent of MBA programs required the course. Furthermore, less than six percent of the institutions surveyed offered more than one course in marketing research at the graduate level. Anderson (1982) concluded that a considerable gap exists between the needs of marketing research practitioners and the skills typically emphasized in MBA programs. Additionally, Parasuraman's (1981) findings support the existence of a skills gap for entry-level marketing researchers.

There is some debate as to whether developing specialized degree programs would be an effective response to the apparent expectations-performance gap suggested in the literature. Rudolph (1981), for example, argues that overspecialization deprives students of a well-rounded education. Furthermore, the specific educational needs of the research practitioner may be so diverse as to prohibit the effectiveness of any one specialized program of study. Specialized marketing degree programs may also present other problems including staffing difficulties, scheduling problems, and inflexibility (Conover and Byron 1988).

On the other hand, there is support for specialized programs based on rapidly changing environments and expanding technologies which demand a level of technical mastery, not provided by "generalist" oriented masters programs (Morris 1987). In the marketing research area, there is sufficient evidence that practitioner/managers find a specialized master of marketing research program favorable for entry level practitioners (Reynolds 1981) and that firms have higher expectations than ever before from marketing researchers (Hupp and Redington 1990), prompting an increase in the need for entry level professionals with specialized skills. However, in a study of AACSB accredited universities, Giacobbe and Segal (1991) found that less than 7 percent of marketing research faculty reported that their institution offered a masters degree with some type of specialization in marketing research. The authors were able to identify only seven such universities: The University of Georgia and Southern Illinois University at Edwardsville (Master of Marketing Research); University of Wisconsin - Madison and University of Arizona (Master of Science in Marketing, Research Specialization); The University of Texas - Arlington (Master of Science in Marketing Research); and DePaul University and The University of Cincinnati (MBA with a Specialization in Marketing/ Marketing Research).

Since the late 1970s the demand for highly trained marketing researchers has consistently exceeded supply (Honomichl 1980; Hupp and Redington 1990; Yovovich 1979). It is surprising that educational institutions have responded slowly to what appears to be dissatisfaction with the skills of entry level marketing research professionals and perhaps the educational services afforded them (Segal 1987; John and Needel 1989).

An overriding shortcoming of research in this area is the absence of a theoretical framework/model that can serve to guide empirical investigation. It is suggested here that the absence of a theoretical model has impeded the understanding of how educators/educational institutions can best respond to unmet market needs, such as the one just described.

The purposes of this paper are to summarize the existing literature regarding the adequacy of MBA programs in meeting practitioners needs, propose a conceptual framework to assist in future investigation, and report findings from a study of academicians that support the existence of an educational performance gap among marketing research professionals.

Background

Trying to identify whether a current academic program meets the career needs for students of marketing research involves determining whether the services provided by educators (and institutions) instill students with skills that research practitioners are expected to possess. These expectations are ultimately driven by the employers of these students after being hired by a firm. Providing adequate educational services to students is derived in part by the expectations of prospective employers who hire graduates on the basis of skills and abilities developed while in school. As such, while the primary responsibility of educators and

educational institutions is to satisfy students' educational needs directly, perceptions of such needs, are indirectly influenced by employers' expectations.

After reviewing the literature on service satisfaction and service quality, it appeared that the gap model developed by Parasuraman, Zeithaml, and Berry (1985) and applied empirically by Brown and Swartz (1989) could serve as a basis for research conducted to determine the effectiveness of graduate programs in meeting both student and practitioner/employer expectations. The basic difference between service quality in the original gap model and application in this context is that here, three parties, educator, student, and employer, form the basis for a complex interrelationship that determines the level of service quality that is ultimately achieved.

The framework developed and used in this study, involved detailing the interrelationships that exist among the three key participants within the service-market for educational services at the graduate level. Previous studies have not conceptualized educational services in this way. In fact prior investigations limited their scope to practitioners perceptions of the efficacy of academic programs. While knowledge generated from such studies helps to identifyi whether the marketplace is satisfied with the education received by junior level marketing researchers, it provides little direction about how to remedy any identified shortcomings.

The resulting framework generated twelve "gaps" representing four distinct areas of potential discrepancy, each of which relates to a particular service provider - service recipient dyad. One dyadic relationship involves the practitioners/employers as service recipients and the graduated students/employees as service providers . The second dyad involves educators as service providers and graduate students as recipients. Finally, a third dyadic relationship reflects the relationship between educators (service providers) and practitioners/employers (recipients).

A review of the relevant literature identified a few studies that relate to the framework just discussed (Holbert 1974; Bellenger 1979; Anderson 1982; Reynolds 1981; John and Needel 1989; Parasuraman 1981; Segal 1987). However, while some of these works seemed to be directed at one of the twelve "gaps," none measured the appropriate variables to determine the actual existence of any service quality gap.

The Study

A study was undertaken to identify the existence of a specific service quality gap as it relates to conventional MBA programs' ability to serve the needs of marketing researchers. This particular gap represented the difference between educators' perceptions of students' educational service needs and the services delivered by conventional MBA programs.

The objectives of the study were to (1) determine if a significant gap existed between marketing researcher educators' perceptions of students' needs and the ability of MBA programs to meet those needs, (2) to identify specific skills areas (from Parasuraman 1981, Segal 1987, and John and Needel 1989) which contributed most (least) to any identified gap, and (3) to determine if any such gap is related to characteristics of the academic institution represented by the respondent.

Method

Questionnaires were mailed to a sample of marketing faculty and chairpersons from AACSB accredited universities in the United States. Chairpersons were asked to forward the questionnaire to a marketing research faculty member. The sampling frame was derived from a list of accredited business schools and the most recent American Marketing Association directory. Approximately 200 usable questionnaires were received, representing a response rate of more than 40%.

The questionnaire was designed to be consistent with both theoretical and empirical literature on service quality measurement. The first section of the instrument included a set of specific marketing research skills/abilities that marketing research professionals should possess (expectations). The respondents indicated the extent to which they agreed/disagreed with the statements on a seven-point Likert-type scale. Additionally, respondents provided assessments on the ability of MBA programs to teach marketing research related skills (performance). Evaluations were elicited for the same list of skills and included a seven-point Likert-type scale with the same descriptive anchors. Both sets of measures were used to compare expectations with perceived performances to obtain a measure of the service quality gap being investigated.

Respondents also provided information about their personal characteristics (e.g., teaching experience, academic rank, gender) and the characteristics of their institutions (e.g., size, public/private, region). When possible, Chi-square tests were applied to determine if the characteristics of the response group differed from known distributions of the sampling frame and/or sample (mailings). In each instance, no significant difference ($p<.05$) was found, suggesting that a reasonably representative sample was obtained. Furthermore, nearly three-fourths of the respondents reported marketing research as one of their primary teaching areas, indicating that the mailing was relatively effective in targeting intended recipients.

Results

The findings demonstrated statistically significant ($p < 0.01$) individual gaps between each skills area examined. Several researcher skills, rated as important by practitioners in prior studies, displayed considerably wide gaps. Included among these were data analysis skills, problem definition skills, communication skills, statistical skills, design skills, and oral presentation skills. These same skills were all rated extremely high by respondents (educators) when assessing their perceptions of abilities marketing research practitioners should possess. Furthermore, there were no significant differences ($p <.05$) in mean responses for either expectations or performance measures across respondent characteristics or school characteristics.

Conclusions

The findings support the contention that a "research skills" gap exists, and that marketing research educators rate a conventional MBA program's ability to provide marketing research skills as inadequate.

The results from this research investigation clearly indicate that marketing research educators' service expectations for professional marketing research skills are greater than their perception of MBA programs' service performance. The study has also identified critical research

skills where the gaps are the largest suggesting guidelines for improvement and innovation in marketing/marketing research education. The fact that marketing research educators perceive a wide discrepancy here is important. This is because it is precisely this group of individuals who likely have the most accurate understanding of the educational services that an MBA program provides. Furthermore, these findings corroborate previous findings that focused on practitioners, whose perceptions of the actual services delivered by educators may be less precise.

There are at least three practical implications of these findings. First, academic institutions should review the effectiveness of their particular graduate programs. While this applies directly to marketing research studies, it is likely applicable in other areas. Second, business school faculty and administrators might more strongly consider the option of developing a specialized program to meet the identified needs of marketing research professionals. Third, current directors of specialized marketing research programs might review and fine tune their curriculum based on the findings of this study.

There are several areas of potential research worth investigating. Many "gaps" have yet to be investigated. Furthermore, much can be learned about the effectiveness of specialized marketing research programs. That is, a study can be directed toward educators or practitioners specifically regarding students/graduates of specialized graduate marketing research programs. Such a study is becoming increasingly feasible as the number of graduates from such programs grows. Finally, studies directly measuring the student/graduate, either in the role of a service provider or recipient, can provide important insights to improving the service quality of current and future marketing research educational programs.

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TEACHING MARKETING COURSES IN CHINA'S M.B.A. PROGRAM

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Abstract

This article is concern with evaluating the author's experience in developing and teaching two M.B.A. marketing courses at Xiamen University, Xiamen, Fujian, People's Republic of China. It examines the strengths and weaknesses, the problems and opportunities for maximizing benefits of developed countries' technical assistance programs. The evaluation is conducted with a view to improving the benefits and satisfaction of government programs; individual instructors' effectiveness in teaching; and students, employers, and institutions' benefits and satisfaction.

Introduction

The desire for a more peaceful world and the dismantling of the Communist systems have shifted focus in the relationships among countries from boycott, destructive competition, and sabotage, to better understanding and cooperation for world wide development. An important tool in this process is technology transfer. Western countries' management education can be interpreted as a form of technology transfer.

Management and marketing knowledge and skills have been credited for the rapid growth of the developed countries. Thus, in the pursuit of a more rapid growth and development, less developed countries have been seeking, and developed countries have been offering among their aid programs technical assistance in the form of financing management education programs which had been non-existent or deficient in developing countries.

Siu (1991) contends that management education has earned an important place in the economic reform and modernization of the People's Republic of China at the same time that research interest in studying it has increased. However, both Chinese (Chan & Guan 1986; Lau & Chan 1987; Wang 1987) and non-chinese (Limerick et al. 1985; Warner 1985, 1987) academicians have adopted a broad and general approach in their examination, and individual specializations or disciplines, like marketing, have been inevitably neglected (Siu 1991, p.212).Many academics including Drucker (1958) and Rostow (1971) have acknowledged marketing as a major force for economic change in the developing countries. Yet, planners, managers, and other administrators in those countries still know little about marketing (Kotler 1984,p.viii). Perhaps, because of this, the need for, and issues of marketing education in Third World countries are attracting growing attention (Ross and McTavish 1984; Kinsey 1987; Zhou 1991).

The importance of marketing in China has been growing since its economic and management reforms began in 1979 (Kin-chok 1984, p.247). Marketing education had been abandoned in China for four decades. However, in June 1983 marketing was included in the required courses for higher educational institutions under the jurisdiction of the Ministry of Commerce (Zhou 1991). Short, intensive marketing courses are particularly popular in government or corporate-sponsored management training programs.

Course Planning and Development

This article covers a descriptive, and experiential assessment of planning, developing, and teaching Marketing Channels, and Marketing Communications courses in China from February 1990 to May 1990. Its purpose is to provide insights on the status of Chinese attitudes, skills, and management knowledge development, as well as an evaluation of the teaching/learning environment and process in China.

Instructors at Canadian universities in the east were invited to submit to the program director, Dalhousie University, a proposal for developing, and if approved, teaching two M.B.A. marketing courses at Xiamen University, China. This is part of the Canada-China Management Education Program Phase 11, which is a CIDA-sponsored project of the Canadian Federation of Deans of Management and Administrative Studies (CFDMAS). The author's proposal was accepted and he was invited to teach the two courses. He was informed all the Chinese students in the courses spoke English, and the courses were to be taught in English.

Colleagues who had taught or were teaching similar M.B.A. courses in different countries and cultures were contacted to gain the benefit of their experiences in planning and designing the courses. One of the aims was build on the experience of those who had gone before including Lindsay and Dempsey (1985) who disclosed:

> even though we planned to teach American business behaviour from the perspective of the U.S. business, we needed to understand - and deal with - the differences between Chinese and American perceptions, assumptions, and behaviours in business situations.

In the development of management education programs for Third World countries, attention must be paid to such factors as culture, stage of development, technology, and socio-political elements. Chinese universities, for example, ceased offering marketing courses after 1949 due to changes in China's political, economic, and social environments (Zhou 1991). These uncontrollable factors would add to the

complexity and confounding nature in designing management education and marketing programs, particularly for socialist countries such as China.

Deng Xiaopeng, China's leader, has acknowledged that the problems which arise from China's economic reform may be seen as challenges which can be translated into new opportunities for development. Chan (1989) maintains " as marketing educators are involved in teaching customer orientation, it is important to seek understanding of marketing training in China to serve as guidelines for improving the quality of instruction" (p.35).

Mindful of Chan's (1989) recommendation that with the increasing number of foreign educators participating in training managers in China, it is important that training efforts be effective, the author tried to pay special attention to the planning and design of the course -Dwight D. Eisenhower's "plans are nothing, planning is everything" (Aaker 1984, p.3). The author believed that any failure, coming after Tiananmen Square, would likely be interpreted not as the failure of the Chinese or both parties but rather the failure of the Western instructors.

Course Outlines and Structure.

The course outlines were distributed on the first day of class. The rationale for the various elements and the grading scheme were discussed at that time. The outline mapped out the course and listed the texts and references. It described the objectives and the approach for achieving those objectives. It gave a "teaser" introduction to the subject matter and listed the percentage allocation to each element of the course. The marking scheme was the same for both courses:

3 Hand-in cases	15%
Role playing exercises	15%
Group project/presentation	20%
Mid-term examination	20%
Final Examination	30%
Total	100%

In addition, there were in class case analysis competitions (5% bonus) with each team playing the others in a schedule similar to any competitive sport. More than fifty business textbooks which had been shipped to China prior to the instructor's departure were distributed as prizes. Prizes were offered for first and second round leaders, as well as overall case analysis champion, best role-playing presentations, first, second, and third places in the mid-term and final examinations, and for the top three students in the courses. Prizes were offered for the most improved students as well as students judged by their peers as contributing most to their learning in the course. Prizes were also given for best projects, and for the best presentation of the research/learning experience.

Implementation

In spite of the author's preparation, there were a number of surprises in the implementation. These surprises came in the area of simple things, which we take for granted and which can make a substantial difference in our teaching effectiveness. For example, over overheads could not be consistently used because of the unavailability or non-functioning of projectors, electricity outage, and lack of screens to shut out the light above the blackboard. The chalk, yellow and soft, quite often provided comic relief with every attempt to write on the board.

There were twenty three men and seven women in the Marketing Communications course, and nineteen men and one woman in the Marketing Channels course. These women proved to be more than enough of a challenge and competition for the men. After the first hand-in case, a prize was awarded for the best analysis. The very first prize handed out in the Marketing Channel went to the female student in that course. The male student whom she edged out asked me: "what do I have to do to win a prize?" I replied: "beat Shirley, but not physically, of course." In the Marketing Communication course, a male and female were tied as joint winners of the first prize. This early hand out of prizes generated intense competition among the members of the class and as well increased the classroom rivalries between the sexes. Overall, females topped the class in both courses, and, on the whole, won a disproportionately greater number of the prizes.

There was little doubt that these were very intelligent and highly motivated students. The competition among the students were such that in one class where one team that had appeared to be at the middle of the pack gave a superb performance to defeat the leading team. All members participated in the presentation and analysis of the case. I congratulated them on their performance and a number of the other students said that the team had worked on the case up to three o'clock that morning. They had set their standards, and they worked diligently to achieve them. I was moved by the motivation and the preparation that the students put into the courses. One group, which did a poor job of their project was very apologetic when I called them into my office for a talk and handed it back to them as unacceptable. I gave them a chance to do a better job and return it to me by a specified time. They did a good job the second time around.

When projects were first assigned all the students said that they could not be done because Chinese managers would neither let them into their company nor cooperate with them. They said other professors had the same idea but had all abandoned it. I had encountered a similar experience more than twenty years earlier in Canada when I began teaching and I had refused to accept it.

Projects are an inherent element of my courses wherever I have taught. Thus, the students were

asked to use their initiatives in trying to get companies to cooperate with them on their projects. Nevertheless, they were presented with ideas and suggestions on how to approach companies- effective communication. However, to make sure that they would have no excuse for not doing a project and as a contingency measure, I met a number of managers from companies. Whenever I was introduced to them, I would fill them in on what I was doing and trying to accomplish. I solicited their cooperation and pointed out the benefits to them. A number of companies agreed to allow my students to do projects on their companies, and I was beginning to fear that I might have companies without student groups to undertake their projects.

Some managers were given permission to audit the courses. On a few occasions, however, there were some men whom I did not know or recognized, sitting at the back of the class. Afterwards, the students told me, when I enquired, that those people had heard about my teaching style and had come to witness it. Managers were invited to talk to the class, and I gave mini-lectures to some of their companies' young managers.

I found very helpful discussions which I had with other foreign professors teaching on similar business programs at other Chinese universities. I discussed with them teaching methods that must not only contribute to the overall goals of the course, and that recognize the prior preparation of the students (Henke et al. 1988; Weston and Cranton 1986), but must also relate to the overall objectives of the program.

The chairman of one very large chinese corporation invited me and two teams doing projects (one for each course) on his company to participate in the "Guangzhou Import and Export Commodity Fair." It was an opportunity to view the operation and to meet managers. I sent a request to Canada for funding to help pay the travelling expenses of the two groups of students, but it was not acted upon. The students were very disappointed that they were unable to go, and I was even more disappointed that we had missed a window of opportunity.

In teaching the two courses, I tried to incorporate and take account of Chinese perceptions, prejudices, and assumptions of management education, marketing, and foreign business. I did it by using the western textbooks to draw out comparisons with Chinese practices and to assess Chinese interpretations and meanings of business and marketing principles and concepts. I also tried to do so using materials I had collected for role playing and in discussing current topics. My interests, education, background and work experiences were useful in doing this. I was able to gain the students' trust, and thus, lowered barriers to effective learning. This was critical since I had intended to depart from culturally influenced expectation of how professors should teach.

Kamath (1990) contends Role-Playing helps "to overcome the difficulties of dealing with a country with a sometimes radically different culture, divergent business practices and an uncomprehendable (sic) language - to drive home the lessons of understanding international diversity and cultural sensitivity" (p.119). I had to try to minimize the uneasiness that the Chinese students felt with the participatory and argumentative atmosphere engendered by the use of the case method.

It was difficult to get the students to do anything, but listen and write in the first week or two of the courses. I had intended to lecture on a declining basis during that period to provide a fair amount of information, back ground, and foundation for the learning process, but it would have been nice, nevertheless, to have them open up and participate almost immediately. After class one day, they enlightened me on their culture which accounted for their reluctance to speak and to question the instructor. I learned from them that, among other things, they were brought up to sit, listen, write and not question or challenge the teacher. This supports Zhou's (1991) report that the lecture format, the known Chinese "tian ya shi" (forced feeding duck method), is still the most commonly used method. Nevertheless, I persevered with my design as I believe that "the more instructional variables used the greater the opportunity for active learning" (Mitchell 1984, pp.41-56). I believed that this eclectic approach would help to dispel the complaints from business people about poor preparation of students.

Analysis and Evaluation

The management background of the class in terms of their ability to understand and participate in the two courses could be rated as low to medium at the beginning. At the end, however, it had improved to: excellent 20%; very good 35%; satisfactory 10%; barely adequate 10%; and unacceptable 10%. This evaluation is based on a combination of reading comprehension, writing ability, listening comprehension, and oral communication. Their memory and recall were excellent. Their writing ability was not as good, no doubt because of the language background, for example the lack of definite and indefinite articles in the Chinese language. However, their speaking ability was, understandably, the weakest of the four language competency categories. A short intensive language course prior to entry into the M.B.A. program and or an English Language competency test to ensure a certain level of understanding would be very beneficial to the students, the learning process, and the program.

A Canadian colleague with whom I shared the apartment in China, and who taught two of Xiamen University's M.B.A. accounting courses informed me that the criteria which he used for evaluating the students in China were just as stringent for technical content, but, perhaps, a little less stringent for expression because of their language. Whereas in Canada he would have marked down the Canadian students slightly for their imprecise language, he did not do it in teaching the courses at Xiamen University. His course

structure was also different from what he would normally have used in Canada. He contends that he had to structure it differently because of the lack of modern media. He used more lectures and brought in guest lecturers. He rated the students as: Excellent 10%; Very Good 50%; Satisfactory 20%; Barely Adequate 10%; and Unacceptable 10%. He said that the Chinese students' performance was substantially above in the discipline compared with Canadian students he had taught up to that point. The Chinese students had worked very diligently, and although some of them were very poor in oral communication and basic knowledge related to the subject when they started off, it was amazing how quickly they picked up. My experience was very similar to what he told me.

I was informed by the dean, the coordinator of the program, and others to whom the students fed back information about the two courses that the students declared that I was working them very hard. However, they also maintained that they had learned a great deal and that my roommate and I were very fair and very good professors. They did appear to have learned a great deal, judging by the progression of their marks, their presentations, and the development of their self-confidence.

Here is an example of a student evaluation:

Marketing Communication

Promotion is our second course in Marketing. Marketing is useful, interesting, exciting, challenging and have significant social and economic impact on our society. Although China is a socialist country, that means we have totally different political and social system, we still benefit lots from learning in this course. We know that communication is critical for the success of business and industry, China is not with exception.

In this course we choose case study as a "lead element," the following items illustrate what I have learnt in this course:

Lecture -Professor gives us a broad view of the understanding of the use and effectiveness of marketing communications in theory and practice. Also, Professor provides supplementary materials which give us a help in further understanding of this course.

Textbook - thoroughly read it through self-teaching.

Case Report & Role Playing - This is the main benefit we get from this course because case discussion require us (individual or team work) to deal with realistic selling problem and reach solution, also we "act out" sales communication.

Term Project - This is the first group project since we enrolled in the M.B.A. program. Even though we had no experience before and most companies are reluctant to give support, we still try to work it out and gain lots of experience.

Examination - Fear and tear.

Suggestion: more individual case report, more lecture and more class discussion.

Thanking you for coming to China to teach us. We enjoy this course.

Conclusions

I introduced the students to methods that they had not been exposed to previously. Such methods included competition, discussion, projects, and role playing. This can be seen as a form of technology transfer. Joint problem solving requires a relationship of trust and successful adaptation of technology transfer depends on knowledge, know-how, and relevant infra-structure, according to professor Norman McGuinness with whom I had a discussion about the model he is currently developing.

The pedagogy evoked great interests among the students and others who heard about it including a journalist who waited at my office to interview me. Some Chinese business association executives also asked me to address their annual meeting.

Course related field trips can be invaluable in cementing concepts and principles. They will enhance the learning experience, generate goodwill, and create other advantages including University-Business cooperation and understanding. They should be encouraged by making allowances for them in foreign aid management programs. Their potential pay offs are very high, especially if they are in accord with the programs' mission and objectives when they will maximize the benefits to all concerned. Short intensive language courses - English for the students and Chinese for instructors - could pay great dividends, as can an introductory management course covering all functional areas to shore up a weakness in the existing program. Marketing does not fit very well into the Chinese economic system. It is difficult to do the complete marketing job. Nevertheless, my overall assessment is very positive.

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AN EXPERIENTIAL APPROACH TO BRING REALITY TO INTRODUCTORY MERCHANDISING STUDENTS

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Abstract

Much of the material that is taught to students is limited to textbook lectures, field trips, guest speakers, and library projects. This article reports on an exercise that exposes students enrolled in an introductory apparel merchandising class to various aspects of retail merchandising in action. A summary of the students evaluation of the experience indicated that such exposures should become a part of the course curriculum.

Introduction

According to Henke (1985) when it comes to introductory classes, most students are not there because they want to be rather it's because they have to be. However, at this stage of the learning curve, the opportunity to enlighten students regarding their chosen career paths or to expose students to alternative path is great.

In retail merchandising programs, most students that are enrolled hope to become buyers. However, with the ever increasing plight of merges, acquisitions, and bankruptcies in retailing, the number of openings for buyers is decreasing. Hence, at the introductory level, exposure to various careers in retail merchandising through an experiential exercise will benefit students by: 1) bringing reality to what retail merchandising is really all abut; 2) exposing them to alternative positions in retailing; 3) aiding in the retention of textbook information; and 4) creating excitement for their chosen careers.

According to Schaeffer (1987) introductory merchandising courses generally have high enrollments that inhibit the use of experiential exercises. She claims that small groups are needed to make such "hands on" experiences truly effective. However, even with the large enrollments that are present in introductory marketing, merchandising, and similar courses, experiential exercises can be implemented successfully. Therefore, the purpose of this paper is to describe an experiential exercise incorporated in an introductory apparel merchandising course at a southwestern university called "Shadow Day."

The Experiential Approach

According to Wynd (1989, p. 64) an experiential approach to teaching allows students to experience the "challenges, frustrations, and joys of managing a business." Furthermore, Jackson and Morgan (1983) suggest that experiential exercises promote a realistic view of business decision making.

Experiential exercises are not new to higher education. In fact, experiential learning has been introduced in career planning (Kramer, 1988) in economics (Spencer and Eynde, 1986) and in the study of organizational behavior (Vardi, 1985). In marketing, however, the use of experiential exercises have only recently occurred (Czepiec, 1983). For example, Conant and Mokwa (1987) incorporated an exercise where students assumed the role of product managers utilizing the market auditing approach in the study of product markets. De los Santos and Jensen (1985) introduced consulting exercises that allowed students to solve real life business problems for local companies. And Czepiec (1983) introduced the mystery shopper technique to teach undergraduate marketing principles. Formerly, experiential exercises have been more widely used in other business areas such as management and physical distribution rather than marketing (Seitz, 1990).

Under the umbrella of marketing is merchandising, a vital component in the success of the four "p's" for traditional retailers. Retail merchandising implements marketing strategies with specific end results such as stock-to-sales ratios, percentage mark down, beginning of month stock levels, as well as store promotions, sales and so on. In the past, merchandising instruction provided the least opportunity for "hands on" learning; however, experiential exercises can flourish in such courses.

The Course

The course titled "Apparel Merchandising," is an introductory course open to primarily sophomores and juniors enrolled in the Merchandising, Fashion Marketing, or Fashion Design Programs. Students in all three programs were required to take the course as a prerequisite to other courses in their major area of study. The course provided an overview of the textile and apparel industry and included specific topics such as domestic and foreign markets, global sourcing, resident buying services, auxiliary services such as public relations agencies, retailing, and careers in the industry. The course was offered each semester including summer sessions and enrollment ranged between 50 to 60 students per section.

The Project

Given the importance of "hands-on" knowledge of retail merchandising, a "Shadow Day" program was developed as a part of the course requirements for the Spring semester 1991. This program created opportunities to spend several hours with individuals employed in some aspect of retail merchandising. The objective of the exercise was to increase awareness among students of "real life" merchandising and to expose students to different positions in the field.

Companies chosen to participate in "Shadow Day" represented different aspects of retail merchandising and included JC Penney (corporate headquarters), Mary Kay Cosmetics (corporate headquarters), Martha Foster Associates and Sam

Alexander & Associates (wholesale showrooms), Dillards, Caren Charles, Sears, Montgomery Wards, and FootAction, USA (corporate headquarters).

Once the companies' management agreed to participate, the number of students that they would handle per shadow day was determined, as well as the specific dates the students would come. The dates picked for shadow days were those in which the class was held throughout the week. To avoid any complications that might result when students were out shadowing retailers, the instructor worked with retailers to have the shadow experience on the same day each week so that all students would be available for class exams and guest lecturers. Also, to avoid scheduling difficulties and course conflicts, the shadow experience occurred over a three hour period rather than all day. Most retailers were able to accommodate two to six students per shadow day depending on the size of the organization and the employees available to participate. Also most retailers signed up for three to five dates throughout the semester in which to have the students.

Once enough "slots" were created for all the students enrolled in the class, a list was made of all the companies participating, the dates, and the number of students they could accommodate. This was done early in the semester but in enough time so that students knew their schedules for tests and so on for other courses. Students were not allowed to purposely sign up for a date on which a scheduled test was assigned in another class. In addition, if a conflict did occur for a student, it was the student's responsibility to trade their shadow day with another student. All students were required to sign up for one shadow day experience to receive the points for the exercise. They were not allowed to make up the experience nor were allowed to participate in more than one shadow day. If a student did not participate they received a zero.

Once all the students signed up for a shadow day, group leaders were selected for each group that went to the company for each Shadow Day so that roll could be taken. Since the instructor was not present, this selection process was necessary so that points could be assigned to students that attended. Also, a final print out of the dates and the students that were attending each Shadow Day were sent to participating companies so that they would know how many to expect each time. The final print out of all the students, the date of their shadow day, and the companies they were visiting were also sent to respective department chairs and to the administration so that they would be aware if any difficulties arose.

The shadowing experiences ranged from shadowing buyers in men's, women's, and childrenswear, fashion coordinators, store planners, catalog inventory control personnel, packaging experts, private label developers with JC Penney; incentives buyers, the Vice President for Marketing, and the Director for Strategic Market Development for Mary Kay Cosmetics; Department Managers, Area Managers, Area Coordinators, Visual Display Managers, and Store Managers with such retailers as Caren Charles, Montgomery Wards, Sears, and Dillards; the Human Resource Director, the Public Relations Director, and selected footwear buyers for FootAction, USA; showroom and manufacturers' representatives for Martha Foster Associates and Sam Alexander & Associates.

Evaluation

Throughout the semester, when students completed their shadow day they shared their experience with the class. By the end of the semester, all students completed their shadow day experience. At this time, students completed a questionnaire to evaluate their attitudes towards a career in apparel merchandising.

Instrument

The questionnaire was composed of four sections. Section I evaluated the attributes that students associated with a job in retail merchandising. A modification of the attributes used by Lagace and Longfellow (1989) in a study of attitudes toward sales careers were incorporated into this section. The attributes included frustration, prestige, glamour, hard work, high pressure, no challenge, low monetary reward, interfering with home life, insincerity, ethical practices, travel, personality is crucial, low job security, creativity, greediness, and long hours (**Table 1**). Students rated these attributes on a one to five modified Likert scale whereby five indicated strongly agree and one, strongly disagree.

A modification of Lagace and Longfellow's (1989) scale was also incorporated into Section II. Specifically, students were asked to rate their degree of agreement or disagreement with the statement,"I's prefer a nonapparel retail merchandising position when I graduate rather than an apparel retail merchandising position."

In Section III students rated their level of agreement or disagreement with statements that sought to determine the value of the experience. A modification of the Ganesh and Welch (1990) scale was incorporated in this section (**Table 2**).

Section IV regarding the students such as classification (i.e., Freshman, Sophomore, etc.) sex. Additional questions were included regarding work experience in apparel merchandising and included number of years employed, companies employed by and positions.

Results

General Characteristics

Fifty students completed the survey out of an enrollment of 57. Ninety percent of the respondents were female and fifty eight percent were enrolled in the merchandising program. Almost half (48%) of the respondents were juniors and almost a third (32%) were classified as sophomores. Forty percent of the respondents had an overall G.P.A. between 2.0 and 2.9 while 38 percent had an overall G.P.A. between 3.0 and 3.9 on a four point scale. Almost three quarters (72%) of the respondents had worked in retail merchandising for a number of companies primarily in sales position.

Attribute Association

Regarding the attributes that students associated with apparel merchandising positions, seventy percent of the respondents strongly agreed with the between "hard work" and retail merchandising (Table 1). Fifty four percent also strongly agreed with the association between the attribute "personality is crucial" and retail merchandising. Almost all (96%) agreed or strongly agreed with the association between "long hours" and retail merchandising while 76 percent associated "travel" with the career. "Creativity" and "high pressure" were also highly associated with retail merchandising - 86 percent of the respondents agreed or strongly agreed with these associations. The majority (80%) of respondents either disagreed or strongly disagreed with the association between "no challenge" and retail merchandising.

Table 1

Student Responses to Attribute Association with a Job in Retail Merchandising

N = 50

Attribute	SD	D	N	A	SA*
I associate a job in retail merchandising with:					
Frustration	8%	34%	36%	22%	0%
Prestige	2%	6%	52%	32%	8%
Glamour	2%	14%	40%	34%	10%
Hard Work	2%	4%	0%	24%	70%
High Pressure	2%	4%	6%	46%	40%
No Challenge	56%	24%	8%	2%	8%
Low Monetary Reward	6%	26%	38%	26%	4%
Interfering with Home Life	12%	14%	32%	36%	6%
Insincerity	18%	34%	30%	10%	8%
Ethical Practices	4%	22%	46%	26%	4%
Travel	2%	4%	10%	58%	26%
Personality is Crucial	4%	0%	4%	38%	54%
Low Job Security	4%	20%	34%	34%	8%
Creativity	2%	6%	6%	46%	40%
Greediness	8%	24%	48%	18%	2%
Long Hours	2%	2%	0%	46%	50%

Note: * SD - Strongly Disagree, D - Disagree; N - Neutral; A - Agree; SA - Strongly Agree

However, even with the high pressure and long hours, almost over half (54%) agreed with the statement preferring an apparel merchandising career.

Regarding the value placed on shadow days, the majority of respondents found that the experience improved their overall knowledge, decision making ability, vocabulary, performance in job interviews, and ability to ask questions in relation to retail merchandising careers (Table 2).

Table 2

Student Responses Regarding the Value of the Shadow Experience to Retail Merchandising

N = 50

Attribute	SD	D	N	A	SA*
Shadow Day helped improve my overall knowledge of retail merchandising.	2%	10%	2%	38%	46%
Shadow Day helped improve my decision making ability in retail merchandising.	0%	6%	20%	36%	38%
Shadow Day helped improve my retail merchandising vocabulary.	4%	12%	24%	46%	12%
Shadow Day improved by performance in job interviews.	4%	10%	22%	46%	16%
Shadow Day improved by ability to ask questions.	6%	4%	14%	48%	28%

Note: * SD - Strongly Disagree, D - Disagree; N - Neutral; A - Agree; SA - Strongly Agree

Discussion

As a result of the Shadow Day, students were brought closer to the realities of retail merchandising careers than what was provided solely in the text book. In previous discussions with students they desired such positions as buyers because of the glamour and travel. However, along with shadow day experience, "long hours," "hard work," "creativity" and "personality . . . " became attributes also associated with apparel merchandising careers. In discussions with students after the experience, some decided to choose an alternative career path in retail merchandising besides buying, to get out of retailing altogether or to stay in. However, a universal comment among all the students was that the experience further increased their understanding of the field as well as their ability to identify textbook information in action in the company they shadowed. Students also found the shadow day program beneficial because they worked primarily on a one-to-one basis with the individual. Questions of direct concern to their immediate experiences during the "Shadow Day" could be addressed. Students also commented about the opportunity to learn about actual practices in retail merchandising.

Another positive benefit of the experiential exercise was the establishment of the close

relationships with several company management teams in the apparel industry. As a result of the course activity, it was apparent that management was positive and looked forward to a continued relationship with the university regarding the education of students in this capacity. Industry also benefits from the opportunity to grow from the new ideas introduced by students about how to get things done.

There is one major cost to implementing such an experiential exercise, that is the cost tot he instructor regarding time involved. In most cases, instructors must devote their time to research, teaching and service. Locating companies, signing up students, informing companies and university officials takes time that must be ample to confirm activities. Ramocki (1987, p. 29) suggests that companies "must be properly screened to ensure they are enthusiastic and possess realistic expectations." However, given the results, it is apparent that the benefits of "Shadow Days" outweigh the costs to instructors and most importantly to students.

Marketing instructors can incorporate "Shadow Days" for other courses as well. For example, a "Marketings Principles" course would be ideally suited for a "Shadow Day" experience. Students could visit with marketing consultants, directors, managers, account executives and other personnel that are tied to marketing related careers. Furthermore, when conducting a "Shadow Day", instructors might consider soliciting the comments of those individuals that were shadowed to evaluate their response as well as improve on the program.

Future research might examine attitudes of intern students before and after the shadow experience to determine the impact of the experience. Moreover, since the shadow experience presented here only lasted three hours the impact may not have been as great as a full day's or a three month experience.

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MARKETING THE INTRODUCTORY MARKETING COURSE: AN ANALYSIS OF CHANGES IN THE "BUYERS'" PERCEPTIONS

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Abstract

The perceived importance to students at a major midwestern university of both the beginning marketing course and the marketing principles themselves was studied. Key differences were found with regards to the importance of various topics, with marketing and management majors usually rating topics higher in importance than accounting and finance majors.

Purpose

Most undergraduate business programs in the U.S. require students to take one course in marketing. This course -- usually titled as Introduction to Marketing, Principles of Marketing, or Fundamentals of Marketing -- is usually designed to provide an overview of several different topical areas of marketing deemed to be important from the viewpoint of the professor. How important are these topics to the students who are being exposed to them? How important are these topics to students who are closer to graduation? Are there differences between seniors and juniors with respect to the perceived importance of these marketing topics?

The purpose of this study was to begin to explore the perceived importance of the beginning marketing course and the marketing principles themselves. These attitudes were then compared with the attitudes of students immediately prior to graduation to determine if there were any differences.

Literature Review

Some research has been conducted on the attitudes and perceptions of undergraduate business students regarding the importance of the Introduction to Marketing course, and the importance of the principles themselves to their anticipated careers in business. A search of several data bases, including the American Accounting Association's Education Research Database, yielded only a few relevant articles for consideration by the authors. [See Totten and Cross (1991)].

Methodology

A questionnaire was developed for students enrolled in Introduction to Marketing at a major state university in the Midwest. Questionnaires were distributed in class to students in all six sections of Introduction to Marketing during April 1989 after roughly 90% of the time in class had been completed. Of the approximately 240 students enrolled, 175 or 72.9 percent were in class on the day the questionnaire was administered. It should be noted that the 240 reflects first day enrollments and, thus, does not adjust for subsequent withdrawals.

Students were asked to indicate the value of the course to their anticipated career and the relative importance of fourteen traditional topics covered in the Introduction to Marketing course. Students were then requested to indicate how often they expected to use the concepts in their careers and which topics they expected would be most and least useful. Demographic information including anticipated grade, major (declared or intended), sex, graduation date, and instructor was collected.

A similar questionnaire was administered at the same time to students enrolled in the senior capstone course. Business Policy is required of virtually all graduating Business students. Of the approximately 183 students enrolled in this course, 140 (or 76.5 percent) responded to the survey.

The students in each course were asked to rate the importance of the course and the concepts on a nine-point scale, which was then collapsed to a three-point scale for purposes of analysis. A score of 1 indicates "important" while a score of 3 indicates "unimportant". On the question of how often the student expected to use the concepts of marketing in her career, a score of 1 indicates "very often" while a score of 5 means the student expects to use the concept "very seldom". For questions requesting a rating of individual marketing topics, a rating of 1 indicates that the topic is "very important", while a rating of 5 means that the topic is "very unimportant".

Profile of Respondents

The breakdown of majors by course is presented in **Table 1**.

TABLE 1
FREQUENCY DISTRIBUTION FOR MAJOR, BY COURSE

	INTRO		STRAT	
Major	Frequency	Percent	Frequency	Percent
Accounting	45	26.0	19	13.6
Management	46	26.6	50	35.7
Finance	16	9.2	30	21.4
Marketing	24	13.9	41	29.3
Non-Business	42	24.0	*	0.0
	175		140	

* Only business majors can enroll in STRAT.

The number of male and female students was equally divided, with 87 men and 88 women responding in the Introduction to Marketing course (INTRO). Roughly two-thirds of the students anticipated receiving a grade of B for the course, with another 19 percent expecting to earn an A. About 62 percent of the students expect to graduate in 1990, with another 22 percent expecting to finish in 1991. In the Business Policy course (STRAT), there were 85 men and 53 women students. Two-thirds of the

students expected to earn a B in the course, while another 23 percent expected to earn an A.

Results

The concepts of marketing were rated as being more important than the introductory marketing course itself by both groups (**Table 2**). This was true across the board for all business majors. For the most part, STRAT majors rated both course and concepts higher in importance than did INTRO majors, with the exception of marketing majors (2.85 for INTRO vs. 2.98 for STRAT) for the course.

TABLE 2
MEAN RATINGS BY GROUP AND MAJOR

	Importance of the Course	Concepts	Freq. of Use
Groups, overall			
INTRO	3.82	3.39	2.62
STRAT	3.45	2.95	2.34
Majors, overall			
Accounting	4.50	4.23	3.17
Management	3.34	3.10	2.57
Finance	3.91	3.39	2.63
Marketing	2.92	2.04	1.58
Sign. at p <	.001	.001	.001
Majors, INTRO			
Accounting	4.58	4.29	3.16
Management	3.37	3.17	2.61
Finance	4.19	3.44	2.87
Marketing	2.85	2.11	1.61
Non-Business	3.95	3.43	2.57
Sign. at p <	.001	.001	.001
Majors, STRAT			
Accounting	4.32	4.10	3.21
Management	3.32	3.04	2.54
Finance	3.77	3.37	2.50
Marketing	2.98	2.00	1.56
Sign. at p <	.01	.001	.001

* Two-way ANOVA required exclusion of INTRO Non-Business majors.

There were significant differences among the majors, both within the two groups and overall (groups combined). Consistently, marketing majors rated both the concepts and the course higher in importance to their careers than did the other majors ($p < .01$). In fact, accounting majors consistently rated both concepts and course lower in importance (means ranging from 4.10 to 4.58) than did any other major.

In responding to a question inquiring how often they expected to use the concepts of marketing in their careers, STRAT students indicated a higher expected use than did INTRO students. Again, marketing majors consistently indicated more frequent usage of the concepts than did any other majors ($p < .001$), as one would expect. Accounting majors consistently indicated a neutral mean rating of usage ("Sometimes").

Both groups of students were also asked to rate the importance of fourteen key topics usually covered in the first marketing course. For most of the topics significant differences were found among majors in each group as well as among majors when the two groups were combined. Three marginally significant differences were indicated by two-way ANOVAs.

TABLE 3
MEAN RATING OF IMPORTANCE OF SELECTED MARKETING TOPICS BY MAJOR [INTRO STUDENTS (TOP) VS. STRAT STUDENTS (BOTTOM)]

Topic	Acctg.	Mgt.	Fin.	Mktg.
Marketing Environment	2.57 2.63	1.89 1.94	2.25 2.17	1.84d 1.66d
Strategic Planning	2.07 2.05	1.72 1.62	2.06 1.70	1.69b 1.56a
Marketing Research	3.04 2.95	2.35 2.43	2.87 2.90	1.81d 1.85d
Mktg Info. Systems	2.56 2.79	2.00 2.48	2.87 2.86	2.11d 1.98d
Consumer Decision Making	2.62 2.79	2.09 2.10	2.31 2.31	1.62d 1.66d
Organ. Buying Beh.	2.76 2.79	2.22 2.28	2.87 2.38	1.88d 2.00c
Market Segmentation	2.78 3.00	2.15 2.20	2.81 2.43	1.85d 1.71d
Product Life Cycle	2.69 2.79	2.33 2.14	2.56 2.24	2.19 1.80d
New Product Development	2.34e 2.42	2.13 1.94	2.62 2.21	1.50d 1.78c
Pricing Strategies	2.04 2.42	2.20 2.08	2.25 2.13	1.69b 1.78b
Distribution Channels	2.67 2.58	2.17 2.16	2.75 2.38	2.00c 1.98a
Promotional Strategies	2.64 2.58	1.93 2.00	2.50 2.38	1.42d 1.61d
Internat'l Marketing	2.57e 3.21	2.33 2.26	2.81 2.83	2.24 2.02d
Marketing Ethics	2.45 2.79	1.98 2.08	2.31 2.55	1.88a 1.85d

Notes:
- a - Sign. diff. ($p < .10$) within group
- b - Sign. diff. ($p < .05$) within group
- c - Sign. diff. ($p < .01$) within group
- d - Sign. diff. ($p < .001$) within group
- e - Sign. ($p < .10$) interactions between groups

Accounting students in the INTRO class rated (**Table 3**) pricing strategies and strategic planning as the most important topics (2.04 and 2.07 respectively), while they considered marketing research to be the least important

topic (3.04). Management majors rated strategic planning (1.72) and the marketing environment (1.89) as being the most important topics, while research was also considered to be the least important (2.35). Finance majors rated strategic planning (2.06) as the most important topic to their career, while three topics (research, marketing information systems, and organizational buying behavior) were rated as being least important (2.87). Marketing students picked promotional strategies (1.42) and new product development (1.50) as being most important, while international marketing (2.24) came in last.

In the Policy course (STRAT), accounting students considered strategic planning to be most important (2.05), while international marketing was rated last (3.21). Management majors picked strategic planning (1.62) first, and marketing information systems (2.48) last. Finance students opted for strategic planning (1.70) as their most important topic, whereas marketing research was considered to be the least important (2.90). Marketing majors also rated strategic planning (1.56) as being the most important, with international marketing (2.02) bringing up the rear.

Accounting students in STRAT had higher ratings for only four topics than those in INTRO. These four are strategic planning, marketing research, distribution strategies, and promotional strategies. STRAT management students rated only five topics higher than did INTRO management majors (strategic planning, product life cycle, new product development, pricing strategies, and international marketing). Finance students in STRAT had higher ratings for nine topics as compared to those in INTRO. Marketing students in STRAT had higher ratings for seven topics than those in INTRO. Two-way analysis of variance indicated that there were only two marginally significant differences between the two groups. New product development was rated significantly different between the INTRO and STRAT students: INTRO management and finance majors had lower ratings while INTRO marketing majors had higher ratings versus their STRAT counterparts. The second topic to be significant was International Marketing: STRAT accounting majors had lower ratings, while management and marketing STRAT majors had higher ratings than their INTRO counterparts.

There were significant differences among majors in the INTRO course for twelve out of fourteen topics. Marketing and management majors generally had higher ratings for all significant topics, except for pricing strategies, where accounting majors came in second to marketing majors. Complete analyses are found in Cross and Totten (1990) and Totten and Cross (1991).

When the two groups are combined, significant differences were found among majors from two-way analysis of variance (**Table 4**). For all fourteen topics, marketing students had the highest ratings, followed by management students. In most cases, accounting students had the lowest ratings of the four majors. Only one significant relationship was discovered between groups for Product Life Cycles. STRAT students rated the importance of this topic higher than did their INTRO counterparts. STRAT students had higher ratings than INTRO students except for Marketing Ethics.

TABLE 4
MEAN RATING OF IMPORTANCE OF SELECTED MARKETING TOPICS BY MAJOR (INTRO AND STRAT COMBINED) AND GROUP

Topic	Acct.	Mgmt.	Fin.	Mktg.	INTRO*	STRAT
Marketing Environ.	2.59d	1.92	2.20	1.73	2.18	2.00
Strategic Plann.	2.06c	1.67	1.83	1.61	1.97	1.68
Marketing Research	3.02d	2.39	2.89	1.84	2.54	2.43
Mktg Info. Systems	2.62d	2.25	2.87	2.03	2.44	2.45
Cons. Dec. Making	2.67d	2.09	2.31	1.64	2.18	2.11
Organ. Buying Behav.	2.77d	2.25	2.56	1.96	2.47	2.29
Market Segment.	2.84d	2.18	2.56	1.76	2.38	2.21
Prod. Life Cycle	2.72d	2.23	2.36	1.96	2.50a	2.15
New Prod. Develop.	2.36d	2.03	2.36	1.67	2.17	2.01
Pricing Strat.	2.16c	2.13	2.17	1.75	2.13	2.05
Distrib. Chann.	2.64d	2.17	2.51	1.98	2.43	2.21
Promo. Strat.	2.62d	1.96	2.42	1.54	2.06	2.04
Internat'l Mktg.	2.76d	2.29	2.82	2.11	2.49	2.44
Marketing Ethics	2.56d	2.03	2.47	1.87	2.14	2.21

Notes:
* Includes Non-business majors
a Significant, $p < .10$
b Significant, $p < .05$
c Significant, $p < .01$
d Significant, $p < .001$

When asked to indicate which topic would be most useful to them in their careers, INTRO accounting, management and finance majors chose strategic planning, while INTRO marketing majors chose promotional strategies and consumer decision making (**Table 5**).

TABLE 5
PERCENTAGE OF EACH MAJOR SELECTING TOPIC AS "MOST USEFUL" BY GROUP [INTRO STUDENTS (TOP) VS. STRAT STUDENTS (BOTTOM)]

Topic	Acctg.	Mgt.*	Finance	Marketing*
Marketing Environment	11.1% 5.3	13.0% 10.0	18.8% 10.0	7.7% 22.0
Strategic Planning	33.3 47.4	21.7 44.0	37.5 43.3	11.5 29.3
Marketing Research	4.4 5.3	2.2 2.0	0.0 3.3	7.7 4.9
Mktg Info. Systems	4.4 0.0	10.9 0.0	0.0 3.3	3.8 4.9
Cons. Dec. Making	2.2 5.3	10.9 2.0	6.3 6.7	19.2 9.8
Organ. Buying Beh.	4.4 5.3	4.3 2.0	0.0 6.7	3.8 2.4
Market Segmentation	0.0 0.0	2.2 4.0	0.0 3.3	0.0 0.0
Product Life Cycle	2.2 0.0	4.3 12.0	0.0 0.0	0.0 7.3
New Product Development	4.4 10.5	4.3 6.0	6.3 3.3	11.5 0.0
Pricing Strategies	11.1 15.8	8.7 4.0	25.0 3.3	0.0 2.4
Distribution Channels	4.4 5.3	2.2 4.0	0.0 0.0	0.0 2.4
Promotional Strategies	4.4 0.0	6.5 0.0	0.0 3.3	19.2 4.9
Internat'l Marketing	6.7 0.0	6.5 8.0	0.0 10.0	11.5 4.9
Marketing Ethics	6.7 0.0	0.0 2.0	6.3 0.0	0.0 4.9

* Sign. diff. ($p < .10$) between groups by major

INTRO finance majors also thought highly of pricing strategies. Marketing majors "saw the light" in STRAT, joining the other three business majors in choosing strategic planning as the most useful topic. Marketing majors also thought highly of the marketing environment as a useful topic. When comparing the choices for each major between the two groups, only two majors turn up marginally significant ($p < .10$): management and marketing. INTRO management majors' choices were more diverse, while STRAT students' choices concentrated on strategic planning. Likewise, INTRO marketing students' showed five popular choices, whereas STRAT students concentrated on the two topics mentioned previously. It is interesting to note that INTRO accounting and finance majors mentioned marketing ethics, whereas STRAT accounting and finance majors did not. The reverse was true for management and marketing majors.

Both groups of INTRO and STRAT students agreed, for the most part, that international marketing was the least useful concept (Table 6). International was the first choice for all INTRO majors except finance (who opted for marketing research). INTRO marketing majors also thought the product life cycle was equally least useful. All STRAT majors listed international first in this category. The product life cycle was second for accounting and marketing students, marketing research was second for management students, and research and information systems were tied for second for finance students.

TABLE 6
PERCENTAGE OF EACH MAJOR SELECTING TOPIC AS "LEAST USEFUL" BY GROUP [INTRO STUDENTS (TOP) VS. STRAT STUDENTS (BOTTOM)]

Topic	Acctg.	Mgt.	Finance	Marketing
Marketing Environment	4.4% 10.5	0.0% 4.0	0.0% 6.7	3.8% 9.8
Strategic Planning	2.2 0.0	0.0 2.0	0.0 0.0	3.8 2.4
Marketing Research	15.6 10.5	10.9 16.0	37.5 16.7	3.8 9.8
Mktg Info. Systems	2.2 5.3	2.2 12.0	12.5 16.7	7.7 9.8
Cons. Dec. Making	8.9 10.5	0.0 2.0	0.0 0.0	0.0 2.4
Organ. Buying Beh.	11.1 5.3	4.3 12.0	0.0 0.0	11.5 9.8
Market Segmentation	0.0 5.3	0.0 2.0	0.0 0.0	3.8 0.0
Product Life Cycle	6.7 15.8	10.9 8.0	12.5 6.7	15.4 12.2
New Product Development	2.2 0.0	4.3 2.0	6.3 0.0	0.0 0.0
Pricing Strategies	0.0 0.0	8.7 2.0	0.0 0.0	7.7 0.0
Distribution Channels	8.9 0.0	10.9 6.0	12.5 6.7	3.8 9.8
Promotional Strategies	2.2 10.5	2.2 2.0	0.0 3.3	0.0 0.0
Internat'l Marketing	22.2 26.3	28.3 20.0	18.8 33.3	15.4 14.6
Marketing Ethics	4.4 0.0	10.9 6.0	0.0 6.7	11.5 9.8

Discussion

The fact that marketing majors lowered their assessment of the importance of the principles course while other majors increased theirs would indicate that both groups were obtaining an understanding as time passed of the importance of all disciplines to all majors. The question then becomes how we, as professors, can convince students earlier of the importance of all disciplines, not just their chosen majors. This may mean that we need to make the INTRO course more relevant to non-marketing majors by bringing in more real-world examples and experiences.

Another concern is that marketing research was consistently ranked as one of the least important topics. This implies either uninspiring teaching or student dislike of numbers. When a professor teaches the INTRO course, there are some topics that are favorites and some that aren't. It's hard to be inspiring when talking about topics one doesn't find interesting or one doesn't feel qualified to discuss. We need to find ways to bring in enthusiasm for those "ho-hum" topics. Then, too, numerophobic students may be seeing marketing research as being pure statistics. The reality is that marketing majors cannot escape numbers. Professors may have to develop new ways of describing marketing research, so that students see the role of research as an information gathering and processing tool, feeding information into a company's information system and impacting on managerial decisions.

International marketing did not fare well in our study possibly because the coverage is often superficial. The topics assigned toward the end of the term including International Marketing often get short shrift as we start "running out of time." Then, too, many professors have not had training in this field and feel uncomfortable with the material. Again, seeking ways to make this topic more interesting is important. Perhaps contacting a colleague who is doing research in the area might yield some useful real-world experiences to share in one's classroom.

In light of this discussion, more basic, deeper questions come to mind. Are we giving our students what they want? Most likely. Are we giving our students what they need? Maybe not. This issue was raised recently at the 1990 A.M.A. Consortium on Enhancing Teaching Effectiveness. What is our mission as schools of business? Just how career-oriented should our teaching be? Are we training schools for businesses, giving our students just what they need in order to get jobs? Or are we supposed to be exposing them more to theories than just applications? As marketing professors teaching the INTRO course, how do we respond? Probably we should toughen our standards, deepen our coverage of the material wherever possible, and strive to help our students see the importance of interrelated disciplines. We also need to attract students to our major, and usually the first time a student is exposed to marketing is in the INTRO course. We need to encourage them to see and appreciate the possibilities that a major in marketing has to offer. If they choose to major in some other area of business, let's at least not turn them totally off to marketing; the subject is too vital in all areas of business to discourage interaction.

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THE MULTILINGUISTIC ABILITIES OF U.S. MARKETING MAJORS

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Abstract

A number of recent studies have centered on a variety of aspects associated with the importance of foreign language skills in international business. This study used a national sample of 832 marketing majors from 59 colleges and universities to determine their multilinguistic abilities. The results indicate Spanish and French remain the most popular languages when compared to previous studies. Italian, however, has increased in popularity while Japanese has shown marked decreases.

Introduction

One of the biggest changes in marketing and business in general over the last several decades has been the recognition of the increasing importance of international marketing. The U.S. market has become increasingly more competitive due to the entry of foreign firms. As a result, domestic businesses have found foreign markets more attractive and have been implementing strategies to enter them.

However, one of the largest impediments to international marketing has been finding American marketers who can speak foreign languages and operate comfortably in foreign cultures. The most important, and probably the most difficult, cultural component to master may be language (Cateora 1990).

The inability of most Americans to speak multiple languages has been a long-term problem. In 1980, the President's Commission on Foreign Language and International Studies, charged with studying American competence in foreign languages, called the problem scandalous and proclaimed it to be getting worse. They stated that "...our lack of foreign language competence diminishes our capability in diplomacy, in foreign trade, and in citizen comprehension of the world in which we live and compete. Americans' unwillingness to learn foreign languages is often viewed by others, not without cause, as arrogance" (President's Commission on Foreign Language and International Studies 1980, p. 12).

The study described in this paper explores the issue of language competence of undergraduate marketing majors. Since the importance of international marketing will probably continue to grow, more marketing majors will find jobs in companies conducting business with foreign firms. In order to be effective they will have to be able to speak foreign languages since every foreign business person cannot be expected to speak English. Several studies have addressed the issue of language skills for undergraduate business majors; however, none has used a large national sample as this study does. By using a national cross section of schools, we hope to provide a more comprehensive view of the multilinguistic skills of future marketers.

Literature Review

For international marketers, the ability to speak the host country language is essential for several reasons. First, if one cannot speak the native language, then the ability to move unobtrusively through the country is lost and reduces one's ability to immerse oneself in the culture. Anyone who has spent time in countries like Greece and Japan where the alphabets are different than ours will undoubtedly understand this problem. Reading street signs and menus is impossible. Without language skills, a total immersion in the culture is just not possible.

Second, doing business with foreign nationals is more difficult. Business people who cannot speak the native language must either rely on the foreign national's being able to speak their language, or they must use an interpreter, which can be both a hindurance and very time consuming.

Finally, an inability to speak the host language can create potentially devastating problems when communicating with foreign consumers. The biggest share of international business problems arise from language translations, particularly those used in advertising and promotion (Ricks 1983).

McDaniel and Smith (1987) surveyed 225 publicly held corporations to gauge their satisfaction with college graduates going into international business. They found that most corporations were dissatisfied with the language skills of those graduates. Over half of their sample (55.03%) considered basic language skills to be either fairly important or very important and deserving of more emphasis in college curriculums.

Since college and university curriculums have been deficient in linguistic development, American firms tend to emphasize language in

their training programs for future international business people. A recent survey of Fortune 500 business firms found that foreign language is the most heavily stressed aspect of training for employees serving both medium-term (3-11 months) and long-term assignments (a year or longer) (Burton 1990).

However, even with this increasing educational and training emphasis, it appears that American personnel do not have the foreign language skills possessed by non-American business people. American business people speak lower percentages of host country languages than non-Americans (Parker and McEvoy 1990). They also have lower rates of study before arrival in the host country than do non-Americans (Parker and McEvoy 1990).

An approach for increasing the length and rate of foreign language study is to emphasize foreign languages in the educational process. Until recently it appeared that the study of foreign languages had been decreasing in the U.S. (Aijo 1985). More recent data, however, suggests that during the late 1980's the study of foreign languages enjoyed a resurgence in the U.S. (McCullough, Tansuhaj and Ronarithivichai 1987).

During the 1980's, a number of colleges and universities began offering languages for specific purposes (LSP) courses. These courses stress specialized language development so that people entering fields such as engineering, business or medicine have the linguistic tools needed to interact with their foreign counterparts. An example of an LSP would be a course of Spanish for Business. Grosse and Voght (1990) found that 58% of the schools in their survey offered LSP courses and that Spanish, French, and German were the most common languages. They also found that business LSP courses were the most common, followed closely by education and nursing.

It also appears from the available research in this area that the languages studied by American international business students closely approximated those demanded by multinational corporations. Aijo (1985) studied the languages listed in advertisements for international business in several key publications. He found that in order of importance, Spanish, French, Arabic, German, Chinese, Japanese, Italian, Dutch, Portuguese, and Scandanavian were the most stressed languages in these ads. He also found that 38% of the positions required some knowledge of a foreign language.

McCullough, Tansuhaj and Ronarithivichai (1987) surveyed 98 international business students from two universities, one in the southwest and one from the northwest, to determine the extent of their foreign language skills. Spanish, French, German, Japanese, and Chinese were listed as the languages which students were studying the most. A majority of these students, however, indicated a desire to switch languages, with Japanese listed as the most desired choice.

In a slightly broader and more comprehensive study, Stone and Rubenfeld (1989) surveyed 306 students enrolled in business schools from five geographically dispersed public universities. Their purpose was to gauge the number of business students who enrolled in foreign language courses during college. They found that 24.2% of business students took foreign language courses during their college years. The numbers for marketing majors were somewhat higher than the average, in that 32.8% of marketing majors had taken at least one foreign language college class.

The Study

Our study is an extension of the McCullough, Tansuhaj and Ronarithivichai (1987) study except that we use a national sample of marketing majors. We were interested in determining whether the language pattern they found for international students in their two universities was representative of marketing majors across the nation. We wanted to broaden the sample to include all marketing majors, since many of them will be working for companies that have expanded or will expand into foreign markets in the future.

Sample

In order to obtain a national sample, thirty copies of a questionnaire were sent to 300 presidents of college AMA chapters during the spring semester of 1991. The presidents were asked to administer the questionnaire at one of their regularly scheduled Marketing Club meetings. A stamped return envelope was included in each packet along with a cover letter explaining the general purpose of the study and asking them for their cooperation.

Completed questionnaires were received from 59 chapters for an overall chapter response rate of 19.7%. The total number of usable questionnaires from these 59 chapters were 1,135, of which 832 (73.3%) were marketing majors. Since we were interested in foreign language choices of marketing majors, nonmajors were not analyzed in this study. Over half of the respondents (55.2%) for this study were seniors (see **Table 1**); 76.4% were from public state supported) schools; 51.5% were from schools with 10,000 or more students (see **Table 2**); and 96.1% were citizens of the U.S.

TABLE 1
SAMPLE CLASSIFICATION

Year	Frequency	Percent
Graduate Students	50	6.0
Seniors	459	55.2
Juniors	277	33.3
Sophomores	39	4.7
Freshmen	7	.8

TABLE 2
SAMPLE SCHOOL SIZE

Size	Frequency	Percent
Under 2,000	35	4.2
2,001 - 5,000	213	25.6
5,001 - 10,000	156	18.7
10,001- 15,000	207	24.9
Over 15,000	221	26.6

Study Results

Most of the marketing majors in the sample (69.5%) were at least "minimally proficient" in at least one foreign language. Multiple foreign languages were spoken by 14.2% of the marketing majors in the sample (see Table 3). These findings have some implications for multinational marketers. When marketing in areas where multiple languages are spoken, Europe for example, training will continue to be important. Personnel in these areas will need to speak several languages in order to be effective.

TABLE 3
NUMBER OF FOREIGN LANGUAGES SPOKEN BY MARKETING MAJORS

Number of Languages	Frequency	Percent
0	254	30.5
1	460	55.3
2	92	11.1
3 or more	26	3.1

The finding that 69.5% of marketing majors can speak and/or write at least one foreign language is encouraging. One of the authors once had the experience of interacting with a Korean in Spanish since this was a language they could both speak. Since both parties could speak multiple languages, they were able to find a common ground and communicate.

A total of 28 foreign languages were spoken by those in the sample (see Table 4). Spanish (38.6%) and French (25.6%) were the overwhelming favorites. They were followed by German, Italian, English, Japanese, Chinese, Hebrew, and Russian. English was counted as a foreign language only if respondents had declared themselves to be citizens of a foreign country.

TABLE 4
FOREIGN LANGUAGE CHOICES FOR MARKETING MAJORS
(N = 832)

Language	Frequency	Percent
Spanish	321	38.6
French	213	25.6
German	66	7.9
Italian	29	3.5
English (foreign students)	22	2.6
Japanese	14	1.7
Chinese	11	1.3
Hebrew	10	1.2
Russian	7	.8
Arabic	5	.6
Korean	4	.5
Norwegian	2	.2
Polish	2	.2
Urdu	2	.2
Vietnamese	2	.2
Gujarti (Indian)	2	.2
Portuguese	1	.1
Swedish	1	.1
Flemish	1	.1
Dutch	1	.1
Armenian	1	.1
Turkish	1	.1
Basque	1	.1
Thai	1	.1
Laos	1	.1
Greek	1	.1

The predominance of Spanish and French was not a surprising finding and is consistent with the study performed by McCullough et. al. (1987). The biggest surprises were associated with Italian and Japanese. In the McCullough et. al. study Italian was not spoken by any of the students in their sample, although it was listed as a language that students in the northwest would like to switch to in the future. In our study, it ranked fourth and was spoken by 3.3% of the sample.

Japanese, however, experiences a drastic drop when the two studies are compared. In the McCullough et. al. study Japanese was the fourth most spoken language; 8.0% of those in the southwest and 13.2% of those in the northwest had spent time learning it. It was also listed as the most popular language for future study. In our study, however, it was only spoken by 1.9% of the sample.

The differences in language choice rates in both Italian and Japanese in the two studies can be attributed to several factors. Time is obviously one potential factor. The samples themselves are another. The differences in Italian, in particular may be associated with sample frame differences. McCullough et. al. surveyed students in areas of the country which are not usually associated with large numbers of Italian-Americans. The drastic fall in rates of Japanese may be associated with time. It is an extremely difficult language to learn, which may be influencing some students in their foreign language choices. Also, "Japanese bashing" has been increasing in this country over the last several years (Smith 1990), and that social phenomenon may account for its reduced popularity.

Study Limitations

This study, like all research, has several limitations. The most obvious weakness is associated with the sample used in this particular study. Using Marketing Club members as the sample is a potential source of bias in that these members may be more motivated than the "average" marketing major. Also, since this questionnaire was sent to the chapters in the spring, no time was available for following up with additional mailings before the end of the school year.

An additional weakness of this paper revolves around the self-reported measures of foreign language proficiency. The questionnaire asked respondents if they were minimally proficient in any foreign languages and to list those languages. No attempts were made to objectively gauge their level of proficiency in those languages. It is possible, as it is with any self-reported item, that some of those that indicated that they were "minimally proficient" actually had a substandard grasp on a language. Future research should probably focus on the depth of foreign language proficiency of marketing majors.

Conclusion

Most marketing students in the U.S. (69.5%) can speak a foreign language. This figure is higher than previous studies performed on smaller samples have reported. Although the U.S. is probably still a very ethnocentric society, the rates associated with foreign language bodes well for the future of marketing. Students seem to be realizing that the days of expecting that all multinational business be conducted in English have passed.

The most popular languages with U.S. marketing majors are Spanish, French, German, Italian, Japanese, Chinese, and Hebrew. Although European languages tend to be the most popular, 26 different languages were identified in this sample of 832 marketing majors. Italian has increased as a language choice, and Japanese has shown marked decreases from levels reported previously.

Studies associated with foreign language choices of marketing students need to be conducted every four or five years so that trends can be identified. International marketing managers need to know which languages students are proficient in so that they can adjust their corporate training programs. Marketing academics also need to continue to stress the importance of learning a foreign language, since the importance of international marketing will probably continue to increase during the coming years.

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A LEGAL VIEW OF EXCESSIVE PRODUCT CONSUMPTION

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Abstract

Marketing efforts designed to promote increased product consumption by encouraging consumers to use more of the product per occasion may cause consumers to use products beyond a safe limit. When courts find that such overuse is foreseeable by the marketer, a person who incurs injuries resulting from this overuse can often recover damages from the marketer. This paper identifies different categories of product overuse and reviews the relevant case law regarding their product liability implications. Actions of both marketers and consumers are considered. The final section presents some recommendations that marketers can follow in order to reduce their product liability exposure.

Introduction

When product markets feature intense competition, firms are inclined to develop strategies to enlarge their market shares or to expand the overall size of the market. Kotler (1991, pp. 375-376) discusses three methods for accomplishing these strategies: (1) attracting new consumers to the product class, (2) promoting new uses for the product, and (3) convincing people to use more of the product per occasion. The logic underlying these strategies is intuitively appealing and generally ought to lead to a strengthening of the implementing firm's market position.

From a legal standpoint, however, each of these three approaches can create situations in which groups of consumers are exposed to unreasonable product-related dangers. By appealing to new consumer segments, the firm may attract buyers who are less able than current customers to understand either how to use an item or the subtle dangers associated with the product. By encouraging new but safe uses for a product, the firm may inadvertently spur consumers to try other unintended uses which turn out to be dangerous and harmful. By advocating increased product usage, the firm may unintentionally cause consumers to use products in excess of their safe limits.

This last issue is presented here in the context of current scholarly inquiry in marketing and consumer behavior regarding consumer tendencies to use products to excess. For example, researchers have begun to study the product acquisition and consumption patterns of persons who seem to lack control over their rate of product use (Faber and O'Guinn 1988; O'Guinn and Faber 1989). Analysts may, then, have identified a segment of the population which is particularly vulnerable to excessive product use due to their "lack of control" with regard to certain products or consumption conditions. In addition, some consumers seem to believe that "if a little of a product works; a lot will work better," resulting in intentional, but still dangerous, product overuse (Anderson 1990).

This paper examines the legal consequences of consumer injuries resulting from product overuse. The interests of both consumers and manufacturers/marketers are considered in terms of the kinds of marketing programs necessary to forestall consumer overuse of products and thus minimize the liability of sellers. Extreme forms of consumer misconduct that might constitute legal defense for marketers are also discussed.

A Judicial View of Product Overuse

Overuse of a product generally consists of using a product for its intended purposes in some manner beyond its safe capacity (Gardels 1978). For example, an avid sportsman purchased a "string silencer" for use with his archery bow and was injured when the silencer detached and flew into his eye (*Genteman v. Saunders Archery Co.* 1976). An Illinois appellate court upheld a judgment in favor of the silencer manufacturer, who claimed that the plaintiff had used the silencer many more times than would normally occur. Apparently, the silencer was intended to be used only during hunting, but Genteman had used it 40 to 60 times during target practice.

Overuse is thus a form of product misuse, but not in the conventional interpretation of this term Misuse is ordinarily considered to be an improper use of an item, e.g., using an anti-dandruff shampoo as a mouthwash. Overuse is a narrower concept, e.g., ingesting too many over-the-counter drug capsules at one time or taking it too frequently or over too long a time period. So overuse encompasses the notions of overly intense use and prolonged use-product use beyond its intended safe life. Exhibit 1 illustrates a temporal perspective of product overuse, and Exhibit 2 presents examples of product overuse in consumer and industrial settings.

As in most situations involving possible product liability litigation, both the marketer and the consumer can play important roles in minimizing product overuse. The seller has a legal duty to anticipate foreseeable product misuses by consumers and to take steps, e.g., warnings, protective packaging, package inserts, etc., to prevent consumers from using products for dangerously improper purposes. Beyond these precautions, the marketer must choose product designs which either preclude overuse or minimize the possibility that an item could be used in an abusive fashion.

Product overuse cases therefore involve an unusual form of "product defect." The product is essentially not defective under traditional guidelines because it is performing adequately for its intended purpose. The product is not broken, cracked, out-of-order, etc. In a sense, the problem is one of design because the product is configured in a way which allows it to be used in some extreme and dangerous manner. For example, a product could be used

in a manner which is too fast (*Ulrich v. Kasco Abrasive Co.* 1976), too long (*Gulf Power Co. v. Kay* 1986; *McCully, v. Fuller Brush Co.*, 1966) or too stressful (*Stewart V. von Solbrig Hospital, Inc.* 1974), based on its design. Since these uses, apart from their rates, are intended by the manufacturer, courts often consider them reasonably foreseeable. In such product misuse cases, resolution of the foreseeability question will determine whether the manufacturer has marketed a dangerously defective product, a key issue in determining responsibility for plaintiff's injuries (*Maguire v. Pabst Brewing Co.1986).*

Exhibit 1
A Temporal View of Product Overuse

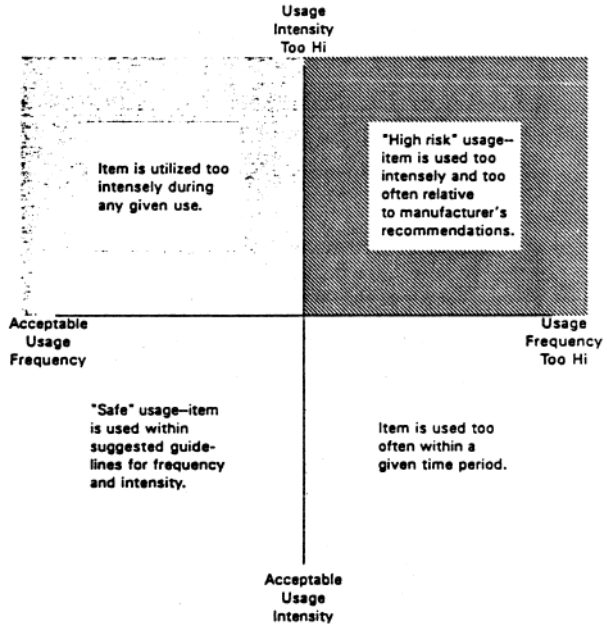
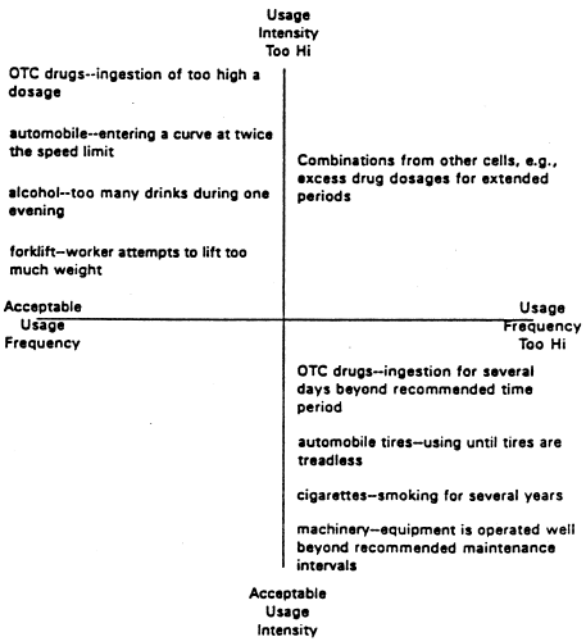


Exhibit 2
Examples of Consumer and Industrial Product Overuse



The outcome turns upon the perceptions of a reasonable consumer under the circumstances. Would he/she understand and appreciate the product's limitations and the dangers associated with usage in excess of those limitations (Ausness 1990; DeDominicis 1986; Palmer 1988)? The manufacturer/marketer's major considerations are the cost and feasibility of reducing the risk of overuse (Gardels 1978, p. 818). This reduction can be achieved either by proper manufacture/design (which includes sufficient safeguards) or adequate warnings/instruction.

Actions of the Marketer.

Ineffective warnings and instructions can make a product dangerously defective, thereby exposing the seller to product liability claims. In *McCully v. Fuller Brush Co.* (1986), a woman used a cleaning solution and, prior to its application, diluted it in water for several hours per instructions. Chemicals comprising the cleaning agent were harmful to the skin after prolonged exposure, however. As a result, her hands were severely burned. The court determined that the instructions which explained how to use the product were not sufficient to guarantee safe use. Further, the slogan "It's kind to your hands" was printed on the label attached to the product's container.

Cembrook v. Superior Court of San Francisco (1961) further illustrates that effective instructions and warnings can be central issues in overuse litigation. The plaintiff filed a complain seeking damages for personal injuries resulting from prolonged ingestion of Sterling Drug's (the real party in interest) Bayer Aspirin product. The plaintiff purportedly used the product in the manner recommended or suggested in the defendant's advertisIng. Sterling ultimately prevailed when a California appellate court upheld a jury finding that, among other things, product warnings were sufficient (*Cembrook v. Sterling Drug, Inc.* 1964).

In *McKay v. Upson-Walton Co.* (1963), a worker was killed by a falling hoist which was being used to lift almost twice its designed capacity. The weight capacity of the hoist was included in a catalogue, but this information was not attached to the hoist as either an instruction or a warning. The *McKay* court found that the defendant hoist manufacturer had fulfilled its duty to warn by printing a statement in the catalog about the machine's limitations, even though most operators would not have reason to see that publication.

Since the *McKay* decision, most courts have become increasingly protective of consumers' safety, especially in terms of the seller's duty to warn. For example, *West V. Broderick & Basic Rope Co.* (1972), a decision that dealt with a situation akin to McKay, the court determined that an informational tag which described a machine's performance capacity should have been attached directly to the machine. Thus the defendant was held responsible for the plaintiff's injuries, contrary to the result in *McKay.*

Both *McKay* and *West* involved experienced workers who were knowledgeable about the equipment which subsequently injured them. In general, such people are held to a somewhat higher standard of responsibility for their own actions than are consumers in marketplace. However, if the nature of the danger is supposedly commonly-known because of the widespread availability and use of a product, e.g., the gastrointestinal problems caused by excessive dosages of aspirin, simple warnings on package labels may suffice. This is particularly true if the warnings include an admonition to seek professional advice, e.g., consult a physician (*Torsiello v. Whitehall Laboratories* 1979; *Restatement* 1965, §402A, comment j). On the other hand, contemporary rulings seem to run contrary to *Torsiello* and recast the duty to warn as the defendant's responsibility, regardless of the nature of overuse possibilities (*American Home Products v. Johnson & Johnson* 1987). Such warnings must be adequate in a number of ways, including semantics as well as the physical characteristics.

More recently, the District of Columbia Court of Appeals affirmed in part, reversed in part, and remanded the case of *Payne v. Soft Sheen Products* (1985). In this case, a beautician's customer allegedly suffered second-degree burns as a result of using a permanent wave product. The trial court directed a verdict for the defendant. The appellate court, however, held that four jury questions remained: (1) whether there was adequate warning of the dangers associated with the ammonia component of the product; (2) whether manufacturer's alleged failure to warn of danger was the proximate cause of customer's injuries; (3) whether the beautician's failure to read the allegedly inadequate warning proximately caused customer injury; and (4) whether second-degree burns to customer's back arose out of beauticians improper use of product, out of use that could have been reasonably foreseen by the manufacturer, or out of product misuse. As of this writing, no additional information is available regarding the eventual outcome of this dispute.

In order to devise a proper warning, marketers must consider the environment in which consumers will use their products. In *Holloway v. J.B. Systems, Ltd.* (1979), a vacuum tank had changed ownership three times and had been modified to be used in a manner which the original manufacturer did no anticipate. The vacuum tank was originally built for gravitized discharge of its contents. By industry custom and practice, it therefore did not require a warning against other uses, including pressurized discharge. A subsequent pressurized discharge, unintended and allegedly unforeseen by the manufacturer, caused the vacuum tank to explode and injure the bystander plaintiff. Although the court denied recovery on the grounds of unexpected intervening circumstances, the manufacturer had to defend the action through trial and appellate courts. A simple warning on the tank might well have resulted in a directed verdict at the trial level.

In *Gardner v. Q.H.S., Inc.* (1971), a woman dozed off while waiting for her hair curlers to heat in a pan of boiling water. The water boiled away and the hair rollers melted and started a fire that destroyed her home. The court found that this chain of events was foreseeable by the manufacturer, who should have expected some people would leave the rollers to heat unattended. The defendant should have considered the risks inherent in the circumstances surrounding the likely uses of the product and provided warnings accordingly.

Vague warnings about usage situations also create problems, although the courts themselves are sometimes unclear about what constitutes a "vague" warning. For example, in *Fegan v. Lynn Ladder Co.* (1975), the manufacturer attached a warning to its product which stated, "A ladder is meant to carry only one person at a time-do not overload." Two painters used the ladder along with ladder jacks to erect a scaffold. When the ladder collapsed, the men suffered serious injuries. The court declared that the warning did not sufficiently apprise the men, both experienced painters, that such use was hazardous. On the other hand, in *Ulrich v. Kasco Abrasive Co.* (1976), an abrasive wheel used for sharpening and grinding carried the warning "maximum r.p.m. 6,000." Evidence was introduced that the workers using the wheel were quite experienced and therefore familiar with the hazards of rotating the wheel at too great a speed. Consequently, the defendant manufacturer prevailed when the workers admitted to operating the wheel at 9,000 r.p.m.

In a related case, *Strauch v. Gates Rubber Co.* (1989), the failure to warn about maximum performance standards led to manufacturer liability, even though the plaintiff was held 60% responsible for his personal injuries sustained when a defective anhydrous ammonia hose burst and ammonia escaped. Despite the fact that his employer had not complied with OSHA requirements for safe handling of the specific compound, the lack of information pertaining to the useful life (maximum performance) of the hose left the manufacturer responsible for the damages. (Another employee was held accountable for the remaining 20% of the problem.)

Consumer Conduct.

Consumers' conduct may lead to defense verdicts in product overuse litigation, provided that their behavior fits into either of two categories: assumption of the risk or unforeseeable misuse. The latter derives from comparative fault and contributory negligence doctrines. Assumptions of the risk requires that the consumer knowingly and willingly exposes him/herself to manifest product dangers, i.e., the consumer acts in a way that significantly increases the likelihood of a product-related injury. A common example involves persons of legal drinking age who become intoxicated and then harm themselves or others. Under most circumstances, courts hold such individuals responsible for determining their own "limits" for alcohol consumption. Thus, distillers and brewers would have no

liability for the conduct of individuals who drink excessively on one occasion (*Pemberton v. American Distilled Spirits Co.* 1984; *Maguire v. Pabst Co.* 1986). It also appears that such defendants have no liability to persons who drink regularly for many years (Aitken 1989).

It also appears, although such an issue has been contested only recently, that these defendants also have no liability to persons who drink continually over a lengthy period of time (Aitken 1989). In *Joseph E. Seagram & Sons, Inc. v. McGuire* (1991), three lawsuits centering on prolonged consumption of Seagram's spirits were consolidated for disposition. In each case, the trial court found for the defendant, but had been reversed and remanded upon appeal. The Supreme Court of Texas reversed the appellate judgments, stating:

> From ancient times, the danger of alcoholism from prolonged and excessive consumption of alcoholic beverages has been widely known and recognized... it is within the ordinary knowledge common to the community. Therefore, under the limited circumstances present in this cause, Seagram has no duty to warn or instruct of this particular danger arising from the prolonged and excessive consumption of alcoholic beverages.

Relatedly, comment j of the *Restatement* (1965) states that there is no duty to warn about the dangers associated with excessive consumption when such dangers are necessarily well known to and recognized by the public (Chetlin 1989).

The above cases can be distinguished from those in which consumers unwillingly or unwittingly used or were exposed to harmful products over prolonged periods, as in the plethora of lawsuits involving exposure to asbestos. Those plaintiffs did not know that asbestos was harmful and in many instances did not even know of their exposure. Thus, they could not possibly have assumed the risk of harm (*Conway v. A.C. & S. Co.* 1987; *Duty v. Abex Corp.* 1989; *Gulf Power Co. v. Kay* 1986; *Hammer v. Rosenthal Jewelers Supply Corp.* 1990; *Oakes v. Pittsburgh Corning Corp.* 1989: *Olson v. Owens-Corning Fiberglas Corp.* 1990).

Stark v. Allis Chalmers & Northwest Roads, Inc. (1970) further illustrates the fundamental elements of assumption of risk. The operator of a tractor equipped with a front-end loader drove the tractor at high speeds while carrying too much weight in the loader. The tractor overturned and crushed the operator, an experienced worker who had been warned by a fellow employee about the dangers of overloading the machine. The driver assumed the risk by knowingly and deliberately acting carelessly, thereby exonerating the defendant tractor manufacturer.

The second doctrine, unforeseeable misuse, may also shift the responsibility for product-related injuries from the marketer to the consumer. In (*McCurter v. Norton Co.* 1968), the plaintiff, a veteran machinist, operated a grinding wheel at an excessive speed. The wheel disintegrated, causing his injuries. Evidence showed that he had simply "estimated" the operating speed of the grinding wheel, which had a maximum r.p.m. rating of 2,545, although the machine itself could rotate as fast as 18,000 r.p.m. Since the plaintiff should have known better than to have estimated the speed rather than measure it, the defendant successfully invoked a product misuse defense.

A plaintiff consumer who used a geologists' hammer to break larger rocks into smaller samples recovered, however, in *Singer v. Walker* (1972). The manufacturer provided testimony that an expert would not fracture rocks with such a small hammer. Nonetheless, the court held that a reasonable (non-expert) person would not possess such knowledge; hence, the plaintiff's misuse was foreseeable. The hammer manufacturer should have provided a warning against such use.

Some legal commentators have raised the question of whether, as a matter of law, consumers can be held to have assumed certain product-related risks or even have misused products in some ways (Favis 1989; Madden 1987). No design change would eliminate the hazards posed by the geologists hammer in Singer, but a proper warning would insulate the manufacturer from liability for the "unavoidably unsafe" feature. Other such problems lead to more difficult questions which raise sensitive public policy issues involving consumer choice and reasonable expectations of product safety.

Recommendations for Marketers

A summary of pertinent case law and related recommendations appears in Exhibit 3. The common theme is that marketers must consider not only the intended uses of their products, but also how people will actually use (and misuse) them. As the exhibit and above discussion indicate, sellers must consider a number of specific issues (because they could subsequently be reviewed by courts) as they attempt to forestall product overuse by consumers. These issues are now summarized briefly in a time-related sequence, from product design, through product warnings, into the marketplace.

Initially, the firm must decide if it can "design away" the potential for overuse without eliminating some of the benefits the product is intended to provide. For example, can guards or supplemental devices prevent the product from being used to excess? Does the product's overall design encourage safe use, or might some consumers mistakenly overuse the product? Are the controls and switches located correctly relative to typical hand-eye movements and in a fashion similar to corresponding controls on other products? Essentially, the task is to make the product "user safe" and workable (Nussbaum and Neff 1991).

Exhibit 3

Implications Drawn from Case Law

	Implication	Case
1a.	Plaintiffs who overuse products in violation of instructions may still recover if the associated warnings do not convey a sufficient sense of danger.	*McCully v. Fuller Brush Co.* (1966)
1b.	Advertising slogans and other forms of promotion may offset the effects of moderate warnings.	*Cambrook v. Superior Court of San Francisco* (1961)
2a.	The marketer's duty to warn users about dangerous product overuse situations has expanded considerably in the last 20 years.	*McKay v. Upson-Walton Co.* (1963)
2b.	Whenever possible, warnings about potential product overuse must be physically attached to products or to their containers.	*West v. Broderick & Basic Rope Co.* (1972)
2c.	Warnings about potential product overuse must be presented in a manner which directly communicates with the ultimate users of products.	*Payne v. Soft Sheen Products* (1985)
3.	The complete environment within which the product is used (and possibly overused) by the consumers must be anticipated by the marketer.	*Holloway v. J. B. Systems, Ltd.* (1979)
		Gardner v. Q.H.S., Inc. (1971)
4.	Warnings which fail to state specific, maximum performance standards may be found to be inadequate.	*Ulrich v. Kasco Abrasive Co.* (1976)
		Fegan v. Lynn Ladder Co. (1975)
		Strauch v. Gates Rubber Co. (1989)
5a.	If the manufacturer should have foreseen the dangers and the product could feasibly have been made safer, assumption of risk will not be an effective defense.	*Joseph E. Seagram & Sons, Inc. v. McGuire* (1991)
5b.	If the product's danger is evident via warnings, a consumer who knowingly and voluntarily uses it cannot recover.	*Olson v. Owens-Corning Fiberglas Corp.* (1990)
5c.	If the product's danger is known to the general public or community at large, a consumer who knowingly and voluntarily uses it cannot recover	*Stark v. Allis Chalmers & Northwest Roads, Inc.* (1970)
		Torziello v. Whitehall Laboratories 1979)
6a.	The manufacturer's ability to foresee the misuse and prevent unreasonable risks must first be considered.	*McCurter v. Norton Co.* (1968)
6b.	The consumer's awareness of the safe use of the product will then be examined.	*Singer v. Walker* (1972)

As a part of the product design stage and as a prelude to developing product warnings, marketers should consider the psychological foundations of product overuse. Perhaps a product's design encourages intentional overuse: If one insect fogger is guaranteed effective, then two foggers will be sure to eliminate all insects. The problem is that exposure to two foggers could also be harmful to humans (NYLJ 1990). Can a warning be written and presented in such a way to discourage this kind of overuse?

Researcher have also learned that some product misuses are related to "action slips," usage errors due to a variety of personal and environmental factors (Heckhausen and Beckmann 1990; Norman 1988). Product design decisions should take into account these various behavioral tendencies as their implications increasingly become understood. Product warnings must also be constructed to reflect these human fallibilities.

Relatedly, some consumers face both physiological and external pressures regarding aspects of their consumption behavior. For example, certain products are addictive (Schwartz 1989) and others have taken on cultural symbolism (Belk, Wallendorf, and Sherry 1989; Wallendorf and Arnold 1991). Excessive consumption can result in both situations. Schwartz (1989) argues that warnings and usage instructions are of little help in minimizing consumption of addictive products because of the powerful effects of the addiction. The only remaining solution, if the consumption of these products is to be minimized, is to ban them because the addictive properties are an integral part of the design of these products.

Product overuse considerations can, therefore, readily escalate to the public policy level from the combined impact of a few lawsuits. As marketers review their offerings for possible overuse, they must keep this broader perspective in mind as well.

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The Commercial Piracy of Intellectual Property

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Abstract

This paper looks at the growing problem of intellectual property theft in terms of the direct damages it inflicts on an economy but also the less obvious injury inflicted on reputation. Reasons for the growth of intellectual property piracy are reviewed along with current countermeasures to stem the tide.

Introduction

The commercial piracy of intellectual property or product counterfeiting severely impacts the economy of the United States in terms of forgone royalty dollars and lost jobs (Ablondi, Koenig and Olexy 1990). The problem of intellectual piracy has both a micro and macro marketing dimensions. The former considers active strategies employed by the firm to safeguard its intellectual property, the latter looks at the legislation enacted in defense of intellectual property, or as in the focus of this paper, efforts to persuade trading partners to adopt anti-piracy measures voluntarily.

Generally, the method employed by the United States to secure trading partner cooperation has focused on multilateral trade negotiations such as the General Agreement on Tariffs and Trade (GATT). Evolution of the GATT negotiations, currently in the so-called Uruguay Round, have shifted attention to world-wide agreement on standards for intellectual property protection and away from original concerns with tariffs. The potential importance of agreed standards is illustrated by the estimate that effective international intellectual property protection could result in an increase in the royalty payments paid to American firms of $160 billion, using 1989 as a base year (Feinberg and Rousslang 1990).

Intellectual Property Protection

Commercial piracy includes such practices as the unauthorized copying of patented inventions, copyrighted works, or trademarks (Harvey 1988), (Rozek 1987). Commercial piracy victimizes not only well known branded products such as Apple and IBM computer hardware, but also products as disparate as medical equipment, industrial goods, agricultural implements, drugs, shampoo, brake linings, bolts, liquor, sunglasses, basketballs, fire doors, mannequins and credit cards. Other activities that would constitute product piracy include illegally selling video games, counterfeiting designer jeans, copying software programs, reverse engineering of electronic chips, home taping of records and movies, photocopying books or manuals, and illegally taking satellite signals (Globerman 1988).

Domestically American firms protect their investment in intellectual property from allegedly infringing imports before either or both of two tribunals: the federal district court, pursuant to the usual intellectual property legislation and common law; and the United States International Trade Commission, pursuant to Section 337 of the Tariff Act of 1930 (Thomas 1989).

The Ravages Of Intellectual Piracy

A number of diverse organizations have reported on the effects of inadequate intellectual property protection. A brief sketch will suffice to illustrate the seriousness of the problem (Bush, Bloch & Dawson 1989). The United States Commerce Department has estimated that the U.S. suffers annually lost sales to piracy amounting to approximately $ 6 to 20 billion dollars, resulting in employment losses of from 130,000 to 750,000 jobs. Likewise, the European Economic Community has estimated that 2 percent of all world trade is trade in pirated goods; while the International Chamber of Commerce paints a more distressing figure closer to 5 percent (Pegram 1990). The International Anti-Counterfeiting Coalition has estimated that sales of pirated goods world-wide amounted to $ 60 billion in 1984, and that 15 percent of the U.S. trade deficit represents purchases of pirated goods.

Impact on the American Economy

In 1987, the United States International Trade Commission (1988), at the request of the United States Trade Representative, undertook a comprehensive investigation to examine the effect on the businesses of United States producers in the year 1986 by counterfeited products, produced in countries affording minimal or no intellectual property protection to U.S. products. The Commission was charged to develop specific estimates of:

1) Lost sales to domestic producers caused by infringing imports;
2) Lost sales to domestic producers in export trade;
3) Losses from royalties and other fees;
4) United States employment losses;
5) The costs associated with diligently identifying infringements to and enforcement of intellectual property rights; and,
6) The effect on legitimate revenues and profits by counterfeiting sales.

Lacking reliable secondary sources, the Commission mailed questionnaires to 730 companies, including all the companies listed on the Fortune 500. Four hundred thirty of the questionnaires were returned. On the basis of these questionnaires, the Commission came up with the following findings:

* Two hundred sixty-nine firms reported that intellectual property was more than nominally important to their businesses; and of these, 245 reported that 80 percent of their sales were directly affected by intellectual property rights.
* Aggregate world-wide losses as a result of inadequate protection of intellectual property were estimated by questionnaire respondents to be $ 23.8 billion, or 2.7 percent of the sales affected by intellectual property rights. The largest losses were reported in the scientific

and photographic goods industry, followed by the computer, electronics, motor vehicles and parts, entertainment, and pharmaceuticals industries.

* The most commonly cited components of world-wide losses reported were lost revenues from fees and royalties, followed by reduced profit margins, domestic sales displaced by infringing imports, damage to reputations, and businesses never attempted abroad.
* Infringing imports were reported to have cost 64 respondents questioned $ 1.8 billion, with the largest losses reported in the industrial and farm equipment industries, followed by the electronics, and textiles and apparel industries.
* Questionnaire respondents reported lost export sales as a result of inadequate intellectual property protection abroad to be $ 6.2 billion, with the greatest losses reported in the motor vehicle and parts and electronics industries.
* Forty-three of the questionnaire respondents reported a total of 5,374 jobs lost as a result of inadequate intellectual property protection abroad, with 50 percent of the losses reported in the computer software and chemicals industries;
* One hundred twenty-two firms cited 54 countries as having inadequate patent protection, with Mexico, Brazil, Taiwan, Korea and Japan most commonly cited.
* Questionnaire respondents accounting for 53 percent of total reported sales indicated that the success of their businesses would improve moderately to very greatly in an environment of ideal intellectual property protection.

Indirect Damages of Intellectual Piracy

In addition to lost sales and lost jobs, the inadequate protection of intellectual property harms legitimate producers of goods and society in other ways. Firms expend great amounts of money and effort in building brand loyalty and buyer goodwill which is adversely affected by counterfeit products (Harvey 1988). Adverse publicity in turn can destroy brand reputation, and lead, potentially, to lost sales. Ultimately, the burdens of inadequate protection of intellectual property are born by society. Consider the following examples. The cause of 14 airplane crashes has been attributed to counterfeited airplane parts. The American Medical Association, discovered and reported the sale of counterfeited heart pace makers to unsuspecting hospitals for patient implantation. Also, internal bleeding in 1984 caused by counterfeited birth control pills forced the recall of 1.26 million pills in 1984 by the producer of the legitimate product. The producer was forced to bear not only the costs of the recall, but also the costs of attendant litigation. Finally, there is the unfortunate experience and effect on Kenya and Zaire of the inadequate protection of intellectual property. Each lost two-thirds of their cash crops in one growing season after their farmers unwittingly used defective counterfeited fertilizers on their fields (Bush, Bloch & Dawson 1989).

Causes for Increased Product Piracy

Beyond sheer avarice, commercial piracy has increased in recent years for several reasons (Bush, Bloch & Dawson 1989), (Harvey 1988).

One often cited reason is intensified international marketing efforts, which are the result of the explosion in high-technology communications. Marketing efforts in turn have led to global demand for well-known, American products.

Coupled with greater international promotion has been a marked increase in the level of sophistication of organizations that counterfeit -- analogous to the level of sophistication associated with organized crime. Greater expertise has resulted in increasing numbers of pirating schemes designed to elude detection by law enforcement agencies in either the counterfeiter's or the legitimate producer's market.

Also, increased technological capabilities, combined with low wages and a lack of strict legislation for the protection of intellectual property, have made it economically attractive for less developed countries -- sometimes seemingly as a result of national industrial-development strategy -- to produce counterfeited products, increase export capabilities, and gain toe-holds in world markets.

Intellectual Piracy Countermeasures

The International Anti-Counterfeiting Coalition, formed in 1978, is an attempt to combat intellectual piracy through an inter-organizational approach. Composed of producers, investigators and attorneys, it primarily attempts to influence legislators to enact strict piracy legislation. Further, because of the perception that intellectual piracy is a "victimless" crime, affected organizations have also banded together to inform the public of the moral wrong of product piracy and the economic costs such activity imposes on society in general.

The "Thou Shall Not Dupe" Campaign of the Association of Data Processing Service Organization is one example. Other strategies emerge when a domestic firm exercises significant leverage over a foreign infringer. It can negotiate royalty payments; or, it may engage in a "sting" operation to lure the foreign counterfeiter into the reach of U.S. intellectual property law.

Finally, Harvey (1988) suggests that corporations formulate specific strategic plans to proactively combat product piracy. The corporation must first enlist in the effort the help of personnel from every functional area of the organization -- from persons performing research and development to executives charged with monitoring the firm's product lines for potential counterfeiters. Then, it must formulate and execute a "Schedule for Responsible Action" to address the problem throughout all its various phases.

Remedial Legislation

Hoffman, Marcou & Murray (1989) note that, to augment existing legislation and the common law, the United States has enacted a variety of recent legislation designed to protect intellectual property:

* The Trademark Counterfeiting Act of 1984 declares that product piracy is a crime, with jail terms and fines for convicted offenders; that offenders must pay treble damages as well as attorney fees; and that pirated goods may be seized without notice;

* The Caribbean Basin Recovery Act of 1984 requires the President to evaluate a country's protection of intellectual property before allowing it tariff protection;
* The Semi-Conductor Chip Act of 1984 affords to the creator of a mask work for 10 years control over its reproduction, importation, distribution and sale;
* The Trade and Tariff Act of 1984 authorizes the President to impose import restrictions on countries which provide inadequate protection of intellectual property; and,
* The Omnibus Trade and Competitiveness Act of 1988 simplifies proceedings and requirements under Section 337 of the Tariff Act of 1930. It also requires that the United States Trade Representative initiate accelerated investigations of countries that provide inadequate protection of intellectual property, or that deny market access to U.S. producers which rely upon intellectual property protection.

Securing International Co-operation

The United States prefers combatting the piracy of intellectual piracy internationally, according to Hoffman, Marcou & Murray (1989), by attempting to persuade trading partners to adopt measures of protection themselves. Several approaches have been used:

Economic arguments. The United States and other developed nations argue that if the less developed nations are patient, the long-term benefits that accrue to the nation which affords intellectual property will surpass the short-term costs of instituting that protection and complying with international protection schemes. Less developed nations, on the other hand, argue that intellectual property protection allows the property right holder to charge high prices for and place restrictions on the use of ideas. These prevent the less developed nations from gaining access to new technologies, thus preventing them from modernizing. The developed nations respond that unlawful transfers of intellectual property are not accompanied by the essential training and experience that accompanies legitimate transfers; therefore, harboring piracy cannot contribute to modernization. Bolstering the argument of the developed nations even further, in an economic study that examined the economies of Argentina, Brazil, India, Mexico, the Republic of Korea, Singapore and Taiwan, cited by Hoffman, Marcou & Murray (1989), it was determined that a .6 percent increase in Gross National Product, in the worst case, was all that was needed to offset the economic dislocation of eliminating product piracy.

Trade pressure. Foreign nations often do not undertake intellectual property protection with respect to American goods until trade sanctions are threatened or actually instituted. Trade pressure is most effective when counterfeited goods account for a large percentage of a nation's exports to the United States. Possible sanctions include a denial of generalized system of preferences benefits, and, import restrictions pursuant to Section 301 of the Trade Act of 1974.

Provision of direct benefits. In exchange for intellectual property protection the United States has granted direct economic benefits to nations. This approach, however, has been disfavored. Some have suggested a variation of this in which individual firms, under the auspices of a program administered by the United States, make direct investment themselves in nations which afford such protection.

Bilateral trade agreements. The effectiveness of this approach is limited and the United States position weakened when the U.S. does little trade with its potential partner or when it provides it little economic aid.

Multilateral trade agreements. The United States has increasingly attempted to gain world-wide trade agreement through multinational treaties such as the General Agreement on Tariffs and Trade. And, for the first time, GATT, during the current Uruguay Round negotiations, is attempting to incorporate within the existing treaty provisions for the protection of intellectual property.

Implementing Intellectual Property Agreements

Hoffman, Marcou & Murray (1989) have identified several factors which have made world-wide protection of intellectual property through multinational treaties particularly difficult. First, the main components presently existing for the international protection of intellectual property -- the World Intellectual Property Organization, a specialized agency of the United Nations; the Berne Convention and Universal Copyright Convention copyright agreements, and, the Paris Convention patent agreement -- do not provide for powers to enforce intellectual property rights, or mechanisms to settle intellectual property disputes among contracting parties. Another factor which impacts the effectiveness of these agreements is the low level of participation in any one of them. Instead of providing for a set of rules applicable to all the contracting parties, they typically provide for "national treatment." National treatment provides that each party to the agreement will afford to all the other parties the same level of intellectual property protection it affords to its own nationals. This results in various levels of intellectual property protection and various levels of enforcement among the signatories of the same agreement. But perhaps the largest obstacle to effective international protection is the low level of commitment by the less developed nations in the effort. As mentioned previously, the less developed nations simply do not agree with the economic argument of the developed nations that the benefits which accrue to a nation that provides protection outweigh the costs of restricting access to information and technology. They therefore balk at expanding the little existing protection they afford.

The Uruguay Round of the GATT

For the first time in its long negotiating history, GATT is seeking to gain agreement on the protection of intellectual property because the members of GATT realize that in this vital area of world-trade, the original agreement in affording no protection is deficient. The United States' objectives for this part of the current negotiations include gaining agreement under GATT for providing (Murphy 1991):

* Protection for all types of intellectual property;
* Effective measures for the enforcement of intellectual property rights; and,
* Effective intellectual property dispute mechanisms.

According to Searing (1990), the United States estimates that agreement on the Trade Related Aspects of Intellectual Property Rights could result in an increase in the foreign royalty payments paid to domestic producers in 1989 of $ 160 billion. Particularly benefited by agreement would be the pharmaceutical, high-technology and publishing industries.

Anticipated Developments

Agreement in the international arena on intellectual property protection will be difficult (Hill 1990). Contentious issues separate the developed nations from each other and separate the developed nations from the less developed. The developed nations primarily disagree on issues concerning copyright and geographical indications. In the area of copyright, the United States argues that agreement must be limited to enforcing the economic rights conferred by copyright, not the moral rights -- the right of the creator to control the presentation of his work. On the other hand, the European community is very concerned with geographical appellations of origin. Switzerland desires agreement on protection against the unauthorized use of the appellation "Swiss Made," while other European community members desire agreement on protection for appellations for wines. Thus, they seek to recapture exclusive use of the appellations "burgundy," "Chablis," "cognac" and "champagne."

There are more fundamental issues which separate the developed from the less developed nations. First, the less developed nations argue that the results of the negotiations on the protection of intellectual property should be administered outside of GATT, preferably within the World Intellectual Property Organization of the United Nations. The developed nations point to the historical ineffectiveness of existing intellectual property agreements and instead insist that to ensure effective remedies for failure to live up to GATT responsibilities, GATT must administer the results. Second, because the less developed nations have taken the position that GATT does not have competency in all the intellectual property issues that have been raised, they argue the protection proposals of the developed nations are too detailed. Adopting a nationalistic, as opposed to an international view, they argue these proposals take from them control over the intellectual property laws within their own nations -- control they insist is necessary to ensure individual economic development.

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THE FOREIGN CORRUPT PRACTICES ACT REVISITED: LAWS TO IMPROVE GLOBAL MARKETING PRACTICE

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Abstract

The post Watergate environment called for prohibition of bribes and gifts as a method of influencing business and government decisions in the U.S. and abroad. The Foreign Corrupt Practices Act (1977), was passed to better define appropriate ethical and legal behavior, limiting sales fees or bribes to low ranking government officials and mandated financial reporting of such fees. Non-compliance could result in $1 million corporate fines and $10,000 plus five years in jail for the individual. Despite fears of U.S. company non-competitiveness, U.S. exports to "bribe prone" countries increased more rapidly than "non-bribe prone" countries. A General Accounting Office Survey (1981) found little evidence of lost business. The issue of moral imperialism, forcing U.S. standards on others, remains unresolved, with only Sweden passing similar legislation. The Omnibus Trade Act (1988) was passed to clarify several issues and allowed transaction (facilitating) bribes. Case law has also strengthened the legislation, allowing competitors to sue for lost business, if bribery swayed the contract. Enforcement responsibility has been extended to all companies.

Introduction

In the emotion charged Watergate scandal days and the ensuant discovery of financial, moral and ethical wrong-doing, American public opinion called for the greater codification of U.S. legal and moral standards governing the conduct of business. Discovery of illegal contributions to the 1972 Nixon presidential campaign, laundering of bribery money through foreign banks to avoid U.S. financial reporting requirements, and direct payments to foreign government officials to gain unfair advantage in bidding for government contracts led to more stringent requirements in financial reporting and attempts to better define the difference between bribery and sales fees. Passage of the Foreign Corrupt Practices Act (FPCA) of 1977 represents American attempts to codify and clarify U.S. ethical and financial reporting standards and prescribe specific penalties and sanctions for wrong-doing in these areas.

The purpose of this paper is to revisit the provisions of the FCPA, elaborate the concerns expressed by the U.S. businesses at the time of its passage, examine its impact in retrospect, and enumerate the changes made in the FCPA through case law and passage of further legislation.

The FCPA was passed in 1977 as an amendment to the Securities Exchange Act of 1934 (Meycrowitz,1987). The FCPA makes it unlawful for any American firm to promise, offer or pay anything of value to any foreign official for the purpose of obtaining or retaining business (Bottiglieri,1991). In addition, the FCPA requires corporations to keep records and accounts which reflect the transactions involving assets of the firm in reasonable detail. Firms must also establish internal accounting controls to provide assurance that transactions are executed in accordance with management's general or specific authorization. Corporate records and controls must reflect and record the wishes and behavior of management.

The ethical considerations of bribery and grease payments have long been the source of controversy since the enactment of the FCPA. In some instances, foreign contracts have not always been won on the sole basis of the merit of the products and companies trying to sell them, but sometimes on the basis of whom can (and will) personally benefit, such as government or corporate officials. The competitive system of capitalist economics was being undermined.

While bribery has been regarded as both illegal and immoral in the United States, some argue that this is a function of our culture and attempting to inject our alleged beliefs and value structures into the international business arena was not our place.

Outcry from the business community postulated that the FCPA would be disastrous to American competitiveness overseas. Bribery, some business people claimed, is customary and often necessary to obtaining business in many countries (Shaw, 1988). Many consider bribes to be part of the cost of doing business in a foreign country. Corporations claimed that they were losing foreign business contracts to other countries where bribery is considered part of the game. Others nervously avoided export markets, fearing they would inadvertently violate the law (Longnecker, 1988). America's ability to compete in international markets has been a major concern of both legislators and businesses since enactment of the FCPA.

Can America Compete?

It is impossible to measure how much business has or has not been lost due to passage of the Foreign Corrupt Practices Act in 1977. Some studies have shown that the FCPA may have had very little real impact on America's ability to do business abroad. Reports from the General Accounting Office (GAO) in 1981 indicated that less than

one percent of 250 businesses surveyed experienced serious losses resulting from the FCPA. A 1983 study showed that U.S. exports to bribe-prone countries have increased faster than exports to countries that are not considered bribe-prone (Graham, 1983). The conclusion: Bribery may not be a key or effective competitive tool. A second possible hypothesis is that perhaps bribery continues to flourish in spite of the Foreign Corrupt Practices Act.

The word "bribery" itself does seem to pose some of the difficulties on this issue. Within American culture one could argue that, in absolute sense, certain types of "bribery" are common business practices in the United States. Golf outings, lavish dinners, expensive liquor and other types of wining, dining and gift giving are routine (Worthy, 1989). Where is the line drawn? The bribery issue is further complicated when attempting to translate this concept in a different culture. In the languages of many bribery prone countries, the word "bribe" does not translate with a negative connotation, nor even has a direct translation. Gift or consideration may be a better translation in those cases. What Americans consider to be corrupt may simply be good manners in another country (Pisani, 1987).

In third world countries, other unpleasant realities present a more difficult problem. Inefficient local bureaucracies and widespread poverty set the stage for shady business practices. Corruption is often reinforced when time-pressured executives become frustrated with local red tape and attempt to cut through it by making payments. Many business executives also presume corruption is so common that they will have no choice but to bribe in order to do business in some third world countries (Economist, 1988).

Despite this, it remains unclear that allowing bribery would help America's competitive stance in the foreign business arena. First of all, bribery does not always work. The offer and acceptance of a bribe does not guarantee anything. The briber stands to lose not only the contract, but the bribe money as well. Often the money is not even passed on to the decision maker. In addition, the briber runs the risk of being exposed. He may need to creatively alter his books and hope that others will keep quiet. Violators who are caught can be sued or, even worse, face criminal charges that result in large fines and imprisonment. Under the FCPA, companies are liable for a fine of one million dollars for each violation, individuals for a fine of $10,000 and five years in jail (Economist, 1988).

Illegal and unethical payments also put pressure on other American firms to follow suit (Bottiglieri, 1991). Truly competitive companies who can offer low prices and high quality (or honest companies) may avoid certain foreign markets because they are unwilling to lower their standards. Perhaps allowing bribery to continue is what will ultimately put American companies at an unfair advantage.

The Language of the Bill

The competition issue is not the only concern of the Foreign Corrupt Practices Act. Of equal concern is the interpretation of the bill itself. No discussion of ethics is a matter of black and white. A goal of the Foreign Corrupt Practices Act was to clarify what is right and what is wrong in areas which are unclear. The Foreign Corrupt Practices Act has two major provisions:(Shaw, 1988) the anti-bribery provision and the accounting provision. The anti-bribery provision prohibits certain issuers, domestic concerns, or their agents from being involved directly or indirectly in making specified payments to foreign officials or candidates for the purpose of obtaining or retaining business. The FCPA as originally enacted did allow payments to be made to low level officials with ministerial or clerical duties only. This provision provided little clarity as to just how "high up" an official had to be before he/she was considered "off limits" or at what level criminal prosecution was possible. For the non-native businessman, it is difficult to determine the real capacity or job responsibility level of an official in a foreign country when visiting briefly from the outside (Business America, 1988).

The accounting provision of the FCPA requires each reporting entity to keep books and records that accurately reflect the entity's transactions in reasonable detail. It also requires the reporting entity to devise and maintain a system of internal controls to insure that assets are used only for proper corporate purposes. While the wording "in reasonable detail" was intended to allow companies some flexibility, it is uncertain as to how much detail is necessary (Bottiglieri, 1991).

Confusion and worry about inadvertent violation of the FCPA prompted passage of the Omnibus Trade Act of 1988, which clarified some of the ambiguous provisions of the original Act (Shaw, 1988). The Trade Act specifies what types of payments are actually acceptable and in addition, who may receive them. Three classes of bribes are specified. Transaction bribes, often called grease payments, are payments made to an official to accelerate the performance of a routine function (such as processing papers). A transaction bribe is considered acceptable under the Trade Act of 1988. Variance bribes, which are payments made to an official to secure the suspension of a legal norm, are considered illegal. Outright bribery, which was the original concern of the Foreign Corrupt Practices Act, is unacceptable. The FCPA also clearly states that all bribes (including transaction bribes) are illegal when performed in the United States and any other country where they are expressly prohibited (Shaw, 1988). Under the original FCPA, U.S. corporations could be held criminally liable if they would "know or have reason to know" that a payment was made on their behalf. One of the most significant changes in the Omnibus Trade Act concerns the use of these third parties to perform transactions in foreign countries (Business America, 1988). Under the new act, the U.S. firm can only be held criminally liable if it can be shown they did have actual

knowledge (or willful blindness) that an illegal payment was made to an official of a foreign government to procure a contract.

Moral Issues of the Foreign Corrupt Practices Act

Aside from the specific provisions of the Foreign corrupt Practices Act, a larger issue remains controversial. Does America have the right to dictate behavioral norms to foreign officials of another country? Many consider this a form of moral imperialism, contending that while the U.S. may have some control over the conduct of American firms, competing foreign firms will continue to bribe. A result of this type of legislation may be non-competitiveness of U.S. companies seeking foreign business. Some argue that America's responsibility should be to provide moral leadership for the rest of the world. Since the enactment of the Foreign Corrupt Practices Act, only Sweden has passed similar legislation (Swedish Penal Code, 1977).

It is also worth noting that it is not always the U.S. which blows the whistle when a violation occurs. In early 1976, the Peoples Assembly in Cairo demanded an investigation of Egyptair, the state owned airline. Egyptair had purchased several airplanes from Boeing Aircraft at higher prices than paid by Jordan for the exact same plane. One week later, the SEC file suit ordering Boeing to produce supporting documents related to the transaction. Trial results confirmed that bribes had been made to Egyptian foreign officials, thereby producing the price differential (Gillespie, 1987).

Other Cases Brought Before the SEC

As with any law, the FCPA is subject to interpretation dictated by various circumstances. In the Kirkpatrick case, Kirkpatrick and Co. "obtained a construction contract from the Nigerian Government by bribing Nigerian officials. Nigerian law prohibits both the payment and the receipt of such bribes." [1] Environmental Tectonics Corp., an unsuccessful bidder for the contract, sued Kirkpatrick under the Foreign Corrupt Practices Act for damages. Kirkpatrick argued that the FCPA did not allow such lawsuits. The U.S. Supreme Court held that the FCPA does apply and Kirkpatrick can be sued by Environmental Tectonics. Thus, a precedent was set that a company obtaining business by payment of a bribe risks having competitors sue for any damages suffered.[2]

In a second recent case, Phillip Morris, while purchasing Venezuelan tobacco, allegedly paid a bribe. The assumption was made that Phillip Morris purchased less domestic tobacco as a result. Kentucky tobacco growers sued Phillip Morris under the FCPA. The court dismissed their claim, stating that is was not the intent of the law to provide a private cause of action. The intent of the law was to "protect the integrity of the American foreign policy and domestic markets", rather than to prevent the use of foreign resources to reduce production costs[3].

Another Opportunity for American Ingenuity

While questions remain as to whether the FCPA has hurt or helped U. S. businesses, they have coped with the FCPA in a positive way. By 1988, 85% of the 2000 biggest American companies had a written, internal code of ethics which provide managers with ethical guidelines and, in many cases, ethics training. In addition, 10% of the surveyed companies had created the position of ethics ombudsman. Ethical practices are a major concern for businesses and have impacted business school curricula. Harvard reports that one quarter of the business school students opt to take the ethics course (The Economist, 1988).

The FCPA has given American companies a standard to live by and depend upon. Americans have learned to utilize the FCPA in a bribery-prone climates. Many find that the FCPA gives them the basis to refuse a solicitation for a bribe (Worthy, 1989).

The FCPA has also prompted many companies to master the local laws where they hope to do business, giving a many fold advantage. It mandates them to find other, effective methods to "get the job done" when they rpeviously may have thought bribery was their only option. Greater understanding of local laws may prevent firms from getting into other unanticipated troubles because of ignorance of foreign laws and customs.

U. S. corporations are finding that establishing a mutually beneficial partnership with a native business person in Asian countries is a far more effective way of forging business relationships than bribery. By doing so, firms "marry" the connections of the local business person and eliminate the difficult task of forging new ones on their own. Often the insights and experience of the native business person can help the American firm avoid costly mistakes (Worthy, 1989).

"Legal" types of bribery are also taking the place of monetary payments in some cases. Often information, prestige, and recognition are found to be more effective than a simple monetary payment (Worthy, 1989).

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[1]Arthur Aronoff, reports that antibribery provisions may assert as a defense that payments were lawful under written laws of the country where the payment took place.

[2]W. S. Kirkpatrick & Co., Inc. v. Environmental Tectonics Corp. International, 493 U.S. 400; 110 S. Ct. 701; 1990.

[3]Billy Lamb and Carmon Willis v. Phillip Morris, Inc., 915 F. 2d 1024: 1990.

Conclusion

After thirteen years, the Foreign Corrupt Practices Act remains intact, with major amendments added by the Omnibus Trade Act. In spite of all the controversy, speculation, and misgivings the United States appears not to have lost significant business because of it. In retrospect, much of the original concern may have been unfounded, perhaps in part due to the resilience and creativity of the American business community.

The limited number of prosecutions may lead to the erroneous conclusion that the FCPA has had little impact. The impact, however, may be the clarification of legal and illegal bribery, and more importantly, the adoption and clarification of legal and moral behavior
embedded in the company ethics programs.

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PRODUCT LINE PRICE OPTIMIZATION WITH CONJOINT ANALYSIS

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Abstract

This paper describes PRIDEL, a model for product line pricing that uses conjoint input data. The model entails three types of optimization: (a) optimal product line pricing, conditional on specified levels of non-price attributes; (b) non-price level optimization, conditional on specified price levels; and (c) overall optimization of product line prices and non-price attribute levels. The model is described and applied to an actual (disguised) case, involving product line pricing for home video games.

Introduction

Historically, the measurement of price-demand relationships has relied on statistical methods applied to either cross-sectional or time-series data. Newer approaches, however, such as those based on laboratory studies (Pessemier, 1960), in-store experiments (Doyle and Gidengil, 1977), test market simulation (Silk and Urban, 1978), and willingness-to-pay surveys (Monroe and Della Bitta, 1978) have received increased attention and, in some cases, commercial application.

Even more recently, conjoint-based methods (Mahajan *et al.*, 1982; Louviere and Woodworth, 1983; Wyner *et al.*, 1984) have considered explicitly designed competitive product profile descriptions. Respondents either pick their preferred choice from the set of alternatives, indicate their likelihood of choosing each option, or state their preferences for alternative allocations of a common resource across products or activities competing for that resource (Carroll *et al.*, 1979).

Green and Krieger (1991) have suggested that conjoint-based price optimization models should have the following features:

1. Use survey methods, similar to the kinds of buyer trade-off data that are collected in applied conjoint studies.

2. Consider not only the impact of price changes on market share but also the effect on share of non-price attribute changes by the firm and its competitors.

3. Make market-share predictions at both the total market and market segment levels.

4. Examine interactions among different competitors' prices and non-price attribute levels.

5. Be "decomposable," allowing the client to focus attention on the behavior of a single product's share as a function of individual competitors' prices and non-price activities.

6. Be calibrated to actual (i.e., existing) market shares and prices.

7. Contain an "optimizing" feature in which the user can find the best price for a given product.

8. Be flexible enough to allow interpolation across discrete price points.

9. Be user friendly and adaptable to a personal computer.

Their PRIDEM model was designed to satisfy the preceding desiderata. As its developers have indicated, the model has received considerable real world application over the past few years.

The Current Model

Occasions arise, however, where a firm markets (or plans to market) multiple products that compete with each other, as well as with products of other suppliers. Associated issues of cannibalism and competitive draw must be considered. The model reported here extends PRIDEM to product line pricing.

Specifically, the current model (PRIDEL) assumes that a specified firm has two (or more) products that compete with each other. The context also includes at least one competitive "product" (which could be represented by a no-purchase option). For specified prices of the competitive products, PRIDEL contains three optimizing features:

1. The user can find a set of prices for its product line that maximize total contribution to the firm's overhead/profits, conditional on a specified set of non-price attribute levels.

2. Alternatively, conditioned on a specified set of prices, the firm can find a set of non-price attribute levels that maximize its product line's contribution. (The user is also free to set one or more non-price attributes at prespecified levels, prior to optimization.)

3. The user can also find the *combination* of non-price attributes levels and prices that maximizes the line's contribution.

We first briefly described the model's structure. Next, we describe a case application of PRIDEL.

The PRIDEL Model

To motivate our description of the PRIDEL model, consider a situation in which a pharmaceutical firm wishes to increase the price of its antihypertensive drug, brand A. There are five other competing brands in the market niche of interest to brand A's producers: B, C, D, E, and F. The producers of brand A are able to estimate per-unit variable production and distribution costs for each of the six competitive brands. In designing the marketing research survey, brand A's producers considered four price levels each for brands A, B, and C, three levels each for D and E, and two levels for the more remote competitor, brand F. In addition, they selected one three-level, non-price attribute describing brand A's dosage schedule: once daily, twice daily, or three times daily.

A conjoint orthogonal design of 64 profile descriptions was set up. Each respondent received eight of the profile descriptions, drawn from the master design. For each description the respondent was asked to allocate 100 points across the six competitive brands to reflect the proportion of hypertensive patients for whom each drug would, under the stated conditions, be prescribed. (Prior to this task each respondent similarly evaluated a base-case profile showing the current prices of each brand and brand A's current dosage level of three times daily.) Figure 1 shows an illustrative stimulus card for one of the experimental conditions. In addition to allocating patients across products, respondent background data were collected.

FIGURE 1
ILLUSTRATIVE STIMULUS CARD

CARD D25 I.D.# _____

Share of Patients		Current Price Per Day's Therapy	+5%	+10%	+15%
	Brand A Dosage—Twice/Day	$1.97			
	Brand B	$1.88			
	Brand C				$2.12
	Brand D		$2.29		
	Brand E		$2.09		
	Brand F				$2.09
Total 100%					

Preliminaries

We first consider the question of estimating the market shares for each brand, as a function of manipulated product and price variables and respondent characteristics. Market shares are assumed to depend on three types of attributes: (a) market segment attributes; (b) non-price (product) attributes; and (c) price attributes.
We let:

$$\ell_1, \ell_2, \ldots, \ell_S \qquad (1)$$

denote the number of levels associated with each of the S segment attributes.

Similarly, we let:

$$m_1, m_2, \ldots, m_T \qquad (2)$$

denote the number of levels associated with each of the T non-price attributes.

Finally, the market shares are also assumed to depend on the brands' prices. We assume $R \leq P$ price attributes; this allows for the case in which a subset of size $P - R$ of the total P brands does not vary with respect to price. We let:

$$n_1, n_2, \ldots, n_R \qquad (3)$$

denote the number of levels of each of the R price attributes. To simplify notation, we further assume that the brands are ordered, so that brand i refers to the brand whose price is varying in price attribute i. Associated with each level of each price attribute is an actual price.

The segment attributes are used to define the universe over which the market shares are computed. We specify a segment by assigning selected attribute levels to each of the S segment attributes. We combine segments by aggregation.

The optimal price for the p-th brand is defined by the value that maximizes contribution to overhead and profit, defined by the expression:

Industry sales units × (Price - variable cost/unit of brand p) × (Market share of brand p) (4)

Market Share Model

Associated with each brand p is an estimated market share:

$$f^{(p)}(\underset{\sim}{k}; \underset{\sim}{j}, \underset{\sim}{w}) \qquad (5)$$

where $\underset{\sim}{k}$ is a vector (of length R) of prices, $\underset{\sim}{j}$ is a vector (of length T) of levels for the non-price attributes, and $\underset{\sim}{w}$ denotes S vectors denoting the universe of decision makers (i.e., the physicians).

The function $f^{(p)}$ is obtained by first fitting a main-effects model to the raw response data (i.e., the likelihood of prescribing the p-th brand in question), where the predictors are the S segment attributes, the T non-price attributes, and the R price attributes, all expressed as dummy variables. Selected two-way interactions are then added to the model in a sequential, stagewise manner (Green and DeSarbo, 1979). As noted above, interactions can be either within segment, non-price, or price attributes, or between segment, non-price, or price attributes.

The fitting of main effects and interactions yields a set of regression-based functions, one for each product, as a preliminary step toward obtaining $f^{(p)}$. Interactions can be of the following types:

- Segment by segment attribute
- Segment by non-price attribute
- Segment by price attribute
- Non-price by non-price attribute
- Non-price by price attribute
- Price by price attribute

It should also be pointed out that the sequential fitting of two-way interactions requires that attention by paid to the significance testing of additional terms. This is implemented by procedures described in Green and DeSarbo (1979). In addition, each individual model is cross-validated at each stage in the interaction fitting procedure. Cross-validated predictions are employed as the principal guide to the selection of appropriate interaction terms, once the main effects have been fitted.

The Application

An application of the PRIDEL model should serve to point out some of the methodology's features. The sponsoring firm produces two home video games: **Game Rascal** and **Eclipse**. Two competitors produce the games: **Rapid Action** and **Dynamic**, respectively.

Table 1 shows current prices, market shares, direct cost estimates, and dollar contribution per unit for each of the four major brands and a composite of all other competitors' brands. As noted, the firm's first brand, **Game Rascal**, is both high priced and has a high contribution to overhead/ profits ($94) compared to its lower priced **Eclipse**. Together, the two brands account for 32% of total market unit sales.

A conjoint survey was designed to collect the necessary data by shopping mall interviews (preceded by random digit dialing, for the recruitment of qualifying respondents). A total of 450 interviews were obtained. The primary respondents consisted of young boys (8 to 13 years old).

TABLE 1
STARTING CONDITIONS FOR
PRODUCT LINE OPTIMIZATION

Brand	Direct Prices*	Current Shares	Direct Costs	Contribution
Game Rascal	$199	15	$105	$ 94
Eclipse	89	17	61	28
Rapid Action	129	26	76	53
Dynamic	169	10	84	85
Other	110	32	63	47
		100		

*Note: In the conjoint study the range of price levels was **Game Rascal**: 149-229; **Eclipse**: 79-119; **Rapid Action**: 99-159; **Dynamic**: 149-189; Other: constant at 110. Each of the four experimentally varying brands, was described in terms of five price level variations.

In all cases the boys were accompanied by at least one parent; the interview was conducted jointly with parent and child. Each pair of respondents evaluated ten conjoint profile cases (similar in structure to the illustrative card in Figure 1), drawn from a master design of 50.

In addition, background data were obtained on four demographic variables: (a) age (8-10 versus 11-13 years old); (b) number of video games currently owned (none, 1, 2 or more); (c) amount of time/per week spent playing video games (less than 2 hours, 3-5 hours, 6-8 hours, 9 or more hours); and (d) household annual income (less than $50,000, $50-69,000, $70,000, or over).

Data Analysis

The conjoint data were then analyzed by the PRIDEL model. In addition to the price variables, a non-price attribute; size of software library available for each game (large, medium, small), was included in the model. This non-price variable pertained to **Game Rascal**; all other brands were characterized as medium-sized software library. Exhibit 1 shows a summary run of the model.

First, we submitted the basic information of Table 1 to the model. As Exhibit 1 shows, the reference conditions are first obtained, along with expected contribution per sales unit, by brand. The contribution for **Game Rascal** and **Eclipse** combined is $18.86 per unit (adjusted for their respective market shares).

Next, we solved for optimal sponsor firm prices, given level 1 (large software library). PRIDEL first employs a grid search procedure (over the admissible range of each set of prices), followed by an iterative gradient search, starting from the initial (grid search) solution. This two-step procedure produced a combined optimal return of $35.00

EXHIBIT 1
ILLUSTRATIVE RUN OF PRIDEM MODEL

```
INDICATE THE NAME OF THE INPUT FILE
GAMES2.PRE

INPUT THE LEVELS FOR THE NON PRICE ATTRIBUTES
1

INPUT THE PRICES
199  89  129  169  110

PRODUCT  PRICE    SHARE   RETURN
    1    199.000  0.150   14.100
    2     89.000  0.170    4.760      [Shares and
    3    129.000  0.260   13.780      expected returns
    4    169.000  0.100    8.500      under current prices]
    5    110.000  0.320   15.040

INPUT 1 FOR AN OPTIMAL ANALYSIS; ELSE 0
1

INPUT THE PRODUCTS TO OPTIMIZE OVER AS A
  0-1 VECTOR
1 1 0 0 0


INPUT 1 TO OPT WRT TO PRICE; 2 FOR NON-PRICE;
  3 FOR BOTH
1

INPUT 1 TO SEARCH FOR INITL. VALUE; O TO SUPPLY
  PRICES
1

INPUT THE NUMBER OF PRICE BREAKS FOR PRODUCT: 1
10

INPUT THE NUMBER OF PRICE BREAKS FOR PRODUCT: 2
10

THE OPTIMAL RETURN IS:  34.99525
PRODUCT  PRICE    SHARE   RETURN    [Optimal prices
    1    299.000  0.166   32.246    (based on iter-
    2     99.000  0.072    2.749    ative gradient
    3    129.000  0.224   11.860    procedure) for
    4    169.000  0.115    9.816    Game Rascal and
    5    110.000  0.422   19.842    Eclipse]

INPUT 1 TO OPT WRT TO PRICE; 2 FOR NON-PRICE;
  3 FOR BOTH
2

     THE OPTIMAL LEVELS ARE:  1
     THE OPTIMAL RETURN IS:   18.85999

PRODUCT  PRICE    SHARE   RETURN    [Optimal non-price
    1    199.000  0.150   14.100    attribute level,
    2     89.000  0.170    4.760    conditioned on
    3    129.000  0.260   13.780    reference prices,
    4    169.000  0.100    8.500    for Game Rascal
    5    110.000  0.320   15.040    and Eclipse]

INPUT 1 TO OPT WRT TO PRICE; 2 FOR NON-PRICE;
 3 FOR BOTH
3

     THE OPTIMAL LEVELS ARE:  1
     THE OPTIMAL RETURN IS:   34.99525

PRODUCT  PRICE    SHARE   RETURN
    1    299.000  0.166   32.246    [Optimal prices and
    2     99.000  0.072    2.749    non-price level
    3    129.000  0.224   11.860    for Game Rascal
    4    169.000  0.115    9.8161   and Eclipse]
    5    110.000  0.422   19.842

INPUT 1 TO OPT WRT TO PRICE; 2 FOR NON-PRICE;
  3 FOR BOTH
3

     THE OPTIMAL LEVELS ARE:  1
     THE OPTIMAL RETURN IS:   25.95163

PRODUCT  PRICE    SHARE   RETURN    [Optimal prices and
    1    299.000  0.112   21.779    non-price level
    2     99.000  0.110    4.173    for Game Rascal
    3    129.000  0.090    4.795    and Eclipse—
    4    169.000  0.144   12.268    low usage, low low
    5    110.000  0.543   25.527    income segment]
```

per unit, with respective prices of $299 for **Game Rascal** (a 50% price increase) and $99 for **Eclipse** (an 11% price increase).

Combined shares for the sponsor firm dropped from 32% to only 23.8%; the big competitive gainer was the "Other" category. Its share increased from 32% to 42.2%. **Dynamic Action** also enjoyed a modest increase in share. **Rapid Action** lost a few share points, suggesting that it was a less substitutable product for the sponsor's brands.

Next, PRIDEL was used to find the optimal level for **Game Rascal**'s software availability (not surprisingly, a large program library was best), conditional on current prices. Finally, the overall optimization of prices and the non-price attribute level was run; the result did not change, (in this particular example), from that found from the conditional optimizations.

We then considered a segment-level analysis, by restricting respondents to those who reported low usage of video games and low income levels. While optimal prices for the sponsor's brands and the non-price attribute level were unaffected, the combined return for **Game Rascal** and **Eclipse** dropped to $25.95 per unit, based on a combined share of 22.2%. As shown, however, a dramatic shift takes place *within* the pair of brands. Market share for the cheaper and lower margin **Eclipse** brand is relatively higher for this segment. In this segment **Eclipse** cannibalizes some of **Game Rascal**'s sales. The overall effect is to reduce markedly the combined return of the two brands, even though their combined share is only slightly lower than that found for the total-market optimal case.

Conclusions

To date, the PRIDEL model has been used on several empirical applications, most frequently drawn from the pharmaceutical industry. The predictions made from the model have been cross-checked, where possible, with time-series analyses of historical price changes. As is well

known, analyses of such "natural experiments" are difficult. In the cases analyzed, however, the results have been roughly concordant with those obtained from the model.

There are two main advantages of the PRIDEL model over the approach proposed by Mahajan *et al.* (1982). First, market segment responses can be estimated by means of main effects parameters and interactions with price and non-price attribute levels. Second, the present model solves for optimal single product and product line prices, conditioned on fixed levels for price and non-price attributes of competitive products (using variable cost data estimated by the sponsoring firm's financial department). Moreover, use of the model is straightforwardly implemented by non-technical personnel on either a main frame or personal computer.

There are limitations to the model, as currently formulated and operationalized. First, the model deals with aggregated responses, where segment differences are measured by within and between-set interactions. Researcher-selected segmenting variables may not adequately capture full individual variation in attribute-level part-worths.

Second, the model does not make allowance for lack of respondent knowledge about actual prices; in some cases the model could overstate price sensitivity, since full comparative pricing information is shown to the respondents. Third, while the model handles intra-product line substitutions, it does not consider joint production/ distribution costs.

Action and Reaction Sequence

PRIDEM also enables the user to examine action and reaction sequences, albeit in a rather simple way that does not consider changes in buyer preferences or other kinds of new information that might be obtained between successive rounds of price changes. To date, management's reaction to PRIDEM's potential for formulating "dynamic" (action/ reaction) strategies has been less than enthusiastic. We have found that managers are more concerned with the interplay of non-price and pricing strategies, with priority given to the former. Because competitive retaliation to non-price actions is typically more difficult to initiate and its effects less immediate, this emphasis is understandable.

When managers do engage in action/reaction gaming, their interest usually does not extend to questions of long-term equilibria; rather, it is focused on only two to three moves ahead. Again, we do not find these views naive and "myopic." Managers typically lack information regarding competitors' costs, motivations and intentions; moreover, they also face questionable assumptions regarding stability in buyers' perceptions and brand preferences over the time period under study.

In sum, we consider the model and its associated decision support system as an interim effort that can (and should) be expanded. If we have learned anything from the development of PRIDEL (and its predecessor, PRIDEM), it is the important fact that useful models must pay attention to the kinds of measurements and data inputs one is able to obtain from the environment (e.g., marketplace).

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PURCHASE MOTIVATION AS A FUNCTION OF SELF-CONGRUITY AND FUNCTIONAL CONGRUITY: A STRUCTURAL-CAUSAL ANALYSIS

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Abstract

This paper develops and tests a model of purchase motivation. The model asserts that purchase motivation can be predicted by self-congruity and functional congruity. Self-congruity is hypothesized to be mostly determined by value-expressiveness. Functional congruity, on the other hand, is hypothesized to be mostly determined by product utilitarianism.

Whereas the product value-expressiveness part of the model only partially supported the hypotheses, the product-utilitarian part of the model was consistent with the hypotheses.

Introduction

The two most common approaches used in advertising to influence consumer behavior might be described as value-expressive (Image) appeal or utilitarian (Unique Selling Proposition) appeal (Lutz 1979; Snyder and DeBono 1985). According to David Ogilvy (1963), the Image strategy involves the building of a "personality" for the product or creating an image of the product user. This advertising strategy can be viewed as directly linked with several tracks of research in consumer behavior. These tracks include product symbolism (Belk 1981; Belk, Bahn, and Mayer 1982; Csikszentmihali and Rochberg-Halton 1981), consumer self-concept (Sirgy 1982, 1985a; Solomon 1983), symbolic consumption (Belk 1985; Hirschman 1981; Levy 1959; Munson & Spivey 1981), soft-sell/image advertising (Snyder & DeBono 1985) and psychographic/life-style research (Anderson & Golden 1984; Cosmas 1982; Demby 1974; Plummer 1974).

The Unique Selling Proposition (USP), on the other hand, involves informing consumers of one or more key benefits that are perceived to be highly functional or important to target consumers. This advertising strategy also feeds into several research tracks in consumer behavior. Among the most salient ones are benefit segmentation (Myers 1976), "hard-sell/quality appeal" (Snyder & DeBono 1985), multiattribute attitude models (Miniard & Cohen 1983; Oliver & Bearden 1985; Shimp & Kavas 1984), decision-making models (Currim 1982; Grether & Wilde 1986; Hagerty 1983; Johnson 1984; Punj & Stewart 1983), conjoint measurement (Green & Wind 1975), perceptual mapping (Green & Carmone 1970).

Although the research literature in consumer behavior has made "hints" describing the effects of product value- expressiveness and utilitarianism on purchase motivation, these concepts have not been addressed formally in any rigorous manner. What is needed is a model that integrates a variety of concepts related to product value-expressiveness and utilitarianism. This is what we have tried to accomplish in this paper, i.e., develop an integrative model dealing with product value-expressiveness and utilitarianism. In this paper our primary goal is to demonstrate that the basis of purchase motivation is product value-expressiveness and utilitarianism. The form of consumer processing in selecting a value-expressive product is argued to be based on self-congruity (which is measured by self-image congruence model). On the other hand, purchase motivation of a utilitarian product is argued to be based on the strength of the functional congruity (which will be measured by multiattribute models).

Self-Congruity and Functional Congruity

Self-congruity refers to the match between the product image and the consumer's self-image (as measured by a self-image congruence model). Functional congruity refers to the match between the consumer's perceptions of the product's functional characteristics and the desirability of these characteristics (as measured by multiattribute attitude model, which only include functional attributes, no symbolic attributes are included).

The Effects of Self-Congruity and Functional Congruity on Purchase Motivation

Much of the research in consumer behavior and marketing have demonstrated the predictive effects of multiattribute attitude models (Ajzen and Fishbein 1980; Bass and Talarzyk 1970, 1972; Fishbein 1963; Fishbein and Ajzen 1975; Hagerty 1983; Meyer 981; Miniard and Cohen 1983; Myers and Alpert 1968; Oliver and Bearden 1985; Punj and Stewart 1983; Rosenbert 1956; Sheth and Talarzyk 1972; Shimp and Kawas 1984; Wildt, Bruno, and Ginter 1981; Wilkie and Pessemier 1973) and self-image congruence (Birdwell 1968; Csikszentmihali and Rochberg-Halton 1981; Delozier and Tillman 1972; Dolich 1969; Grubb and Stern 1971; Lamone 1966; Levy 1959; Munson 1981; Ross 1971; Sirgy 1982, 1985a, 1985b, 1986) of purchase motivation (attitude, intention, choice, use, repeat purchase, loyalty, etc.).

Hence, it can be hypothesized that the greater the self-congruity, the greater the purchase motivation (HYPOTHESIS 2). In contrast, we hypothesize that the greater the functional congruity, the greater the purchase motivation (HYPOTHESIS 1).

The Effects of Product Value-Expressiveness on Self-Congruity and Product Utilitarianism on Functional Congruity

We suggest that self-congruity is influenced by product value-expressiveness. The greater the product value-expressiveness, the greater the likelihood that certain consumers, who have self-images consistent with the product image, will

experience self-congruity with the product, motivating them toward the purchase and acquisition of that product (Sirgy 1982, 1985a; Solomon 1983). We also suggest that functional congruity is influenced by product utilitarianism. That is, the greater the product utilitarianism, the greater the likelihood that consumers who have an ideal functional image of the product consistent with the perceived functional characteristics of the product will experience functional congruity with the product, motivating them toward the purchase and acquisition of that product (Hagerty 1983; Miniard & Cohen 1983; Shimp & Kavas 1984). Self-concept researchers have shown that self-image congruence models are mostly applicable when the product in question is value-expressive; and, conversely, it has been shown that multiattribute attitude models are mostly applicable when the product in question is high on utilitarianism (Johnson 1984; Munson & Spivey 1981; Sirgy 1982, 1985a; Sirgy and Johar, 1985a, 1985b; Varvoglis & Sirgy 1984).

Hence, it is hypothesized that the greater the product value-expressiveness, the greater the self-congruity (operationalized through a self-image congruence model) (HYPOTHESIS 3). In contrast, we hypothesize that the greater the product utilitarianism, the greater the functional congruity (HYPOTHESIS 4).

Method

Product Selection

Eight products (automobile, camera, beer, watch, tires, headache remedy, carbonated soft drink and TV) were selected for the study. The selection criterion was that products would vary in product value-expressiveness and product utilitarianism.

It should be noted that the extent to which a specific product is judged as value-expressive or utilitarian is dependent on the consumer's frame of reference. For example, a brand of automobile such as Porsche can be judged as highly value-expressive relative to a Ford Escort but low in value-expressiveness relative to a Ferrari. We decided to control possible confounds from the possible use of different frames of references by specifying a referent brand for each of the selected (focal) brands. This categorization was reasonably confirmed by the use of correspondence analysis (Lebart, Morineau and Warwick 1984).

Self-Congruity Measures

Self congruity involved the comparison between product image and actual and ideal self-images, using the popular distance index traditionally employed in consumer self-concept research (Sirgy 1982, 1985a). In a preliminary study with 39 college students, a set of attributes were generated through open-ended questions. From these a set of symbolic attributes were formulated specific to each of the eight products. These attributes were used to measure the product image with a 5-point Likert-scale. The response cue used for product image was: "Imagine a person who might possess (or prefer to buy) Focal Brand and compare him/her with a typical person who might prefer to buy Referent Brand. Indicate your agreement or disagreement to the following items that describe the person who might typically prefer to buy Focal Brand. Circle the number which most closely reflects your opinion." Each Likert scale contained a "no-opinion" category, which were treated as missing values in the statistical analyses. An example of a symbolic attribute used to tap the product image in the context of the automobile questionnaire is: "The owner of a Honda Civic automobile is a more stylish person than the owner of a Chevy Chevette."

The actual self-image was measured using the same set of symbolic attributes (used to measure the product image) along 5-point Likert scales. The response cue we used was as follows: "Indicate your agreement or disagreement to the following items that describe your 'actual self' - that is, the sort of person you truly see yourself." An example of a symbolic attribute used to tap the actual self-image in the context of the automobile product situation is: "I am the type of person who is stylish." The response cue used to tap the ideal self-image was: "Indicate your agreement or disagreement to the following items that describe your 'ideal self' - that is, the sort of person you would most like to be (or being), or the way in which you ideally see yourself." An example of a symbolic attribute used to tap the ideal self-image in the context of the automobile product situation is: "I like to be (or being) the type of person who is stylish."

Functional Congruity Measures

From the preliminary study, a set of functional (performance-related) evaluative criteria were content-analyzed from the open-ended questions. From the content analysis results, a set of functional attributes were formulated specific to each of the eight products. These attributes were used to measure the component variables involved in the multiattribute attitude model. The belief-important multiattribute attitude model (Bass & Talarzyk 1970; Bass & Talarzyk 1972; Sheth 1973; Sheth & Talarzyk 1972) was selected because of its popularity in consumer research (Lutz and Bettman 1977; Wilkie and Pessemier 1973). The model involves the sum of the product of belief strength and importance weights across a set of functional attributes.

The belief strength variable was measured using the following response cue: "Listed below are possible attributes of Product X. For each of these attributes, please indicate by circling the appropriate number how likely or unlikely it is that Focal Brand would possess each attribute compared to Referent Brand." Response to this question was formulated in terms of a set of functional attributes measured using a 5-point likelihood scale (from "very unlikely" to "very likely"). A "don't know" category was also included, and responses to this category were treated as missing values. Examples of functional attributes used in the automobile product situation include "more reliable," "better value," "safer to drive," "more reliable," "better value," "safer to drive,"

"more miles per gallon," "more economical," among others.

The importance variable was measured using the following response cue: "If you were considering purchasing Product X in general how important or unimportant are the following characteristics to you? For most people some things are more important than others. Please circle the number which is closest to the degree of importance you would attach to that characteristic when shopping for a Product X." The same functional attributes used to tap the belief strength variable were also used to tap the importance variable. The response scale used was a 5-point scale varying from "very unimportant" to "very important."

Product Value-Expressiveness/Utilitarianism Measures

In the preliminary study, two self-report measures were developed and tested (each composed of 10 Likert-type scales), one measuring product utilitarianism and the other measuring value-expressiveness across 20 product brands. The 20 product brands were selected to fit four groups: (1) five product brands high on value-expressiveness and high on utilitarianism [automobile - Honda Civic relative to Chevy Chevette; camera - Nikon SLR relative to Kodak; vacation - nearby beach resort relative to Europe; sports shoes - Nike relative to generic brand; and personal computer - IBM-PC relative to TI-99], (2) five product brands high on value-expressiveness and low on utilitarianism [beer - Budweiser relative to Miller High Life; instant coffee - Taster's Choice relative to Folgers; jeans - Calvin Klein relative to Levi; automobile - MG Sports Car relative to Ford Escort; and wrist watch - Seiko Quartz relative to Timex Quartz], (3) five product brands low on value-expressiveness and high on utilitarianism [shampoo - Head and Shoulders relative to Johnson & Johnson; automobile - Honda Civic relative to Pontiac Firebird; laundry detergent - Tide relative to Sunlight; headache remedy - Tylenol relative to generic aspirin; and tires - Michilen relative to Dunlop], and (4) five product brands low on value-expressiveness and utilitarianism [carbonated soft drink - Coca Cola relative to Pepsi Cola; portable color TV - RCA relative to Zenith; news magazine - Time relative to Newsweek; table clock radio - Panasonic relative to G.E.; and regular bath soap - Camay relative to Lux]. See the measures in the Appendix. The internal consistency type of reliability of the two measures was found to be satisfactory (ranging from 0.662 to 0.946 for the value-expressive measures, with respect to the products tested, and 0.849 to 0.976 for the utilitarian measures). Further, these scales were factor analyzed (oblique rotation) with respect to each of the products. This resulted in an average of five items per product. The items were selected based on two criteria: (1) they all load on one factor accounting for the greatest portion of the variance, and (2) they load on that factor with a factor loading greater than .50.

The reader should note that each of the eight samples (products) received value-expressiveness/utilitarianism items that were not identical, i.e., they varied from product to product. A reliability analysis was conducted on these items in the context of each product sample separately. The correlation pattern of the product value-expressiveness (and utilitarianism) items and Cronbach Alpha analysis were closely examined. From this analysis, additional items found to be inconsistent with other items were deleted.

Purchase Motivation Measure

Four self-report items using 5-point Likert-type scales were used to measure attitude/ intention for each of the eight products. These were:

* I like Focal Brand better than Referent Brand.
* I would use Focal Brand more than I would Referent Brand.
* Focal Brand is my preferred brand over Referent Brand.
* I would be inclined to buy a Focal Brand over Referent Brand.

The Cronbach Alpha coefficients for each of the eight products varied from .72 to .98, indicating that these attitude/intention indicators are highly interrelated.

Sampling

Eight different samples were obtained, each corresponding to a different product (eight products used in the study). The goal was set to obtain 70 respondents for each of the eight samples (eight products), a total of 560 respondents. Marketing students were used as consumer subjects for this study. The use of a student sample is justified in this study because of the theoretical and not descriptive significance of this study (Calder, Phillips & Tybout 1981; Kruglanski 1975). Students were handed the questionnaire and asked to take it home and fill it out for an incentive of 1% point extra credit (toward the final grade). A total of 428 students completed the questionnaire producing a response rate of 76%. More specifically, the responses were broken down as follows: auto (n=53), camera (n=39), watch (n=47), beer (n=64), tires (n=35), soft drink (n=70), TV (n=50), and headache remedy (n=70).

Reliability Check and Variable Screening

Factor analysis and Cronbach's Alpha were used to screen variables from the measures used in the study: Product Value-Expressive, Product Utilitarianism, Self-Congruity (Actual Self and Ideal Self), Functional Congruity, and Purchase Motivation.

The combined use of factor analysis and reliability tests helped identify items that had to be eliminated from further analysis, from the various instruments.

Check on Variable Distribution and Treatment of Problem Variable Sets

In view of the multivariate distribution requirement of LISREL, a skewness test was conducted on the variable sets of various

constructs. The skewness measure on all the variable sets were reasonable except for the actual self-concept and ideal self-concept measures. A square root transformation on these variables helped improve the distribution characteristics.

The sample was randomly divided into equal sub-samples, and the same series of analyses, using Joreskog and Sorbom's (1986) LISREL-VI program, were performed on the covariance matrices independently computed for each sub-sample.

Structural Model Testing the Relationship of Product Value-Expressiveness, Product Utilitarianism, Self-Congruity, Functional Attitude, and Purchase Motivation.

The predicted statistical relationships are:

(1) purchase motivation is a positive function of functional congruity (Hypothesis 1),
(2) purchase motivation is a negative function of self-congruity (Hypothesis 2) [negative because self-congruity is operationalized using a distance model, i.e., the higher the discrepancy, the lower the self-congruity],
(3) functional congruity is a positive function of utilitarianism (Hypothesis 3), and
(4) self-congruity is a negative function of value-expressiveness (Hypothesis 4) [comment similar to second hypothesis].

First the test half of the data was analyzed producing the following, **goodness of fit results**:

Chi-Square = 27.69; d.f. =23; p. 0.228
Chi-Square/d.f. = 1.2
Goodness of Fit Index = 0.97
Bentler and Bonnett's (1980) Normed Fit Index = 0.98
Tucker and Lewis (1973) Fit Index = 0.99

The above assessment indices represent a fairly well-fitting model.

The validation sample tested on the above model also resulted in a **reasonably good fit.**

Chi-Square = 29.88; d.f. = 23; p = 0.153
Chi-Square/d.f. = 1.3
Goodness of Fit Index = 0.97
Bentler and Bonnett's (1980) Normed Fit Index = 0.98
Tucker and Lewis (1973) Fit Index = 0.99

The validation sample confirmed all the above hypothesized relationships except the direct negative association between self-congruity and value-expressiveness. That is, Hypotheses 1, 2, and 3 were confirmed but not Hypothesis 4.

Inspection of the path diagram reveals that a variable may causally affect another variable not only directly, but also indirectly by affecting one or more interviewing variables (see **Figure 1**).

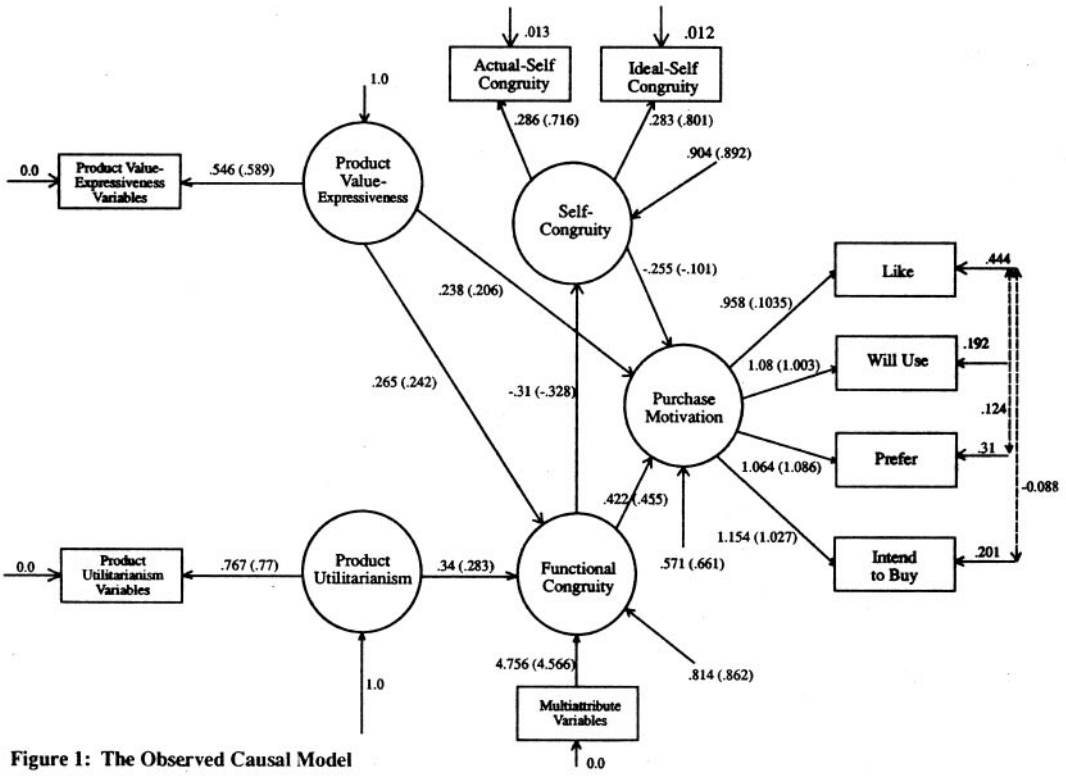


Figure 1: The Observed Causal Model

Notes: 1. Standardized Lisrel Estimates reported.
2. Standardized Lisrel Estimates of the validation sample in parentheses.

It appears that Product Value Expressiveness affects Purchase Motivation through three paths as shown in **Figure 2**.

The direct path from product value-expressiveness to purchase motivation is the strongest among the three paths (for both the test sample and the validation samples).

Furthermore, it appears that Product Utilitarianism affects Purchase Motivation through two paths as shown in **Figure 3**.

The path from product utilitarianism mediated by functional congruity to purchase motivation appears to be the stronger path for both the test sample and the validation sample.

In terms of relative association among constructs a noteworthy finding was that the association of functional congruity to purchase motivation is much stronger than the association of self-congruity to purchase motivation and also than the association of Product Value-Expressiveness to Purchase Motivation.

An important point to note is that the structural models of this research were validated through a randomly generated hold-out sample. In addition an EQS (Bentler 1982) analysis resulted in similar parameter estimates and goodness of fit values.

1. **Product Value-Expressiveness** —(0.238) / (0.206)→ **Purchase Motivation**

2. **Product Value-Expressiveness** —(0.265) / (0.242)→ **Functional Congruity** —(-0.31) / (-0.328)→ **Self Congruity** —(-0.255) / (0.101)→ **Purchase Motivation**

3. **Product Value-Expressiveness** —(0.265) / (0.242)→ **Functional Congruity** —(0.422) / (0.455)→ **Purchase Motivation**

(The top figures are path coefficients from the test sample and the bottom figures are from the validation sample.)

	Test Sample Model				Validation Sample Model			
Path (1):	(0.238)			=0.2380	(0.206)			=0.206
Path (2):	(0.265)	(-0.31)	(-0.255)	=0.0209	(0.242)	(-0.328)	(-.101)	=0.008
Path (3):	(0.265)	(0.422)		=0.1118	(0.242)	(0.455)		=0.110
	Total Effects			=0.3707				=0.324

FIGURE 2

1. **Product Utilitarianism** —(0.34) / (0.283)→ **Functional Congruity** —(-0.31) / (-0.328)→ **Self Congruity** —(-0.255) / (-0.101)→ **Purchase Motivation**

2. **Product Utilitarianism** —(0.34) / (0.283)→ **Functional Congruity** —(0.422) / (0.455)→ **Purchase Motivation**

	Test Sample Model				Validation Sample Model			
Path (1):	(0.34)	(-0.31)	(-0.255)	=0.0269	(0.283)	(-0.328)	(-0.101)	=0.0094
Path (2):	(0.34)	(0.422)		=0.1435	(0.283)	(0.455)		=0.1288
	Total Effects			=0.1704				=0.1382

FIGURE 3

Discussion

The research literature addresses the effects of value-expressiveness and utilitarianism on purchase motivation in a fragmented fashion. That is, no effort has been made to develop and test an integrative model involving the effects of product value-expressiveness, (self-congruity, product utilitarianism, (functional congruity), on purchase motivation. The primary goal of the present research was to develop and test such an integrative model.

This study has developed and tested a model in which self-congruity and functional congruity were hypothesized to influence purchase motivation. Self-congruity was also hypothesized to be influenced by product value-expressiveness. Functional congruity, on the other hand, was hypothesized to be mostly influenced by product utilitarianism. The study used eight products varying in value expressiveness and utilitarianism.

The model was tested using structural-causal analysis involving Product Value-Expressiveness, Product Utilitarianism, Self-Congruity, Functional Congruity, and Purchase Motivation. The results produced a well fitting and validated model. The results provided support for the hypothesized relationships between purchase motivation and functional congruity (Hypothesis 1) and self-congruity (Hypothesis 2), and between functional congruity and utilitarianism (Hypothesis 3). The structural-causal analysis, on the other hand, failed to provide support for the hypothesized relationship between self-congruity and value-expressiveness (Hypothesis 4). With respect to Hypothesis 2, the results showed that the direct path from product value-expressiveness to purchase motivation was much stronger than through self congruity. The direct path between product value-expressiveness and purchase motivation asserts that purchase motivation may be a direct function of value-expressiveness, i.e., the greater the value-expressiveness of the product brand, the higher the likelihood of purchase. Although the direct path may be plausible, future research should be directed to ascertain the possibility of a product or population bias. That is, it may be possible that the influence of value-expressiveness on self-congruity did not reveal itself due to something peculiar about the products used or the sample population (college student). Future research should be conducted with other products and other populations. Other possibilities that may explain the unexpected finding between value-expressiveness and purchase motivation include (1) weak treatment effects and (2) lack of strong reliability of the value-expressiveness measure.

First, although the selected products were selected as high versus low utilitarian (value-expressive) products, and the manipulation checks supported this fact, the means and standard deviations of respondents' self-report utilitarianism (value-expressiveness) suggests that the treatment effect may not have been strong enough. Hence, future research may attempt to replicate this study with an eye on creating <u>stronger</u> treatment conditions.

<u>Second</u>, although the product value-expressiveness and utilitarianism have been found to be reliable and valid from an extensive preliminary study, the main study show <u>moderate</u> (and even in some cases) low reliability coefficients. This may be due to the moderately small sample size within each product sample. That is, the variance may be restricted or limited because of small sample size resulting in low to moderate reliability coefficients. Future research may be directed to remedy the reliability problem by (1) increasing the sample size of each product sample, and/or (2) standardizing the product value-expressiveness and utilitarianism measure in such a way that the same items (indicators) can be used across all product samples. Note in this study, based on the factor analytic results, those items that loaded highly on one factor in the preliminary study were chosen for inclusion in the main study, the objective being to use a short-version of the scales. This resulted in a situation in which different value-expressiveness/utilitarianism items were used for different product samples. Future research should be directed to develop a more standardized, reliable, and valid measure of product value-expressiveness/utilitarianism. Perhaps one solution may be to revert back to the use of the long-version of the scale (20 items scale) as used in the preliminary study.

(References and other tables may be obtained from the authors.)

THE EFFECT OF PERCEIVED FIT ON CONSUMER EXPECTATIONS OF BRAND EXTENSION SUCCESS

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Abstract

This paper investigates consumer expectations about the potential success of a proposed brand extension. Initial expectation of success without attribute-specific information forms the foundation of the consumer's evaluation of the extension. We demonstrate that expectation of success, confidence in the expectation, and likelihood of extension trial vary according to the degree of perceived fit between the core brand and the extension. Principal component analysis reveals that bases of similarity used in assessing category fit can be characterized as manufacturing company features and situational features. Additionally, results show that considerations other than degree of fit influence the formation of initial expectations.

Introduction

Introducing a brand can cost from $20 to $50 million and the new brand has only a 5 percent chance of succeeding (Dagnoli 1990). The use of brand extensions has increased (Farquhar 1989; Urbanski 1988) because product developers consider extensions to be easier, safer, and less expensive than completely new introductions (Schlossberg 1990). Today, only 5 to 10 percent of "new" product introductions are really new; the rest are extensions (Fannin 1989). However, the risks are still high: the best success rate has been only 50 percent after two years for food product extensions (Pearson 1990). Clearly, the identification of procedures to increase brand extension success rates is called for.

Despite the strategic importance and pervasiveness of brand extensions, detailed and influential academic research in this area is limited and has only recently appeared in print (e.g., Aaker and Keller 1990; Farquhar, Herr, and Fazio 1990; Keller and Aaker 1990). The impetus for this research may stem from the recent emergence of the brand equity concept, which developed as a result of leveraged buyouts in the 1980s. Many firms have realized that a strong brand name is an asset that must be protected from damage caused by inappropriate usage. Common wisdom holds that unsuccessful extensions may result in a weakening of the core brand (Farquhar, Herr, and Fazio 1990; Kotler and Armstrong 1991, p. 265). This concern over undesirable side effects of ill-considered extensions has resulted in a stream of research that focuses on determining the boundaries of branding strategies (e.g., Aaker and Keller 1990; Farquhar, Herr, and Fazio 1990; Keller and Aaker 1990). Research methodologies and findings are diverse; however, some central themes have emerged.

Diverse results may be a result of definitional ambiguity of product categories and extensions. For the purposes of this paper, we will adopt the definitions proposed by Farquhar (1989). A "line extension" applies an existing brand name to a new product in the same category (e.g., **Tide** extended from powder to liquid laundry detergent). In contrast, a "category extension" extends the existing brand name to a new product category (e.g., **Ivory** extended from hand soap to shampoo). This paper is concerned with category extensions.

A major focus of brand extension research has been the concept of product category fit. This paper illustrates a unique approach to evaluating the effects of perceived fit between the core brand category and an extension category. In this study, fit is manipulated to examine consumers' expectations of the potential marketplace success of a brand extension. The perceived level of fit influences consumer's expectations about the extension. This study specifically investigates the relationship of expectations with the degree of fit the extension shares with the core category. Additionally, we present an exploratory investigation of the bases of similarity that determine fit. Study results are described, and future research directions discussed.

Theory and Hypotheses

Perceived Fit

Perceived fit is a major focus of brand extension research. Virtually all investigations in the brand extension area have either measured or manipulated the degree of fit between the core category and the extension category (e.g., Aaker and Keller 1990; Boush and Loken 1991; Farquhar, Herr, and Fazio 1990; Keller and Aaker 1990; Minnesota Consumer Behavior Seminar 1987). The basic rationale for the importance of the fit concept lies in the notion that consumers will perceive various associations between the core brand and its extensions. The greater the degree of fit, the greater the amount of relevant associations (Farquhar, Herr, and Fazio 1990). Empirical investigations of consumer reactions to brand extensions have demonstrated relationships between perceived fit and (1) the perceived quality of the proposed extension (Aaker and Keller 1990; Keller and Aaker 1990); (2) the perceived credibility of the manufacturer (Aaker and Keller 1990; Keller and Aaker 1990); and (3) the degree of "affect" (i.e., attitude) transfer from core brand to extension (Boush and Loken 1991; Minnesota Consumer Behavior Seminar 1987).

We conceptualize the perceived fit construct in a manner similar to prior research; that is, as a latent variable measured by items designed to assess the similarity between two or more categories. Most inquiries into similarity in the area of brand extension research can be traced to Tversky's (1977) model of similarity. In this

model, the degree of similarity is a linear combination of the common and distinctive features of objects. The unanswered question in the core-extension fit context is, what features, or attributes, do consumers consider when making judgments of fit? In other words, what bases of similarity should be tapped by the researcher to predict with confidence the perceived fit of a proposed extension with a core brand? The current study will provide exploratory observations to help provide further insights into this question.

Previous similarity measures. Various measures of similarity have been used in studies of brand extensions. For example, Aaker and Keller (1990) measured complementarity (i.e., products used together), substitutability (i.e., a common product function), and transferability (i.e., the degree to which the manufacturing and marketing skills demonstrated in making and selling the core product could be applied to the extension). Additionally, Keller and Aaker (1990) measured the degree to which product attributes or characteristics are shared by the core product and the extension and suggested other dimensions such as similarity of likely product users. Ratneshwar and Shocker (1991) examined the role of usage context in judgments of category similarity. Tauber (1988) suggested a measure of perceived consistency between the core brand and extension. The Minnesota Consumer Behavior Seminar (1987) simply asked how similar the extension was to the core product.

All the above measures yielded interpretable results; however, divergent research designs and contexts make it difficult to integrate findings. Our study integrates the above research by incorporating all theoretically justified similarity measures in the above listed studies. Additionally, a thought-listing task provides further insight. This will allow exploration of fit dimensions. Due to the exploratory nature of this portion of the research, we propose no formal hypotheses.

Expectation

An expectation is a belief concerning the likelihood that a particular act will be followed by a particular outcome (van Raaij 1991). Three types of expectations have been identified and are characterized by the sources of information input used to form them. A **descriptive expectation** is formed as a result of direct experience. An **informational expectation** is formed from input received from various outside sources (e.g., promotional messages or word-of-mouth). An **inferential expectation** is formed when there is a lack of experience or germane information. We believe that the formation of an expectation concerning a new extension can be characterized as a process in which an inferential expectation is first formed and then subsequently revised into an informational expectation and finally, in some cases, becomes a descriptive expectation. The expectations considered in this study are assumed to be inferential and are operationally defined as follows:

> Subjective beliefs, lacking any attribute-specific information or experience as input, concerning the likelihood that a particular extension of the core brand to a different product category will be successful in the marketplace.

The major premise of our study is that expectations held by consumers may impact evaluations of proposed extensions: consumers may simply not **expect** a dissimilar extension to be successful, resulting in a "self-fulfilling prophecy" effect. To reiterate, we do not claim consumers can objectively predict the success or failure of a brand extension, but they can form a belief.

The phenomenon of anchoring (Tversky and Kahneman 1974) suggests that the first, inferential expectation formed by the consumer will bias new stimuli in the direction of the existing expectation (van Raaij 1991). For example, consumers presented with promotional communications for the extension could perceive the message in a biased manner. If the initial expectation is positive, this could be advantageous to the marketer because the consumer will perceive marketing information positively. Alternatively, a negative initial expectation could be disastrous. In the worst case, the consumer might dismiss the extension as unlikely to be successful, based on his or her initial expectation, and therefore unworthy of further investigation or trial. Additionally, research on the Bayesian notion of revising prior probabilities suggests that people tend to under-utilize new information in changing existing expectations (van Raaij 1991). To summarize, the initial, inferential expectation regarding a proposed extension may be critical to its long-term acceptance/success in the market.

The most closely focused investigation of expectation in the consumer behavior literature has been in terms of its relationship to consumer satisfaction and dissatisfaction (see Oliver and Winer 1987 for a brief review). The major thrust of this research stream has focused on the effects of the disconfirmation of expectations on the consumer's level of satisfaction with product performance (e.g., Cadotte, Woodruff, and Jenkins 1987; Churchill and Surprenant 1982). Measures of expectation have been primarily attribute-based (i.e., expectations concerning specific product attributes). This is the case in satisfaction research as well as research involving multiattribute models (e.g., Fishbein and Ajzen's theory of reasoned action) and pricing (e.g., Jacobson and Obermiller 1990) which incorporate the notion of expectation. The expectations studied in these streams of research can best be described as informational and/or descriptive in nature.

Formation of inferential expectations. A brand name can be regarded as information (e.g., Jacoby, Szybillo, and Busato-Schach 1977). However, in this study, a fictitious brand name is used; therefore, the information conveyed is minimal, and attribute-specific information is non-existent. Even without attribute information,

consumers form beliefs and expectations (Sedikides and Skowronski 1990). Hence, any expectations should be formed by a process of reasoning about the relationship between the core brand and the extension. This relationship is operationalized as the degree of fit between the core category and the extension category. It is proposed that a consumer holds an inferential expectation concerning the outcome of a particular brand extension, and that this expectation is related to the degree of fit between the core category and the extension category. More formally:

H1: As the perceived fit of the core category and the proposed extension category decreases (increases), the expectation of success for the extension will decrease (increase).

The degree of confidence one has in an expectation is also important. The more confident consumers are in their initial expectations, the more resistant to revision those expectations should be (Kahneman and Tversky 1973). Expressed in terms of the anchoring phenomenon, a highly confident consumer will be more likely to bias additional information in the direction of the initial expectation. Research on the representativeness heuristic (e.g., Kahneman and Tversky 1973) suggests that people are more confident when predicting extremes. For example, when asked to predict academic performance for students, subjects were more confident in predictions of outstanding achievement and utter failure than in predictions of mediocrity (Kahneman and Tversky 1973). Based on these findings, the first hypothesis leads to the following prediction:

H2: Subjects will express greater confidence in estimations of extension success for close extensions and far extensions than for a medium extension.

Expectations of extension success also should be related to willingness to try the extension. However, this relation may not be strong, due to the inferential nature of the expectation. For example, a consumer armed with only a rudimentary expectation that a extension will not be very successful (due to its lack of fit with the core category) should be less likely to try the extension. The design of our experiment does not allow a direct test of this relationship, because expectation was not directly manipulated. However, an indirect test can be made by using fit as a surrogate for expectation. Support for the first hypothesis would allow this approach. Thus:

H3: As the perceived fit of the core category and the proposed extension category decreases (increases), the likelihood of trial for the extension will decrease (increase).

These hypotheses are investigated in a simple experiment in which the degree of fit between the core category and the extension category is manipulated.

Method

Subjects

Subjects used for all pretests and the main study were drawn from undergraduate marketing courses at the University of Wisconsin-Madison. Subjects voluntarily completed self-report measures in a classroom setting for extra credit. The sample contained 60 percent females and 40 percent males, and the average age of the sample was twenty-two.

Pretests

Pretests were used to identify the product class, core and extension categories, and fictitious brand name for use as stimuli in the main study. Subjects were informed that the purpose of each study was to learn more about a new way of testing consumers' reactions to products that companies are considering for market introduction (cf. Keller and Aaker 1990). Subjects were debriefed after completing questionnaires. Fifty usable questionnaires were returned.

Core product identification. The first pretest was used to determine potential product classes from which suitable categories could be drawn for the main study. A survey using 7-point scales asked subjects to rate a variety of product and service classes for knowledge about the class, the personal importance of the class, its relation to self-concept, and its interest to the respondent (cf. Keller and Aaker 1990). After removing product/service classes with low scores and significant gender differences, the following were retained for further investigation: music playback electronics (e.g., compact disk players), leisure wear (e.g., sunglasses), things worn while exercising (e.g., athletic shoes), and means of communication with friends (e.g., long-distance telephone services).

Extensions. The second pretest was used to determine the similarity/dissimilarity of extensions relative to a core category in each of the four classes noted above. The survey used a 7-point scale anchored by 1 = "not all similar" and 7 = "very similar." The core product "athletic shoes" in the class "things worn while exercising" was chosen for use in the main study because it demonstrated the widest range in extension scores. Based on the similarity/dissimilarity scores, three extensions were chosen for athletic shoes: sportswear (close extension, mean=5.04), bicycles (medium extension, mean=3.09), and deodorant (far extension, mean=2.21).

Brand name. The second pretest followed procedures introduced by Keller and Aaker (1990) to identify a fictitious brand name for the core product and proposed extensions. A novel name controls for possible contamination of prior knowledge and experience with a real brand name. Five potential brand names were rated by their overall appeal in the product class. The brand

name "Racers" was rated as most appealing and was selected for use in the main study. Use of a uniformly appealing brand name should minimize possible effects of attitude toward the brand name on expectations (cf. Zinkhan and Martin 1987).

Main Study Procedure

Subjects (different from pretest subjects) were randomly distributed one of three surveys. The first survey condition was the close extension fit (sportswear), the second was the medium fit (bicycles), and the third was the far fit (deodorant). All subjects first read a brief description of the core brand. The description of Racers athletic shoes depicted a successful product, as it seems unlikely that a firm would extend an unsuccessful brand. Then subjects were presented with the name of the proposed extension (Racers Sportswear, Racers Bicycles, and Racers Deodorant), and asked to indicate their expectation of its success. Subjects then completed a thought-listing task and indicated their confidence in their expectation judgment. Finally, subjects completed a variety of similarity measures.

Measures

Dependent variables. Expectation of success for the proposed extension was measured with an item that asked the respondents to write a number between 0 and 100 that best represented his or her estimate of the likelihood of success for the extension, where 0 = "no chance of success" and 100 = "a certain success." Subjects rated their confidence in the expectation estimate on a 7-point scale anchored by "not very confident" and "very confident." Likelihood of trial for the extension product was measured on a 7-point scale anchored by "not at all likely" and "very likely."

Similarity. This study uses a combination of items in the previously reviewed research. Seven-point semantic differential scales were used to tap the following potential bases of similarity: the logical nature of the extension, transfer of company manufacturing skills, usage situations, company goal consistency, appropriateness for the company, shared features of the products, similarity of product users, category consistency, complementarity of use, company technical expertise, availability of necessary resources, and general similarity.

Additionally, before completing the scaled similarity items, respondents were asked to list the thoughts they had while arriving at their estimate of success for the proposed extension. This task was used to investigate the possibility that other characteristics not directly associated with category similarity entered into expectation formation as well as to identify other possible bases of similarity judgments not tapped by the scaled items.

Results

Sample

Forty-nine questionnaires were distributed, yielding 47 usable responses. Although the majority of respondents (60%) were female, analysis showed no effects attributable to gender. There were 15 subjects in the close condition, and 16 subjects each in the medium and far conditions.

Manipulation Check

It is crucial to subsequent analyses that subjects judge the fit of the stimuli as intended. Therefore, we used a 7-point global similarity item in which the subjects were simply asked to indicate the degree of similarity between the core product and their particular extension to check the fit manipulation. Post hoc multiple comparisons using Scheffé's procedure revealed significant differences between far (mean=1.38), medium (mean=3.53), and close (mean=4.50) extensions ($p \leq .10$). However, in spite of extensive pretesting, the absolute difference in scale scores (close to medium difference=0.97; medium to far difference=2.15) between the close and medium conditions was not as large as intended. One reviewer noted that the Racers brand name may be more closely aligned with the bicycles category than the second pretest indicated. This may have contributed to the observed fit manipulation problem. This partial failure of the fit manipulation is reflected in subsequent analyses: patterns of means are as expected, but several observed differences between close and medium conditions are not statistically significant.

Perceived Fit

Exploratory principal component analysis of the scaled similarity items using quartimax rotation resulted in two factors (Table 1). The two factors, labeled **Company Fit** and **Situational Fit**, explain 62% of the variance. The Company Fit factor describes a judgment of fit based on the manufacturing company. An alpha coefficient of .85 indicates that these items exhibit reasonable internal consistency. The Situational Fit factor includes those items that relate to actual usage of the extension. These items exhibited adequate internal consistency ($\alpha = .72$). This analysis shows that, within the product class used here, commonly used measures of similarity tap two dimensions of fit.

To further investigate the two dimensions for predictive power, two variables were created from the factors by summing the items for each factor and taking the mean of the summed items. The two factor variables were regressed against expectation of extension success. Regression analysis indicates that the Company Fit factor was the only significant dimension ($t=4.733$, $p \leq .05$) in predicting likelihood of success for the extension ($R^2=.345$). Further analysis of the Situational Fit factor using ANOVA revealed no significant difference in

judgments of situational fit for the three extensions ($F=1.642$, $p=.205$). One possible interpretation of these results is that situational fit is less determinant when the core and extension categories are in the same product class, as is the case here (things worn while exercising). As extensions begin to cross product class boundaries, situational similarities may assume a more important role in judgments of fit.

TABLE 1
DIMENSIONS OF PERCEIVED FIT

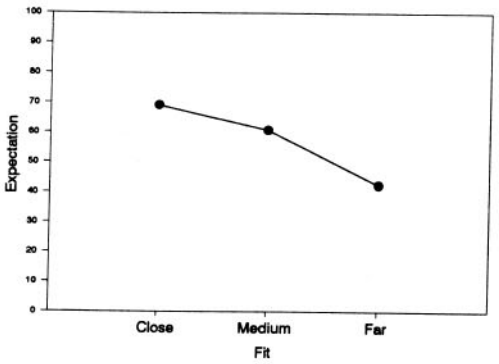
	FACTOR 1	FACTOR 2
Company's technical expertise	.84775	-.13943
Consistent with company goals	.80084	.36473
Consistent with core product	.77394	.39302
Appropriate product for company	.72571	.55790
Logical product for company	.70818	.40406
Company's manufacturing skills	.70134	-.28875
Products share same features	.69061	-.04983
Company has necessary resources	.49643	-.26142
Similar usage situations	.33321	.80210
Products are use-complementary	.02662	.68025
Similar people use products	-.00420	.64825

Intuitively, and in view of the low amount of variance accounted for in the regression analysis, it does not seem reasonable that consumers use only judgments of perceived fit when assessing the likelihood of extension success. Responses to the thought-listing task suggest this because fit-related thoughts were less frequent than expected. These responses were coded into seven categories by two judges (interrater reliability = 90%). Respondents most often mentioned (17 times) that the success of the core brand would carry over to the extension. Consumer familiarity with the brand name was cited 13 times, and competitive market characteristics (e.g., "lots of deodorant brands already") were mentioned 12 times. Lifestyle factors (e.g., "athletic wear is extremely fashionable") were mentioned 5 times. Interestingly, thoughts related to perceived fit were listed less often: situational fit (e.g., "you often use deodorant and athletic shoes while exercising") and company fit (e.g., "if Racers makes good shoes they can probably make good sportswear") were each cited 8 times, while fit of a non-specific nature (e.g., "not much of an association between athletic footwear and deodorant") was mentioned 6 times.

Expectation

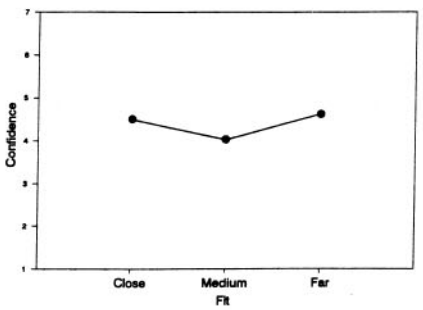
Expectation and fit. The first hypothesis predicted that as perceived fit decreased, expectation of success for the extension also would decrease. While the observed pattern of the cell means support this notion (Figure 1), an analysis of variance indicates only partial statistical support. An overall difference was found ($F = 7.849$, $p \leq .05$). Post hoc multiple comparisons using Scheffé's procedure revealed significant differences in expectation between the far extension (mean = 42.5) and both medium (mean = 60.7) and close (mean = 69.2) extensions ($p \leq .05$); however, there was no significant difference between the close and medium extensions. This may be attributable to the partial failure of the fit manipulation noted previously. It seems clear, however, that the subjects' expectations of success for the extensions do differ in the expected systematic manner.

FIGURE 1
EXPECTATION AND FIT



Confidence and fit. Hypothesis 2 predicted confidence in expectation judgments would be greater at the two extremes (i.e., the close and far conditions) than for the medium extension. Analysis of variance revealed no significant differences ($F < 1$). However, a visual representation (Figure 2) of the cell means (far = 4.69, medium = 4.11, close = 4.50) does show the expected pattern. While Figure 2 cannot be considered definitive evidence for the proposed relationship, it is suggestive. Subjects who formed an expectation for the two extremes of extension fit appear to be more confident in their judgments.

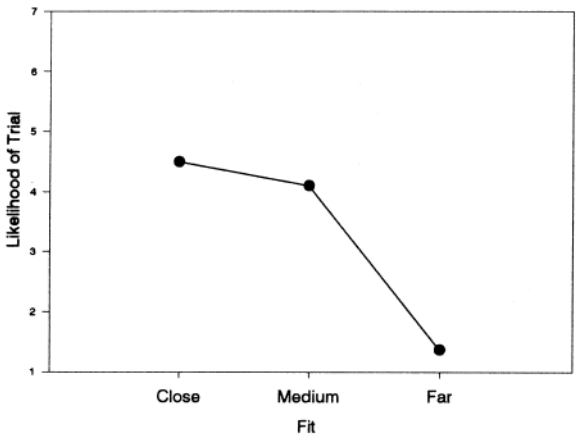
FIGURE 2
CONFIDENCE AND FIT



Likelihood of trial and fit. The third hypothesis predicts a monotonic relationship between the perceived fit of the proposed extension category and the likelihood of trial for the extension. Subjects should be more willing to try the extension as its fit with the core category improves. An overall difference was found ($F=8.508$, $p \leq .05$). Post hoc multiple comparisons using Scheffé's procedure revealed significant differences in likelihood of trial between the far extension (mean=2.38) and both medium

(mean=4.12) and close (mean=4.50) extensions ($p \leq .05$); however, there was no significant difference between the close and medium extensions. These results, coupled with the expected overall pattern of the means, lend partial support to Hypothesis 3. In view of the results of the test of Hypothesis 1, we can also infer that greater expectation of extension success is positively related to greater likelihood of trial.

FIGURE 3
LIKELIHOOD OF TRIAL AND FIT



Discussion and Future Research Issues

This study had two primary objectives. First, we sought to provide evidence that consumers form and hold inferential expectations concerning the success of an extension and that these expectations differed according to the degree of perceived fit between the extension category and core category. Despite the partial failure of our fit manipulation, some support for this premise was observed. When subjects were asked to form an expectation of extension success with minimal information (i.e., the brand name only) they did so in the predicted manner. Expectation of success for the extension was greatest when the extension category was perceived as most similar to the core category and lowest when the extension category was least similar to the core category. Subjects also expressed varying degrees of confidence in their estimations of extension success. While results of the confidence measure were not statistically significant, the observed pattern of the cell means supports the notion that the subjects tended to be more confident when expressing expectations of potential success for the two extremes of extension fit.

Second, we wished to explore the notion of perceived fit in the context of expectation formation. Results indicated that the perceived fit construct is more complex than previously thought, at least when consumers form expectations. When subjects are asked to provide estimations of extension success, the category fit judgments previously used do not seem to provide a complete explanation. Whether this holds true when subjects are asked for more conventional judgments (e.g., extension quality) is a subject for future investigation. If marketplace success is considered to be closely related to perceived quality (e.g., a low quality product might be judged as less likely to succeed in the market) our observations suggest that reliance on similarity judgments may be rather naive. Other elements that surfaced in the thought-listing task (e.g., perceived competitive market characteristics) also should receive attention in future research.

Despite its limitations (small student sample, partial failure of fit manipulation, etc.), this research is a first step in the study of consumer expectation and its relationship to brand extension success. Inferential expectations are only the first stage in the expectation formation process. Future research could focus on the process of expectation revision as more information is made available to the consumer. Theoretical notions of expectation formation as conceptualized here would seem to have close parallels in the marketplace. For example, it is not uncommon for initial new product announcements to focus on little more than brand name awareness. As demonstrated in this study, low information communications may lead to a basic inference, held with varying degrees of confidence, about the potential success of the extension. The question of interest now becomes one of the effects of additional information on the initial expectation. What are the effects of differing types of information (e.g., advertising, sales promotions, or word-of-mouth) on the expectation revision process? (See Hoch and Ha 1986; Deighton 1984). What part does confidence in the initial expectation play in the revision process? One plausible explanation is that inferential expectations held for close and far extensions are likely to be harder to modify, due to biasing effects. For example, if a consumer confidently holds an inferential expectation that a far extension will be unsuccessful, subsequent information concerning product attributes may produce little change in the initial expectation. This has interesting implications for extension introduction strategies. For example, initial promotional messages for far extensions could include extensive attribute-specific information that would, in effect, preclude the formation of expectations based on inference alone. This tactic might minimize the biasing effect proposed earlier.

Finally, although the Racers brand was described as successful in the athletic shoe category, use of an actual brand could result in expectations that differ from those observed. Other inputs to the formation of the initial expectation could come into play (e.g., promotion, word-of-mouth, and/or experience with the core product). Thus, future research should be undertaken using quasi-experimental designs in which the stimuli are actual brand names where the strength, or equity, of the brand stimuli are varied. An extremely strong brand (e.g., Coca Cola) may minimize the effects of fit and other bases of expectation judgment observed in this study.

References available upon request.

DEVELOPING AND MEASURING THE CONCEPT OF WARRANTY PREMIUM

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Abstract

The concept of warranty premium is defined and developed in terms of the risk reduction role of warranties and the signal of quality that warranties provide. The paper shows how warranty premium can be modeled and measured. The model is found to have good predictive ability in the experimental test conducted.

Introduction

There has been increasing interest in understanding the role of product warranties. Some researchers have examined warranties from a consumer perspective, analyzing the relationship between consumers' attitudes to warranties and their projected behaviors (Darden and Rao 1979), the effect of warranties on perceptions of financial and performance risks (Shimp and Bearden 1982), and whether warranties are good signals of product quality (Wiener 1985). Other researchers have described managerial warranty practices (Udell and Anderson 1968, Kendall and Russ 1975, Menezes and Quelch 1990), and some have provided guidelines for improving the effectiveness of warranty programs (Fisk 1970, Menezes and Quelch 1990).

One neglected issue, in the literature cited above, is an assessment of the value of a warranty to a consumer. Little research has been done to assess the "warranty premium", i.e., the additional amount that a customer would be willing to pay for a product with a warranty over one without a warranty. Research on understanding and assessing the value of a warranty is important for two reasons. First, research on the value of a warranty will help advance the rather limited theory that has been developed on the impact of product warranties on consumer preferences. Second, manufacturers and retailers often offer and promote their warranties based on the belief that warranties increase the value of the product and influence consumer preferences. A better understanding of and an approach to measuring the value of a warranty could help these manufacturers and retailers in their pricing decisions.

The purpose of this paper is to develop the concept of warranty premium and show how it can be modeled and measured. The validity of the derived result is then tested through an experiment.

Previous Research

In addition to the marketing literature covered in the introduction, product warranty has attracted attention in a few other areas such as management science, industrial engineering, insurance, and economics. These are now briefly reviewed.

The industrial engineering and management science literatures analyze warranties in terms of their relationship to costs (Mamer 1982, Mitra and Patankar 1988), product reliability (Heschel 1971), reserves (Amato and Anderson 1976, Menke 1969, Thomas 1989), and cash flows (Patankar and Worm 1981).

The insurance literature tends to focus on regulatory and equilibrium issues, with an emphasis on establishing equilibrium conditions. For example, Stiglitz (1977) focuses on equilibrium conditions for a monopolist while Rothschild and Stiglitz (1976) examine equilibrium conditions in competitive insurance markets. The economics literature focuses on social welfare and regulatory/legal issues. Some researchers study the sharing of liability (Brown 1974, Spence 1977), others take a social welfare and public policy perspective (Courville and Hausman 1979, Palfrey and Romer 1983), and yet others examine warranties when moral hazard problems play a central role (Cooper and Ross 1985, Kambhu 1982).

This paper adds to the literature in that it focuses on the value of a warranty to the consumer, a neglected issue in the literature.

Concept of Warranty Premium

A customer may be willing to pay a different price (usually higher) for a product with a warranty as compared to a product without a warranty, because the warranty may be perceived to be providing some value to him/her. The concept of warranty premium is introduced to capture this.

We define Warranty Premium (WP) as the amount that an individual is willing to pay for a product with a warranty (P_W) over and above the price that he/she would pay for the product without a warranty (P): $WP = P_W - P$. (By "products without a warranty" we refer to products that either have no warranty or have very short warranties, e.g., 30 days, merely to meet legal requirements and protect customers from the risks associated with purchasing a lemon.)

Warranties may provide value to customers in two major ways. First, warranties may help reduce the risk associated with the purchase of the product, and second, warranties may impact the perceived value of a product or service by providing a signal of product quality. Each of these is briefly reviewed.

Warranty as a risk reduction mechanism: The purchase of several product categories involves substantial risk, and a major role of a warranty is to reduce that risk (Shimp and Bearden 1982). Consequently, this impacts the consumer's preference for the product and his/her willingness to pay for the product. This impact depends on the risk attitude of the individual.

The warranty premium is expected to be higher the more risk averse the person is. A constant absolute risk aversion, captured by an exponential utility function, is used here because it has been used extensively by researchers and found to provide accurate predictions (Currim and Sarin 1989, Roberts and Urban 1988) and to fit data quite well (Fishburn and Kochenberger 1979). Since for payments of $x, the utility function U(x) is a decreasing function of x, the utility function can be modeled as U(x) ={1-exp(Cx)}/{exp(C)-1} for C=0, and U(x)=x for C=0, where C is the risk preference parameter. Since the absolute risk aversion r(x) = C, for a risk averse person C will be positive, for a risk neutral person C will be equal to 0 and for a risk prone person C will be negative. The warranty premium is expected to increase with the value of C.

Warranty as a quality signalling mechanism: A warranty provides an effective way for a firm to communicate to customers about the product's quality. Thus, warranties could influence the likelihood of product failure and consequently the amount that the customer is willing to pay for the product. A warranty is a good signal of product quality because it meets the requirements of an informative signal: (i) it increases manufacturer costs and (ii) these costs are systematically related to the warranty coverage and product quality (Spence 1977). Thus, consumers may perceive a positive relationship between warranty and product quality.

On the other hand, some consumers may believe that a firm with a lower-quality product and low sales may, in order to survive, enhance its warranty to attract customers to buy the product. These customers may see the firm as attempting to increase sales, achieve short-term profitability and postpone warranty costs, while simultaneously working on improving its product quality for long-term survival. These consumers will perceive there to be a negative relationship between warranty and product quality. This view is supported by some empirical evidence that, at least for some product categories, warranty coverage bears an inverse relationship to the reliability of the product (Garvin 1983).

Some consumers may perceive warranty coverage and product quality to be unrelated (Shimp and Bearden, 1982). This perception would cause warranty terms to be quite similar, despite differences in product quality. This is precisely what Gerner and Bryant (1981) found in a study of five different product categories--refrigerators, ranges, air conditioners, television sets, and washing machines.

It is thus apparent that a positive warranty-quality relationship has strong theoretical support, while negative and no warranty-product quality relationships have some empirical support. While this is an area for future investigation, in this work we consider all three possible warranty-product quality relationships and our empirical work manipulates consumers' perceptions of this relationship.

To more fully examine the nature of warranty premium we represent the product without a warranty as having some probability (α) of failure and a complementary probability ($1-\alpha$) of adequate performance. When the product works fine the cost to the consumer is the purchase price P. However, when the product fails, there is a additional cost L to repair the product. When a product fails, consumers typically incur some costs in addition to the repair costs L. These additional costs, which we refer to as transaction costs T, are the implicit costs to the consumer in terms of the inability to use the product during its failure and the time, effort, and inconvenience associated with the repair. Thus, the total cost to the customer when the product without a warranty fails is P+L+T (see Appendix). On the other hand, the product with a warranty can be represented as having some probability (β) of failure and a complementary probability ($1-\beta$) of adequate performance. Let WP represent the additional amount that the consumer is willing to pay for the product with the warranty. For a product with a warranty, if the product works fine, the cost to the consumer is P + WP; and if the product fails, the cost to the consumer is P+WP+T. (This assumes that the transaction cost T is the same whether or not the product has a warranty.)

Using utility theory we derive results for warranty premium (see Appendix):

For risk-averse and risk-prone individuals:

$$\text{Warranty Premium} = \frac{1}{C} \ln\left[\frac{e^{C(L+T)} + (1 - \alpha)}{\beta e^{CT} + (1 - \beta)}\right] \quad (1)$$

For risk-neutral individuals:

$$\text{Warranty Premium} = \alpha(L+T) - \beta T \quad (2)$$

Thus, the additional amount that a customer would be willing to pay for a product with a warranty (warranty premium) is impacted by several factors such as the risk attitude (C) of the individual, the quality signal provided by the warranty, i.e., the perceived likelihood of product failure with and without a warranty (α and β), the expected costs of product repair (L), and the cost associated with the inability to use the failed unit and the individual's time, effort, and inconvenience in repairing the failed unit (T).

Method

Subjects: The subjects were 235 MBA students at a major university. Use of students as subjects in this experiment was appropriate because the objective of the study was to test the concept and derived results, and these should be valid for all consumers, including students. Based on exploratory research and pretests, the Compact Disc Player was selected as the product to be used in the experiment.

Procedure: Subjects were first explained the nature and purpose of the study. The stated

objective was to understand and model how people make decisions under conditions of uncertainty.

Subjects were then given a questionnaire that was developed based on several pretest studies. In the questionnaire subjects were presented four scenarios, each of which indicated a probability p_i that they would incur a product related repair loss L and a complementary probability that they would incur no loss. Subjects had to indicate an amount x at which they would be indifferent between x and the gamble. The scenarios differed in terms of the loss probability, and the order of the scenarios was randomized to reduce any possible bias resulting from anchoring, assimilation, and contrast effects. These questions were used to measure the individual's risk attitude.

Next, subjects read a report on Compact Disc Players attributed to a well-known product testing publication. It described the product and rated eight brands (no brands names given) in terms of quality (reliability), warranty length, and other product features. The report established and then restated the relationship between warranty and product reliability. This relationship was manipulated across the three treatment conditions. In one condition, the study reported a positive relationship between warranty and product quality. It reported that high-quality brands had long warranties and low-quality brands had short warranties, and included a summary statement that highlighted the relationship. In the second condition, the report established a negative relationship between warranty and product quality, and in the third condition, the report established that warranty terms and product quality were unrelated.

Subjects were then presented with five pairs of hypothetical Compact Disc Player descriptions. In each pair, the two products (no brand names were given) were described in terms of warranty length (a short 30-day warranty on one and a longer warranty on the other), product failure rate (given as unknown for the product with a warranty), repair cost, and the price differential between the products. For each pair, subjects had to indicate which product they preferred, and the price differential between the two products at which they would find the two products equally attractive. Subjects were also asked to indicate their estimate of the failure probability of the product whose failure rate was given as unknown. Finally, subjects were asked a few questions to measure their involvement with the product, their level of interest in and experience with the product, their attitude toward the task, and the value of the time and inconvenience associated with having the product repaired. They were also asked some socioeconomic questions such as their age, sex, and savings.

Analyses And Results

Manipulation Check: To check the effectiveness of the warranty-quality relationship manipulation, we examined the treatment condition in which a subject was, and checked whether the subject's estimate of the failure probability was in accordance with that treatment condition. For example, if a person received a negative warranty-quality relationship report, the manipulation was deemed successful if that person estimated the failure probability of the product with a warranty to be greater than the failure rate of the product without a warranty. The manipulation was successful for 94% of the subjects.

Determination of Risk Preference Parameter: The subjects' utility functions were estimated based on their responses to questions asking for their indifference values to four different scenarios, each involving a loss of L (-$400) with probability p_i and no loss with probability $(1-p_i)$. Setting the utility of 0 equal to zero and the utility of -400 equal to -1, the utility function is modeled as:

$$U(x) = \frac{1 - e^{C(x/-400)}}{e^{C} - 1}$$

where C is the risk preference parameter. Based on the questions asked, $U(x_i) = -p_i$, and the value of C_i is obtained for each scenario by solving:

$$-p_i = \frac{1 - e^{C(x/-400)}}{e^{C} - 1}$$

Thus a value of C_i is calculated corresponding to each question. Error is allowed for by selecting a value of the risk-preference parameter that minimizes the stress of fit across all four scenarios. Based on the risk preference parameter (C), we found that 117 subjects (50%) were risk averse, 89 (38%) were risk prone, and 29 (12%) were risk neutral. The values of C ranged from -5.00 to 3.20 with a mean of -0.06. We found that the risk preference of an individual was not related to the warranty-quality relationship that the individual was exposed to ($\chi^2_4 = 0.721 < \chi^2_{4,.05} = 9.49$). The risk preference parameter did not significantly differ by sex (mean -0.13 for females and -0.02 for males).

Warranty Premium Model

The data were split into two groups; 80% to be used for calibration and 20% for validation. This percentage split of the data between calibration and validation is in line with the findings of Vonhanacker and Steckel (1990).

Model Calibration

Using the calibration data the warranty premium was estimated by OLS regression. Various nested versions of the models were estimated to see the improvement in the model by adding variables (the decision rule for adding variables was to choose that variable contributing maximally to model fit). Model improvement and quality of fit were evaluated by the F ratio.

The results (see **Table**) show that all significant parameters have the expected sign. Also, the explanatory power of the model is high, as is evident from the fit of the model WPM_5 (R^2 = .554). The signaling effect of warranties and the risk preference parameter are the most

TABLE

WARRANTY PREMIUM MODEL

Parameter Estimates (t-values)

	WPM_1	WPM_2	WPM_3	WPM_4	WPM_5	WPM_6
Constant	68.19 (36.92)[a]	70.00 (43.96)[a]	70.83 (45.58)[a]	35.34 (5.17)[a]	2.72 (.17)	1.21 (.10)
Signal	294.75 (22.00)[a]	303.59 (26.32)[a]	235.57 (16.16)[a]	231.21 (16.07)[a]	232.22 (16.16)[a]	229.81 (15.84)[a]
Risk Preference		23.83 (18.18)[a]	24.00 (18.82)[a]	23.94 (19.04)[a]	23.96 (19.10)[a]	23.95 (19.10)[a]
Transaction Cost x Signal			2.33 (7.32)[a]	2.34 (7.47)[a]	2.34 (7.47)[a]	2.48 (7.42)[a]
Failure Probability x Loss				0.57 (5.33)[a]	0.54 (5.00)[a]	0.54 (5.00)[a]
Loss					0.09 (2.17)[a]	0.09 (2.13)[a]
Transaction Cost						0.08 (1.18)
R^2 (adjusted)	0.340	0.512	0.538	0.551	0.554	0.554
F	484.230[a]	492.310[a]	354.420[a]	288.420[a]	194.140[a]	194.140[a]
Comp. F	-	330.710[a]	53.580[a]	28.450[a]	6.100[a]	1.40

[a] $p < .01$

important variables in explaining warranty premium. Transaction cost x signal (which captures the transaction premium) and failure probability x loss (which is the expected loss) are also variables that significantly improve the model and the parameter estimates have the expected sign. The next significant variable is the loss amount. However, adding the transaction cost to the model is not useful because both the parameter estimate and the improvement in the model are not significant. Thus, WPM_5 is the most suitable model and is used in further analysis:

$$\underset{(16.0)}{WP = 2.72} + \underset{(1.25)^a}{23.95\,C} + \underset{(14.37)^a}{232.22\,(\alpha-\beta)} + \underset{(.31)^a}{2.34\,(\alpha-\beta)T} + \underset{(.11)^a}{0.54\,\alpha L} + \underset{(.04)^a}{.09\,L}$$

$R^2 = .554$

a: denotes significance at the 0.01 level

To test the stability of the parameter estimates, the model was estimated after eliminating 10% of the observations and the results compared with the earlier model using the Chow test. The analysis shows that the parameter estimates are stable ($F = 0.92$, $< \text{critical } F_{90,847} = 1.00$).

For each individual we computed the warranty premium (WPC) using equations 1 and 2. The mean computed warranty premium was \$63.20, the mean actual warranty premium (WP) was \$64.82, and the correlation between the computed warranty premium (WPC) and the actual warranty premium as stated by the respondents (WP) was found to be 0.52 (significant at the 0.01 level).

Model Validation

Some validity for the proposed warranty premium model is provided by the fairly good overall fit and significant parameters with the expected sign. A better test of the accuracy of the model is to explore its ability to correctly predict the values in the validation set.

The prediction quality of the model is often measured by Theil's (1966, p 26-35) inequality coefficient U as shown below:

$$U = \frac{\sqrt{\frac{1}{n-n^*}\sum_{i=n^*+1}^{n}(WP_i - \hat{WP}_i)^2}}{\sqrt{\frac{1}{n-n^*}\sum_{i=n^*+1}^{n}WP_i^2} + \sqrt{\frac{1}{n-n^*}\sum_{i=n^*+1}^{n}\hat{WP}_i^2}}$$

Where $\hat{WP}$ is the estimated warranty premium, n is the total sample size, n^* is the number of observations in the calibration sample, and $n-n^*$ is the number of observations in the validation sample. U ranges from 0 to 1, with smaller values representing better predictions. The value of U was found to be .2720, indicating good prediction.

Another test of the predictive ability of the model was conducted with the validation data by running a regression of actual warranty premium as a function of the predicted warranty premium:

$$WP = A_0 + A_1\hat{WP}$$

and testing whether $A_0 = 0$ and $A_1 = 1$. The result of the estimation is given below:

$$WP = 2.739 + 0.976\ \hat{WP}$$
$$(4.99)\quad (0.06)$$
$$R^2 = .53.$$

Analysis shows that A_0 (2.739) is not significantly different from 0 and A_1 (.976) is not significantly different from 1 (z = 0.401).

Discussion And Conclusion

Many manufacturers and retailers use product warranties to increase the value of the product and influence customer preferences. In this paper we develop the concept of warranty premium and suggest a way to model and measure it.

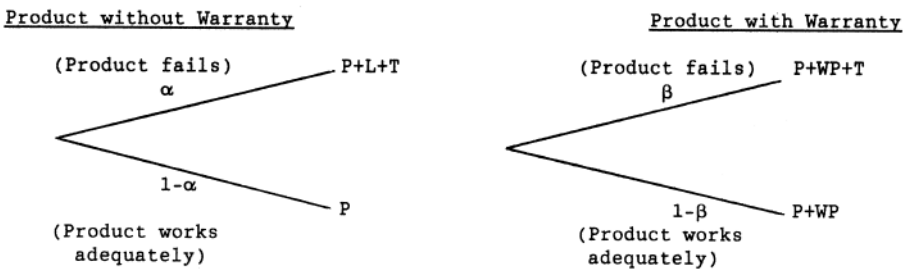
We define warranty premium and develop the concept in terms of the risk reduction role of warranties and the signal of quality that a warranty provides. Based on utility theory we derive an expression for warranty premium. The model is found to have good predictive ability in the experimental test conducted. The model and experimental study can help managers get a better handle on the value of the warranty to the consumer and how that is affected by the consumer's risk attitude, the cost of repair, the value of the consumer's time, and the signal of quality that warranty provides.

The paper provides a starting base for further research on warranty premium. There is clearly need for additional inquiry into warranty premium. One direction for future research is to decompose warranty premium into various components based on the expected loss, the risk attitude of the individual, and the quality signal that a warranty provides. A second direction is to further examine the impact on the warranty premium of the value of time and inconvenience of having the product repaired. A third area of research is to analyze the inferential processes by which consumers develop perceptions of the warranty-quality relationship and to examine how those perceptions can be impacted to increase the warranty premium.

An interesting finding of this study is that a significant number of people exhibited each risk preference: 50% were risk averse, 38% were risk prone, and 12% were risk neutral. These different risk attitudes may have been the result of the different ways in which individuals framed the warranty in their minds. A fourth area of future research is to examine how warranties can be framed and the impact of the framing on the warranty premium.

Since warranties are being increasingly used as a marketing tool by firms, a deeper understanding of warranty premium is very relevant and clearly warrants further research.

Appendix



For Risk-Averse and Risk-Prone Individuals

$$\alpha\, U(P+L+T) + (1-\alpha)U(P) = \beta\, U(P+WP+T) + (1-\beta)U(P+WP)$$

$$-\alpha e^{CP} e^{C(L+T)} - (1-\alpha) e^{CP} = -\beta e^{CP} e^{CWP} e^{CT} - (1-\beta) e^{CP} e^{CWP}$$

$$\alpha e^{C(L+T)} + (1-\alpha) = \beta e^{CWP} e^{CT} + (1-\beta) e^{CWP}$$

$$e^{CWP} = \frac{\alpha e^{C(L+T)} + (1-\alpha)}{\beta e^{CT} + (1-\beta)}$$

$$\text{Thus,}\quad WP = \frac{1}{C} \ln \left[\frac{\alpha e^{C(L+T)} + (1-\alpha)}{\beta e^{CT} + (1-\beta)} \right]$$

For Risk-Neutral Individuals

$$\alpha\,(P+L+T) + (1-\alpha)P = \beta(P+WP+T) + (1-\beta)\,(P+WP)$$
$$\alpha P + \alpha L + \alpha T + P - \alpha P = \beta P + \beta WP\ \ \beta T + P + WP - \beta P - \beta WP$$
$$\text{Thus,}\quad WP = \alpha(L+T) - \beta T.$$

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PACKAGING AND THE ENVIRONMENT: A DISCUSSION OF THE ISSUES

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Abstract

Solid waste disposal is an evergrowing problem for the United States and packaging is emerging as a focal point to reverse this trend. The paper discusses:

1. Scope and characteristics of the solid waste disposal problem with emphasis on packaging's contribution to the solid waste stream;
2. Proposal of a normative model identifying elements and stakeholders concerned with solid waste and packaging disposal;
3. The issues surrounding packaging disposal with implications for marketing.

Introduction

Solid waste disposal is looming ever larger as a major environmental problem in communities and municipalities across the nation as they are faced with swelling piles of garbage. Packaging is emerging as a focal point for community activists, environmentalists, and legislators as they try to slow down, and even reverse, the rate of growth of solid waste (Erwin and Heally 1990). Marketers are feeling the pressures to modify and adjust packaging practices to lessen its impact in the waste stream. Consumer package goods marketers, particularly in the food and soft drink industries, are at the center of the debate.

The purpose of this paper is to define and discuss a broad range of macro-issues underpinning, swirling around packaging waste to serve as an input for specific micro-studies of marketing action. To this end the paper will focus on the following:

1. Scope and characteristics of solid waste problem with emphasis on packaging's contribution to the waste stream;
2. Proposal of a normative model identifying the elements and stakeholders concerned with solid waste issues;
3. A brief discussion of macro-issues surrounding packaging waste with some implications for micro-marketing studies and actions.

Scope and Characteristics of the Packaging Waste Problem

In 1960 American consumers generated waste at the average rate of 2.65 pounds per person per day. In 1988 that figure had climbed to 4.0 pounds every day, a 52 percent increase. That's over 1400 pounds a year for every person, by far the highest in the developed world.[1] Unfortunately, the best estimates of the future show that growth of solid waste will continue until the year 2010 (EPA 1990). Traditionally consumer products and packaging waste disposal has been the responsibility of consumer/users, placing the burden for waste disposal at the "end-of-the-pipe." With 73 percent of all municipal solid waste (MSW) landfilled and 14 percent incinerated the disposal problem is extended yet further down the pipe to municipalities and waste disposers. At present only 13 percent of MSW is recycled or composted (EPA 1990).

Consumers have had little incentive to limit disposal. Some communities have taken steps to limit residential waste, but for the most part consumers are not held personally accountable, economically, for the amount of waste generated. Most consumers are charged a flat rate regardless of the amount of waste set at the curbside, one bag or twenty. Additionally, manufacturers have had little incentive to design and use materials that consider the impact of disposal. But the disposal environment is changing. As the country's landfills approach satiation, costs for solid waste disposal have started to rise, and in some communities the rise has been dramatic.[2] Paralleling rising costs have been rising emotions, pressures on politicians to "do something," a cause célèbre for activist groups, and serendipitously, an increasing awareness of the beneficence of a healthy physical environment (Erwin and Healy 1990; Hoiland 1990).

A scanning of waste disposal activity across the country reveals a hodge-podge of behavior. Without a national policy as a guide most states and many communities have taken a variety of actions to control solid wastes: from simple waste disposal study groups to comprehensive solid waste disposal plans,

[1] In densely populated areas like New York State the MSW rate was 5 pounds per person per day (Erwin and Healy 1990). Daily per person disposal rates for some other developed countries are: Japan- 2 pounds; West Germany- 2.6 pounds; Sweden- 2.5 pounds; Switzerland- 2.4 pounds; and Norway- 1.7 pounds (Hershkowitz 1987).

[2] The range is from $10 to $150 per ton and rising, with the highest costs occurring in densely populated areas along the East and West coasts, where some municipalities ship wastes many miles to the interior of the country where land is relatively cheap, populations sparse, and incomes low (NSWMA 1990b).

including outright bans on certain kinds of wastes in landfills. Nearly all of this activity is concerned with waste reduction and recycling. When local communities take things into their own hands emotions often run high as stakeholder groups frequently disagree on policies, strategies, and tactics (Brodhagen 1990; Hoiland 1990).

Packaging and containers make up a significant proportion of the solid waste stream, 31.6 percent by weight in 1988, the largest single waste category. (See **Figure 1** for a breakout by type of packaging materials in the waste stream.) Even though this percentage is down from 33.5 percent in 1970, the 48 percent increase in the MSW stream over this eighteen year period overwhelmed any relative abatement of packaging wastes (EPA 1990). Because of packaging's high visibility it is often a prime target in any program to slowdown the growth rate of solid wastes. The relative decline of packaging wastes is due in large measure to substitution of lighter materials (aluminum and plastic) for heavier materials (glass, steel, paper). Striving for lower costs was one of the major motivations not just environmental concerns (Erwin and Healy 1990). In response to the growing MSW problem the EPA has proposed an integrated waste-management system that includes source reduction and recycling (EPA 1990). This agenda has been embraced by many stakeholder groups, especially business and trade groups (Partridge 1990).

Before disposal problems can be resolved elements of the disposal environment, stakeholders and issues must be identified and evaluated. Marketers with foresight are doing just that; interfacing with other stakeholders, discussing the issues and establishing agendas for determining disposal policies and strategies of the future.

The Disposal Environment: Elements, Stakeholders, Issues

Five major elements make up the environment in which man lives, works, plays, and grows. (**Figure 2**) The biosphere is made up of air, land, water, and life forms--the natural environment. The sociosphere includes the structure of man and animals in groups. Knowledge of and how things get done is the realm of the technosphere. The creation and processes of economic exchange is the function of the econosphere. The politisphere comprises the practices and processes of humans to govern themselves in an attempt to live in some state of peace and harmony among themselves and the natural environment. These elements interact among each other, and man, the dominant factor, utilizes the resources of the biosphere as he strives for enhanced well-being (Neace 1991).

Balance among these elements is often tenuous and precarious. At times the imbalance can be devastating, or so it appears: such as the shock of an earthquake or other natural disaster; or the strife and destruction brought on by war; or the economic consequences of a depression; or man's impact on himself and other factors of the biosphere because of ignorance, carelessness, or greed. It should be noted that the elements sociosphere, technosphere, econsphere and politisphere can only exist and have being within the biosphere.

By extending Neace's (1991) macro model to include element stakeholders (**Figure 2**) its not difficult for marketing managers to envisage the multifarious character of efforts necessary to reach meaningful agreements on the issues and prescriptions of strategies regarding packaging disposal. One well-known writer of business management claims that "solutions" to such social problems can come only about when businesses become involved for economic reasons (Drucker 1984). Support for this point of view is found in the reduction of the relative amount of packaging and container wastes found in solid waste streams. Packaging lighter in weight and smaller in volume is usually less expensive to manufacture, use and ship (Erwin and Healy 1990). Similarly, stakeholder groups become involved when it is in their best interests to do so. For example, municipalities and activists groups are becoming evermore important in the development and participation of local recycling programs.

FIGURE 1. PACKAGING AND CONTAINERS IN THE MUNICIPAL SOLID WASTE STREAM, BY WEIGHT, BY MATERIAL, BY PERCENTAGE, 1986.

MATERIAL		PERCENTAGE* OF THE MSW STREAM
Paper		14.5
Corrugated Cardboard	8.1	
Paperboard	3.6	
Paper Packaging	2.8	
Glass		7.6
Plastic		4.0
Milk and Beverage	0.8	
Other Plastic Packaging	3.2	
Steel		1.9
Wood		1.5
Aluminum		0.7
Miscellaneous		0.1
TOTAL		30.3

*Percentages reflect weight after materials recovery.
Source: Franklin, Artz, Hunt 1988.

FIGURE 2. MACRO MODEL OF THE ENVIRONMENT: ELEMENTS AND STAKEHOLDERS

ELEMENTS	STAKEHOLDERS
Biosphere (Air, land, water life forms)	Animals, plants, humans
Sociosphere (Social mores, ethics, culture, social structure)	Individuals, family, community, organizations
Technosphere (Knowledge, how things get done)	Researchers, scientists, philosophers
Econosphere (Creations and processes of economic exchange)	Manufacturers, intermediaries, consumers/users
Politisphere (Governance, establishing rules for relationships)	Legislators, politicians, bureaucrats

Source: Adapted from Neace 1991.

Figure 3 is an overview of the major issues concerned with environmental pollution and waste disposal. Resolution of these issues is necessary before and waste disposal strategies can be created implemented. Waste characteristics vary from community to community, as do stakeholders, often resulting in a cacophony of words before workable disposal strategies are achieved. Even though the waste problem is national and even global in its scope disposal is most often the responsibility of the locality where it is generated. Because of packaging's visibility in the garbage pile local communities and state houses are taking aim at its reduction. The next section discusses these pollution and waste issues with particular reference to their impact on packaging.

FIGURE 3. MAJOR ISSUES IN POLLUTION AND WASTE DISPOSAL

MAN INDUCED POLLUTION	NATURAL POLLUTION
1. Production and Processing Discharge (wastes)	1. Forest fires from lightening
2. Product/Packaging (wastes/nonutilitarian)	2. Ash from volcanic eruption
	3. Fissures in the ocean bed leaking oil

MAJOR ISSUES REGARDING POLLUTION AND WASTE DISPOSAL

1. Definitions of Environmental terminology: pollution, hazardous, toxic, etc.
2. Establishments of Standards, their Measurement, and Administrative Procedures
3. Jurisdictional Disputes
4. Technologies and Methodologies
5. Economics - Costs/Benefits

Source: Adapted from Neace 1991.

Packaging and Waste Disposal Issues

Packaging comprises the activities of designing, developing and producing containers and/or wrappers and labels for enclosing products. The package often has several elements, all which are relevant to the solid waste problem: (1) primary package; (2) secondary package; (3) shipping carton; (4) outer wrapping; and (5) the label. (See Figure 4) In today's competitive environment it is almost trite to say that packaging is a powerful marketing tool. In many product categories, such as packaged foods and beverages, it is the fifth P.

Figure 4 reveals that packaging wastes can and do occur throughout the entire life of a product, adding value to the contents each step along the way while at the same time incurring costs, and as we now know, creating environmental problems as packaging wastes pile up in landfills. Now, combine Figure 4 and Figure 2, the macro model of the environment and stakeholders, and you can begin to grasp the significance of the packaging waste disposal problem for marketers. A comprehension of the issues underpins any satisfactory resolution.

FIGURE 4. CONSUMER PACKAGING: BASIC ELEMENTS, MATERIALS, FUNCTIONS AND USERS/DISPOSERS

Elements	Materials	Functions	Users/ Disposers
1. Primary Package	Paper,Plastic, Glass,Aluminum, Tin/Steel,Wood, Fabric	Products immediate container providing protection, utilization of contents and storage	Consumers
2. Secondary Package	Paper,Plastic, Wood	Protect primary package and used for display and shelving	Consumers, Retailers
3. Shipping Carton	Paperboard, Plastic,Wood	Container necessary for trans-portation storage and identification	Retailers, Whole-salers
4. Outer Wrapping	Plastic,Wood, Metal,Fabric	Permits shipping in quantity for economy	Whole-salers, Producers
5. Label	Paper,Plastic, Inks	Identifies brand/sponsor, classifies, describes(who, what,etc.)and promotes. May appear on more than one of the above	All the above

Source: Adapted from Kotler (1992).

Definitions and Taxonomy

One of the first issues confronting marketers and other stakeholders is coming to grips with the definitions and taxonomy of this new upstart discipline- waste disposal. Normally the domain of biologists and ecologists, marketers, of necessity will have to familiarize themselves with the basic terminology in order to participate in any meaningful dialogue in the search for effective and efficient waste disposal strategies. What do the terms pollution, hazardous, toxic, biodegradable and other terms that make up the basic language of waste disposal mean? For example, what does environmentally friendly mean? What does recyclable mean? Increasingly these terms are appearing on consumer goods packages. Various stakeholder groups representing all elements of the macro model are debating this issue. Outcomes of these dialogues will most likely be transitory because as new knowledge becomes available definitions will change and probably broaden.

Standards, Measurement, and Administrative Procedures

The debate on standards, measurement, and administrative procedures has marketers frustrated. It's easy to see why? A lack of national leadership on waste disposal strategy has left states and local communities fend for themselves resulting in a barrage of legislation aimed at curbing the flow of garbage to landfills. Much of this activity is targeted specifically at packaging (Erwin and Healy 1990; NSWMA 1990a). These debates often generate a significant amount of misinformation, high emotions, and sometimes, a poor understanding of the

environmental and economic impact of proposed legislation (Partridge 1990; Rathje 1990). This issue is truly a "can-of-worms," and is likely to stay that way for some time. Marketers at all levels, manufacturers, wholesalers, and retailers, should join forces and work together to develop workable, acceptable, effective, and efficient standards, measurements, and administrative procedures.

Jurisdictional Disputes

Who is responsible for the garbage and where (and how) will it be disposed? The most commonly accepted answer is the generator is responsible and it should be disposed where it is generated.[3] As noted earlier packaging wastes occur throughout the entire life of the product. (See Figure 4.) Today, the management of solid waste, and in some cases, literally, getting rid of it, is the responsibility of community or municipal waste disposers in the community where it is generated. Waste disposers do what is most expedient- they take the garbage to the nearest landfill, and when they run out of room or it becomes uneconomical they ship it to a landfill in another community, sometimes great distances (NSWMA 1990b).

Jurisdictional disputes will continue to be a problem until there is a national policy. As noted earlier most marketers support the idea of a national policy and the EPA agenda for action (NSWMA 1990a; Partridge 1990; Erwin and Healy 1990). Marketers should not overlook the importance of local legislative activity. At this point in time this is where the action is.

Technologies and Methodologies

The science of waste management is in its infancy. Not much is known about deterioration of wastes in landfills. What is "known" is controversial. For example, the scientific community is not of a single mind on which packaging material, paper or plastic, is best for or least abusive to the environment (Erwin and Healy 1990; Powell 1990; Rathje 1990). The dynamics of waste disposal technology present unique problems. As a result marketers are often unsure what to do even when intentions are noble.

Many companies have had success in developing and adopting environmentally friendly packaging concepts, such as using lighter, less voluminous materials (e.g., plastic beverage containers) and recyclable materials (such as cereal boxes made from recycled paper).

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[3] Air and water pollution present unique jurisdictional problems because the pollution often occurs in places other than where the wastes originated.

Others have not been so fortunate. For example, both Mobil Corporation (Hefty trash bags) and McDonalds (paper to plastic food cartons, food wrappers, and cups), after extensive research, adopted packaging concepts less abusive to the environment than present packaging in use only to run into a hailstorm of protests from environmental groups and state attorneys general, including a letter writing campaign from school children (Hume 1991; Lawrence 1991). Both returned to using their former packaging concepts.

So what are marketers to do? There is no one right answer or packaging strategy that will satisfy all the elements of the macro model. The science of technologies and methodologies of waste disposal is very young and dynamic. Marketers should give serious consideration to the biospheric impact of their packaging in its development, production, use, and disposal; make sure the environmental impact research is on solid ground; and be very cautious about environmental claims in external communications.

Economics-Costs/Benefits

Rising economic costs are a major reason the solid waste disposal issue is receiving the attention it is. Additionally, some stakeholder groups are questioning the "benefits" of present disposition strategies in light of their "costs" in terms of biospheric abuse.

What may appear to be a collision course between the goals of the econosphere (economics of business) and the biosphere (science of ecology) may also be a myth. Interestingly, the scientific community is in the vanguard of proposing and developing support for the concept of balanced sustainability between the econosphere and the biosphere (Repetto 1986). The point they make is sagacious: enhancement of man's well-being through specialization and exchange (economics) requires a healthy biologically diverse biosphere (ecology). The two go hand-in-glove. Cost/benefit analyses will underpin any resolution of the packaging disposal problem. Each stakeholder group brings its own values to the table to participate in the costs/benefits analysis. And conflict is not necessarily the order of the day.

Summary and Conclusions

Packaging is a major component of the growing waste streams finding their way to dwindling numbers of landfills. Their high visibility makes them a logical focal point in the debate on waste disposal solutions. Traditional, linear, "end-of-pipe," disposal policies are being challenged. As disposal costs rise and biospheric abuses heighten, stakeholder groups and politicians are foraging for ways to slow down the

burgeoning waste stream. One of the consequences of this activity is the "pushing" of responsibility for waste disposal back up-stream, to the marketers of the products and packaging.

Marketers should prepare themselves by understanding the elements, stakeholders, and issues that make up the waste environment. The major issues are intertwined and dynamic in a sometimes unforgiving disposal environment. Much of the activity to stem the flow of ever-growing piles of wastes are aimed specifically at packaging in terms of source reduction, reuse, recycling and assimilation. Packaging strategies of the future will be underpinned by environmental impact studies, including longitudinal life-costing analyses. Once the macro-environmental models are developed marketers can then analyze specific packaging strategies; for example, packaging development, reverse channels, recycling infrastructure, and environmental alliances including stakeholder participation. Marketers should be pro-active participants in resolving the packaging disposal problem. All can benefit, including the environment.

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PRODUCT BUNDLING: A NORMATIVE MODEL BASED ON AN ORIENTATION PERSPECTIVE

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Abstract

This paper synthesizes the existing bundling literature into a conceptual framework and suggests a propositional inventory for the bundling/unbundling decision. The objective is to take a first step toward building a theory of product bundling.

Introduction

Bundling occurs when two or more products (goods or services) are sold as a single package. For example, cars are sold with tires; ski packages include skis, bindings, boots, and poles; restaurants provide complete meals of appetizer, entree, dessert, and beverage; physicians perform comprehensive medical exams; and cultural and sporting events are available in a season ticket bundle.

Four types of bundling strategies are available to firms. A *pure bundling strategy* refers to selling two or more products only in a bundled package. For example, a firm might choose to sell only a "complete" computer system comprised of a central processing unit, disk drive, monitor, keyboard, software, and printer. A *pure components strategy* refers to selling products only individually. Using this strategy, a firm would sell a central processing unit, disk drive, monitor, keyboard, software, and printer, but only as separate products. A *mixed bundling strategy* refers to selling products separately as well as in a bundled package. Under this scenario, a firm sells the "complete" computer system as well as the individual central processing unit, disk drive, monitor, keyboard, software, and printer. A *half-mixed bundling strategy* refers to the case where only a few of the components are offered separately and the remaining components are offered only in bundled form. For instance, a firm would sell the central processing unit, disk drive, monitor, and keyboard as a bundled package while the software and printer would be sold as separate products. In this paper, the term *unbundling* refers to the case where a firm increases the number of product components that are sold separately whereas *bundling* refers to the increase in the number of product components that are sold as a package.

The rationale behind product bundling (pure, mixed, or half-mixed) is that it increases firm performance in creating a competitive advantage through increasing economies in providing the bundle, enhancing the opportunity for price discrimination, increasing product differentiation, increasing customer value, and/or raising entry barriers (Porter 1985).

Product bundling is used in almost every industry, but frequently it is not part of a specific and intentional strategy (Porter 1985). Instead, bundling often happens without managerial thought or analysis as a result of habit or industry tradition. On the other hand, bundling may have been a deliberate decision when a product was introduced but not strategically reviewed as the product moved through its life cycle. Unfortunately, failing to consider bundling as a strategic marketing variable has two negative implications. First, the firm may unconsciously bundle and be subject to attack by a competitor that specializes in providing parts of the bundle on more favorable terms to the consumer. Second, failing to capitalize on a profitable bundling opportunity will unnecessarily reduce the performance of the firm. Therefore, the question of when and what to bundle is indeed important (Guiltinan 1987; Jeuland 1984; Porter 1985; Wilson, Weiss, and John 1990).

Long (1984) suggests that many firms overlook the bundling strategy issue because "specific principles to describe concisely the necessary and/or sufficient conditions for bundling are not so obvious" (p. S235). The objective of this paper, then, is to take a first step toward building a theory of product bundling. [Note that the intent is to build a general theory of bundling rather than to focus on the pure versus mixed versus half-mixed bundling decision.]

Existing Perspectives in the Literature

Previous research can be dichotomized into two approaches to understanding the determinants of bundling, and these will be referred to as consumer-based and producer-based perspectives. The consumer-based literature (e.g., Adams and Yellen 1976; Burstein 1960; Dansby and Conrad 1984; Guiltinan 1987; Jeuland 1984; Long 1984; Schmalensee 1984; Stigler 1968; Warhit 1980) is based on economic theory and primarily views bundling as a price discrimination device. The basic premise underlying the price discrimination rationale for bundling is that consumers have differing reservation prices (maximum price they are willing to pay). Through product bundling, the firm is able to transfer, thus extract, the consumer surplus (the amount by which the reservation price exceeds the asking price) from the higher valued product to a lesser valued product.

Guiltinan (1987) was the first to discuss bundling strictly from a marketing perspective. He extends the economic theory of bundling in assuming that the firm operates in a competitive market. Additionally, whereas the traditional economic rationale assumes additivity (products are independent in demand--an assumption which requires the reservation price for the bundle to equal the sum of the reservation prices for the individual products), he assumes

that services, the context of his research, may have a complementary relationship (products are interdependent in demand or used in conjunction with each other). This last extension is important because it suggests that transference of consumer surplus is not the only reason why bundling succeeds; that is, bundling can work in the absence of a consumer surplus.

The producer-based literature is provided by Jain (1985), Porter (1985), and Wilson, Weiss, and John (1990). Porter (1985) suggests that bundling can create a competitive advantage through an enhanced opportunity for price discrimination as well as through increased differentiation, increased economies, and increased entry/mobility barriers.

Wilson, Weiss, and John (1990) start with the assumption that a firm offers only a bundled product and examine conditions that suggest unbundling. Growth in market size is seen as being a critical determinant of the attractiveness of unbundling. Market growth may be realized through an increase in sales volume in existing market segments due to a change in strategy (e.g., the unbundling of bundled products) or the development of new market segments. Other factors that suggest unbundling are larger unit margins when the per-unit margin for a bundle is less than the sum of any combination of per-unit margins of unbundled products) and when unbundled products can be sold at substantially lower prices.

Jain (1985) offers two interesting rationales for bundling a good with after-sales service. The first is that such bundling permits an ongoing relationship with the customer. This close relationship enables the firm to gain first-hand knowledge about the customer's needs. The second is that this strategy enables the firm to safeguard its leased products in ensuring proper care and maintenance.

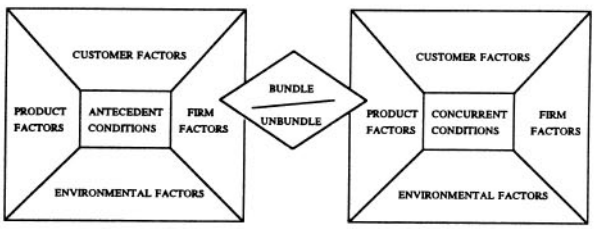
While the bundling literature provides valuable insights into the conditions under which bundling and unbundling should occur, no one conceptual effort has completely integrated the full array of bundling determinants. This paper attempts to synthesize the existing literature into a conceptual framework and propositional inventory for the bundling/unbundling decision.

Conceptual Framework

It is said that as an industry matures unbundling becomes more prominent (Jackson 1985; Porter 1985). For example, the first computers were packaged as a computer, peripherals, software, and training bundle. Porter claims that the tendency to unbundle a product over time is due to changes in the competitive advantages and risks of bundling. More specifically, Wilson, Weiss, and John (1990) believe that unbundling becomes more likely because of interfirm diffusion of technology and the evolution of standards. Therefore, a model of bundling should reflect this temporal sequence.

The two-period model in **Figure 1** utilizes a time orientation perspective (Evans and Beltramini 1987) suggesting that numerous antecedent factors serve to orient the firm prior to the initial bundling decision. The decision to bundle or not to bundle is a function of customer, environmental, firm, and product factors that interact to form a variety of antecedent conditions. As time passes and the industry evolves, the presence of concurrent influences may impact the original decision, calling for a change in strategy. A firm that originally practiced bundling may no longer find it advantageous to do so. In that event, unbundling should occur. Or the firm that originally chose a pure components strategy may decide to now bundle. The open diagonal in the bundle/unbundle box implies that this decision is not final or irreversible. The firm must continuously assess the do not bundle/bundle/unbundle decision from a competitive advantage perspective.

FIGURE 1
MODEL OF PRODUCT BUNDLING



Antecedent Conditions

The framework presented in **Table 1** identifies the most important customer, environmental, firm, and product factors that make a bundling strategy attractive. It is assumed that at this stage the firm is making its initial decision on bundling, so only those factors favorable to a bundling strategy are discussed. In the absence of these factors, the firm should sell products individually.

TABLE 1
ANTECEDENT CONDITIONS FAVORABLE TO BUNDLING

Customer Factors
· Consumer surplus on at least one product is transferable to other products in the bundle (Adams and Yellen 1976; Burstein 1960; Guiltinan 1987)
· Perceived search economies--customers save time and effort in a single point of purchase (Guiltinan 1987; Lawless 1991; Oxenfeldt 1966; Porter 1985; Wilson, Weiss, and John 1990)
· Bundle is perceived as less risky (Kenney and Klein 1983; Porter 1985)
· Number of buyers is relatively small (Palfrey 1983)

- Demand for bundled products in interdependent (Guiltinan 1987; Long 1984; Warhit 1980)
- Concern for resale value of leased products (Jain 1985)

Environmental Factors
- Competitors cannot duplicate bundle because of proprietary control (Porter 1985; Telser 1979; Warhit 1980)
- Lack of unbundled competitors (Porter 1985)
- Entry barriers are high which restricts access of specialist firms (Berman and Dunn 1987; Porter 1985)

Firm Factors
- Economies reached in providing the bundle due to standardization, scale, sharing, and/or learning (i.e., Guiltinan 1987; Hanson and Martin 1990; Porter 1985)
- Opportunity for price discrimination (i.e., Adams and Yellen 1976; Guiltinan 1987; Schmalensee 1984)
- Larger firms may have broader product lines and operate in more numerous and diverse environments which make bundling more feasible (Lawless 1991)
- Proper care and maintenance of leased products is important (Jain 1985)
- Bundling results in increased differentiation (Porter 1985)

Product Factors
- Products are complements (i.e., Guiltinan 1987; Lawless 1991; Oxenfeldt 1966; Porter 1985; Schmalensee 1984; Tellis 1986; Warhit 1980; Wilson, Weiss, and John 1990)
- Bundling optimizes package performance (Dansby and Conrad 1984; Guiltinan 1987; Oxenfeldt 1966; Porter 1985; Wilson, Weiss, and John 1990)
- Perishable product or purchase occasion (Tellis 1986)
- Leased or technologically sophisticated products (Jain 1985)
- Services (Cready 1991)
- Product has many components (Lawless 1991)

Concurrent Influences

As stated earlier, unbundling tends to become more prominent with industry maturity. This tendency to unbundle over time is due to changes in customer, environmental, firm, and product factors that effect the competitive advantages and risks of bundling (Porter 1985). For example, in the computer industry the diffusion of technology (i.e., loss of proprietary control) and the evolution of product standards (i.e., consumers found it easier to self-assemble the bundle as the components became relatively standard throughout the industry) often made a bundling strategy inappropriate. Therefore, with industry evolution it is imperative that concurrent conditions be monitored to maintain the optimal bundling strategy.

Table 2 indicates concurrent influences that suggest that the firm should unbundle its products. It is assumed that the firm initially chose a bundling strategy, so only those factors favorable to unbundling are discussed. In the absence of these factors, the firm should continue to bundle.

TABLE 2
CONCURRENT INFLUENCES FAVORABLE TO UNBUNDLING

Customer Factors
- Buyer ability (technological, financial, and/or administrative) to assemble the bundle increases or the task of bundling self-assembling it is simplified (Porter 1985; Wilson, Weiss, and John 1990)
- Perceived risk of self-assembly is lower (Porter 1985)
- Buyer needs become more divergent (Jeuland 1984; Porter 1985; Wilson, Weiss, and John 1990)
- Increasing number of price-sensitive buyers (Porter 1985)
- Buyers want to reduce dependence on one supplier (Wilson, Weiss, and John 1990)
- Many buyers (Palfrey 1983)
- Presence of powerful, capable buyers (Porter 1985)

Environmental Factors
- Lower entry barriers (Porter 1985)
- Intense industry rivalry (Porter 1985)
- Appearance of specialists who provide parts of the bundle on more favorable terms (Porter 1985)
- Economic downturn (Jain 1985; Porter 1985)

Firm Factors
- Performance and cost benefits eroded (Porter 1985)
- Per-unit margin for bundled system is less than the sum of per-unit margins on unbundled components (Wilson, Weiss, and John 1990)
- More growth in sales volume from unbundling (Porter 1985; Wilson, Weiss, and John 1990)
- New market segments emerge from unbundling (Wilson, Weiss, and John 1990)

Product Factors
- Bundling no longer optimizes product performance (Dansby and Conrad 1984; Porter 1985; Wilson, Weiss, and John 1990)
- Product and/or technological standardization occurs (Porter 1985)
- Unbundled products are markedly cheaper (Wilson, Weiss, and John 1990)

Research Propositions

It should be kept in mind that the propositions to be discussed in this section do not cover all the determinants of bundling which are listed in Tables 1 and 2; for brevity, only a sample of propositions is presented.

Customer Factors

From the firm's point of view, the two most salient customer factors that suggest the use of a bundling strategy are transference of consumer surplus and enhancing buyer value. Bundling is attractive when the consumer surplus from one product is relatively large and is readily transferable to another product in the bundle. The likelihood of such transference is enhanced if bundled components are viewed by customers as complements.

P1a: The greater the size and transferability of the consumer surplus margin and the perceived complementarity of bundled products, the greater the likelihood that bundling should occur.

On the other hand, as an industry evolves, buyers may become more price-conscious; if so, consumer surplus margins may decrease and/or it may become more difficult to transfer a surplus from the more highly valued product to less valued products in the bundle.

P1b: An increase in the price-consciousness of consumers ought to increase the propensity to unbundle.

From the consumer's perspective, perceived buyer value may be enhanced in several ways through bundling. First, recent research indicates that reducing non-monetary costs, such as time and effort, is a pivotal concern of consumers. Information theory suggests that consumers will engage in search behavior as long as the marginal gains from this activity exceed the marginal costs. For the consumer who attaches high opportunity costs to search behavior, purchasing a bundle may be means of reducing search costs. One-stop shopping eliminates the need to compare alternatives and self-assemble the bundle. Second, customers who have relatively little knowledge about the product may view a single point of purchase as less risky as components of the bundle will work properly and be covered by a single warranty.

P2a: The greater the perceived search costs and risk of purchase by customers, the greater the likelihood that bundling ought to occur.

However, with industry maturity consumers tend to become more familiar with products, thus the perceived risk of self-assembling the bundle is lower. Buyers might find it easier to assemble the bundle themselves because of experience, simplification of the task, or brand quality becomes known.

P2b: The propensity to unbundle should increase with an increase in buyer ability or willingness to self-assemble the bundle.

Environmental Factors

First and foremost, bundling is a viable strategy only when government regulations permit it. Perhaps the strongest case can be made for bundling when competitors cannot duplicate the bundle due to the firm's proprietary control. Short of this control, a bundling strategy is often workable when the industry consists of competitors selling only bundled products and when there are formidable barriers that inhibit the entry of unbundled competitors.

P3a: Proprietary control, lack of unbundled competitors, and/or the presence of high entry barriers ought to increase the propensity to bundle.

As an industry matures, barriers to entry may lower, thus increasing competition. With lower barriers to entry, specialized firms that provide parts of the bundle on more favorable terms may appear.

P3b: With the lowering of entry barriers and the increasing of competition, the likelihood of unbundling should increase.

Firm Factors

The appropriateness of bundling from the firm's point of view centers on whether this strategy will create a competitive advantage. First, bundled products may enable the firm to gain a cost advantage through economies of scale, sharing, and/or learning. A bundled product is, in essence, a standardized product that may cost less to produce than several "customized" products. Shared economies of scale can be reached as all parts of the bundle are guaranteed equivalent volume. Second, if customers have differing price sensitivities for parts of the bundle, then the firm may choose to offer the bundle at a price that is incrementally low when compared to the price of the individual components. This price discrimination activity enables the firm to realize increased revenues in swaying buyers to purchase the entire bundle at a "discount" even though they would not purchase all the parts individually.

P4a: If bundling enables the firm to lower its costs and/or if customers have differing price sensitivities for parts of the bundle, then the likelihood of bundling should increase.

However, with the maturing of an industry, cost advantages may erode due to increasing competition. For example, a specialist focusing on one part of the bundle may achieve a cost advantage in avoiding the coordination costs sustained by a bundled competitor. Competition from specialists, coupled with the emergence of new markets for unbundled products, may mean that a sales volume increase will be realized only if an unbundled strategy is pursued.

P4b: As cost and performance advantages associated with bundling erode and as new market segments emerge for unbundled products, the propensity to unbundle ought to increase.

Product Factors

The two most salient product factors that favor bundling are complementarity and optimized package performance. Bundled products that are complements make the inherent "cross-selling/buying" a much easier task. Furthermore, package performance is more likely to be enhanced when products are complements as consumers may believe that a single point of purchase enhances product performance because the bundle results in greater compatibility between and reliability for the bundle components.

P5a: The propensity to bundle should increase as product complementarity and bundle performance increase.

On the other hand, if industry evolution means product and/or technical standardization occurs, and the bundled product no longer offers superior product performance, then unbundling is more likely. Even if bundled products offer better performance, if unbundled products can be sold at considerably cheaper prices, then unbundling may encourage the growth of new market segments that are willing to assume the risks and search activities required in self-assembling the bundle.

P5b: As product and/or technological standardization increase, package performance decreases, and/or the price of the bundle components decreases, the propensity to unbundle ought to increase.

Discussion

The propensity of firms to overlook the bundling option may be due to the lack of a comprehensive framework for product bundling determinants. It is hoped that the conceptual model and propositional inventory presented in this paper will provide a framework for future research efforts in product bundling. For example, while the propositions suggest that the presence of certain conditions should favor bundling or unbundling, the issue of weighting the individual factors relative to one another has not been discussed. Furthermore, this paper has focused on building a general theory of bundling; future efforts might extend this model to incorporate specific bundling strategies.

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AN EXPLORATORY INVESTIGATION OF PERCEPTIONS OF ODD AND EVEN PRICING

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Abstract

The strategy of odd pricing, although common among retailers, has not received much attention from researchers. This study explores the perceptions of test subjects of odd and even prices at various price levels. Differences in perceptions were found in both high and medium price level products which were priced odd and even. Managerial implications are discussed and future research questions are developed.

The use of odd pricing, pricing an item at $9.99 rather than $10.00 for example, is frequently used by retailers (Berman and Evans 1986). Despite the use of this technique however, its effectiveness is mostly a matter of speculation (Schindler 1984).

Many believe consumers focus upon the dollar portion of a price and ignore the cents portion. Thus, by pricing an item below the even dollar amount, the retailer will lower the perceived price by one dollar.

Lambert (1975) examined this belief by asking respondents to give an estimate of the monetary value of a set of products which was either even or odd priced. He found no consistent evidence to support the belief. Schindler and Wiman (1983) however, did provide support for the "rounding down" effect. They asked respondents to recall prices they had seen two days earlier and found that respondents were more likely to underestimate odd prices than even prices.

Schindler (1984) conducted an experiment which tested whether consumers' tendency to notice a price increase in odd prices differed from their tendency to notice a price increase in even prices. Respondents were shown pictures of products which were given either odd or even prices. Two days later, the respondents were shown the same pictures with half of both the odd and even prices increased and the other half unchanged. The respondents were asked to indicate for each product whether or not the price had changed from the price they had seen two days earlier. The results showed that the respondents were less likely to notice the price increases in the odd priced products than in the even priced products. Evidence indicated that this was due to a poor memory for odd prices and to a bias toward judging that the odd prices were not the ones that had increased. This study demonstrates that consumers may have a lower awareness of a price increase for odd prices. However, the literature is sparse concerning whether consumers' perceptions of odd prices differ from their perceptions of even prices.

Research Objectives

This study explores the perceptions consumers have of odd and even prices. The first question this study investigates is does the use of odd pricing create the perception of a bargain in the minds of consumers? Evidence from previous research suggests that odd pricing results in a greater perception of a bargain than does even pricing.

The second question this study investigates concerns the definition of "odd" price. If consumers do perceive a difference between odd and even prices, is this difference the result of rounding down from the even dollar price or is it a result of the price ending in an odd or an even number? Odd pricing has been viewed as setting prices marginally below an even dollar price (Evans and Berman 1986). Thus, reducing price one cent will result in a price ending in an odd number and reducing price two cents will result in a price ending in an even number. Although both these prices are referred to as odd prices, is there a difference in the perceptions of rounding down to an even number compared to rounding down to an odd number? Previous research provides little evidence concerning this relationship.

A third question this study examines is does the relative price of a product influence consumers' perceptions of odd and even prices? The perception of odd and even prices for high priced products are expected to be different than the perceptions of odd and even prices for low priced products.

Methodology

The present study examines perceptions of products which are odd priced and compares them to the perceptions of products which are even priced. Undergraduate business students at a New England College were used as subjects in this study. Each subject was given a package of information containing an advertisement for a low priced product (no more than $5.00), an advertisement for a medium priced product (not over $30.00), and an advertisement for a high priced product (not over $200). The advertised products were a bottle of Tylenol - low price, a Sony Walkman cassette/radio - medium price, and a camera - high price.

The advertisements for each product were identical except for the price in the ad. Three price treatments were used for each product, an even dollar price

($5.00, $30.00, $200), an odd price one cent below the even dollar price for the low and medium priced products and one dollar for the high priced product ($4.99, $29.99, $199), and an odd price two cents below the even dollar price for the low and medium priced products and two dollars for the high priced product (4.98, $29.98, $199). The price treatments were randomly assigned to subjects. The two odd-priced conditions were included to be consistent with the Schindler (1984) study and to evaluate the second research question.

Subjects were instructed to answer several questions after viewing each advertisement. The seven questions the subjects were asked to respond to are identified in Tables 2-4. Four items (nos. 1,2,6,7) were included to measures subjects perception of products in the advertisements. Buying intention (item 5) and prior experience with the product (items 3,4) were also measured. Demographic characteristics of subjects were also obtained.

Results

Thirty one subjects were included in the study. Each subject evaluated three advertisements resulting in 91 usable evaluations. Each subject evaluated one product at each price level. The price treatments, even price, odd-odd "9," and odd-even "8," were randomly assigned resulting in the distribution of evaluations over price levels and price treatments presented in Table 1.

TABLE 1
DISTRIBUTING OF EVALUATIONS

	Price Treatment		
Product Category	Even	Odd-Odd	Odd-Even
Low Price	10	14	7
Medium Price	7	14	9
High Price	8	14	8

All subjects were full time undergraduate students attending Bryant College, located in northern Rhode Island. They were juniors or seniors enrolled in a consumer behavior course. Sixty four percent of the subjects were female and the average age of the subjects was 20.14 years.

ODD and EVEN Pricing

Comparisons of the evaluations of all products priced even to all products priced odd are presented in Table 2. For these comparisons, products priced odd-odd (9") and products priced odd-even (8") were grouped together.

TABLE 2
EVEN AND ODD PRICE COMPARISON

ITEM	Even Price	Odd Price	t-Value	P
1. This product at this price is a terrific bargain *	4.12	3.85	1.12	NS
2. This product is probably on sale *	4.64	3.76	2.35	0.05
3. I usually buy the lowest priced brand available *	4.96	4.62	0.82	NS
4. When shopping I always compare prices *	2.56	2.84	0.73	NS
5. Likelihood of buying this product after seeing this ad is **	4.28	4.05	0.66	NS
6. Is this product priced higher or lower than expected ***	3.76	3.94	0.61	NS
7. This product at this price is a good value *	3.92	3.76	0.48	NS

* - 7 pt. scale (1 - strongly agree; 7 - strongly disagree)
** 7 pt. scale (1 - extremely likely; 7 - extremely unlikely)
*** 7 pt. scale (1 - much higher; 7 - much lower)
NS - Not significant at P = .10

For only one item, No. 2 "This Product is probably on sale," was there a significant difference (.05) in responses between even priced and odd priced products. Odd priced products were perceived more as being on sale than even priced products.

ODD-ODD and ODD-EVEN Prices

Table 3 presents the mean responses to each item for all products price odd-odd (9") and all products priced odd-even (8"). Test for differences between mean responses demonstrated no significant difference in responses for any item.

TABLE 3
ODD PRICE COMPARISON

ITEM	Odd/Odd Price	Odd/Even Price	t-Value	P
1. This product at this price is a terrific bargain *	3.84	3.87	0.22	NS
2. This product is probably on sale *	3.79	3.70	0.43	NS
3. I usually buy the lowest priced brand available *	4.61	4.63	0.14	NS
4. When shopping I always compare prices *	2.70	3.04	0.75	NS
5. Likelihood of buying this product after seeing this ad is **	3.96	4.17	0.49	NS
6. Is this product priced higher or lower than expected ***	4.05	3.79	0.72	NS
7. This product at this price is a good value *	3.77	3.75	0.16	NS

* - 7 pt. scale (1 - strongly agree; 7 - strongly disagree)
** 7 pt. scale (1 - extremely likely; 7 - extremely unlikely)
*** 7 pt. scale (1 - much higher; 7 - much lower)
NS Not significant at P = 0.10

ODD and EVEN Prices by Price Level

The influence of odd or even prices on the perception of products in different price categories is demonstrated in Table 4. Tests for difference between mean responses for the price treatments (Even,Odd), were not made because of the small number of subjects (n=31) relative to the number of comparisons (21).

TABLE 4
PRODUCT PRICE LEVEL COMPARISON

ITEM	Product Price Range	Even Price	Odd Price	Diff.
1. This product at this price is a terrific bargain *	Low	3.50	3.33	0.17
	Medium	5.42	3.80	1.62
	High	3.87	4.39	-0.52
2. This product is probably on sale *	Low	4.20	3.23	0.97
	Medium	5.85	3.98	1.87
	High	3.87	4.00	-0.13
3. I usually buy the lowest priced brand available *	Low	5.10	4.50	0.60
	Medium	5.00	4.15	0.85
	High	4.75	5.25	-0.50
4. When shopping I always compare prices *	Low	2.90	2.27	0.63
	Medium	3.28	2.67	0.61
	High	1.50	3.50	-2.00
5. Likelihood of buying this product after seeing this ad is **	Low	4.20	3.96	0.24
	Medium	5.00	3.35	1.65
	High	3.75	4.78	-1.03
6. Is this product priced higher or lower than expected ***	Low	4.60	4.65	-0.05
	Medium	2.57	3.95	-1.38
	High	3.75	3.50	0.25
7. This product at this price is a good value *	Low	3.40	3.33	0.07
	Medium	4.86	3.65	1.21
	High	3.75	4.28	-0.53

* - 7 pt. scale (1 - strongly agree; 7 - strongly disagree)
** 7 pt. scale (1 - extremely likely; 7 - extremely unlikely)
*** 7 pt. scale (1 - much higher; 7 - much lower)

For low priced products, there is little difference in mean responses between odd and even prices. At the medium price level, even priced products appear to be priced higher than expected and higher than the expectations for odd priced products (item 6). Odd priced products are perceived as a better value tan even priced products (item 7), odd priced products are more strongly perceived as being on sale than even products (item 2), and odd priced products are perceived as more of a bargain than even priced products (item 1). At the high price level, greater comparisons shopping occurs with even priced products compared to odd priced products. Subjects also reported they were more likely to buy a odd priced product than an even priced product at the medium price range while being more likely to buy a even priced product than an odd priced product at the high price range.

Discussion

The results of this preliminary study lend partial support to the actions of many retailers. Consumers perceive products priced odd as being on sale compared with even priced products. This is particularly true for low and medium priced products. Odd pricing did not however, have a significant impact upon other dimensions measured.

No significant differences in perceptions of products whose price ended in "8" and those ending in "9" was discerned. This suggests that differences between odd and even prices are due to the "rounding down" effect and not to price ending in an odd or even number.

The most consistent findings relate to consumers perceptions of odd and even pricing of products at different price levels. This is not surprising since price consciousness and shopping orientation will vary, in part, based upon the price-level of the product.

For medium priced product, those priced above $5.00 but not above $30.00, subjects perceived odd-prices to portray a lower price than what they expected and to be a better value than even-prices. Subjects also perceived odd prices to reflect the product being on sale and the product as being a bargain. This supports the notion that if a retail establishment generally wants to portray a bargain image, an odd-pricing strategy should be used primarily for low and medium price level products.

For high-priced products, even pricing appears to relate to comparison price shopping. Respondents indicated less of a tendency to comparison shop for odd priced products.

These findings support Schindler's (1984) conclusion that consumers are more likely to forget an odd price than the corresponding even price. This poorer memory for odd prices probably accounts for their tendency to not price-comparison shop for odd-priced products.

Most laboratory tests of the effects of price-ending on a willingness-to-buy measure have found either no effects (Schindler andWiman 1983; Schindler 1984) or only limited effects (Della Bitta, Monroe and McGinnis 1981). The present study shows that willingness-to-buy appears to vary with type of product. Subjects indicated that they were more likely to buy a medium-priced product when priced oddly and more likely to buy a high-priced product when priced evenly. This relates back to the price-comparison shopping dimension. Perhaps subjects' greater willingness to buy a high-priced product when priced evenly is related to the indicated greater desire to comparison shop when purchasing high-priced items (as opposed to medium- or low-priced items). If, as mentioned, consumers are more likely to remember even prices, then comparison shopping is facilitated.

Limitations

There are several limitations with this study which future research should address. The first concerns the measurement instrument and procedure. Only two items were used to measure prior buying behavior and only one item was used to measure purchase intention. The use of multiple items would improve the validity of these measures.

A second limitation is with the sample used. Although students have been used extensively in previous research, they may have common experiences which would bias their responses. Using business students would tend to accentuate this bias. The number of subjects in this study is also small. Both these factors tend to limit the ability to draw conclusions and to generalize to a broader population.

Future Research

In addition to replicating the present study using a larger and more represntative sample, a number of implications for future study are apparant.

A notable pattern that has emerged from the responses is that response differences between odd and even prices vary across products priced at different levels. Future research should attempt to discern whether these differences reflect broad price ranges or relate to specific product classes.

Many retailers vary the strategy of odd pricing with the general price level of the product involved. For example, products with low per-unit prices are odd priced at one or two cents reduction while products ranging in price from $10 to $20 tend to be odd priced at a greater reduction, five cents. For higher priced products, the reductions are greater. Does the magnitude of the reduction from the even price alter consumers perceptions of the product?

Finally, how does the perception of odd pricing relate to characteristics of the consumer? Does age, social class, education have a role in perception of odd pricing?

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A STUDY OF THE RELATIONSHIPS BETWEEN HOSPITAL ADVERTISING PRACTICES AND HOSPITAL CHARACTERISTICS

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Health care costs are expected to account for 13 percent of the Gross National Product in 1996, an increase from 11.1 percent in 1988. Currently, advertising expenditures constitute nearly $1 billion in outlays for the hospital industry and account for almost half of the marketing budgets of U.S. hospitals (Johnsson 1990). The size of these expenditures make advertising a very important consideration of hospital administrators. In 1989 and 1990, hospital advertising budgets rebounded from a spending slump which began in late 1987, and appear not to have been adversely affected by the current advertising recession.

The largest advertising budgets are generally found in hospitals with more than 400 beds and in Western and Southern states (Streiber 1990). Even though advertising budgets are increasing, many hospitals are closing because of rising costs and increased competition. In a survey of 2,600 health care leaders by Arthur Anderson & Co. and the American College of Health Care Executives, 240 hospitals are projected to close from 1991-93 and another 200 from 1994-96.

Most hospitals recognize the need for and value of advertising their services. Advertising seems to have become the "weapon of choice" in a battle for survival and market share. Recent studies show that the majority of consumers approve of hospital advertising, but believe hospital choice is influenced primarily by their physicians and the location of the hospital (Malhotra 1983; Fisher and Anderson 1990). Even so, another study concludes that consumers believe hospitals should advertise in order to inform the public of available services (White 1990). These findings are not inconsistent if they indicate an increasing involvement of patients in health care decisions.

Over the past few years, hospitals have become more innovative and sophisticated with their advertising programs by promoting services that are important to consumers such as trauma/ emergency room facilities, women's health care, cardiac care, out-patient surgery, and drug/ alcohol treatment centers. Also, hospital advertising has become more product/service directed and less institutional/image oriented.

Even with larger marketing budgets and more sophisticated advertising, experts do not predict an easy road ahead for hospitals. The dominant force impacting all health care organizations in the 1990s is increasing cost (Wong 1990). Although a multitude of cost containment procedures are being introduced, medical costs are expected to continue to increase at an annual rate of 8-11%

Although hospitals have attempted to increase patient volume, occupancy rates have reached record lows. Occupancy rates of 50% or lower are common, due, in part, to the increases in outpatient services. In view of all this, Schlossberg (1990) wrote that "when the '90s are over, health experts predict there will be fewer hospitals, higher care costs, tighter cost controls and a new hero in the health care industry: marketing." With all the problems hospitals face, many are looking to marketers to provide direction and growth. The key word for hospital marketing executives during the 1990s will be "accountability" (Droste 1989). Little and McDermott (1988) also point out the increasing importance of measuring cost effectiveness of marketing activities.

In a study of hospital marketing executives, two-thirds of them identified "market development" as a high priority, while half indicated "product/service development" as an important goal. "Market penetration" followed as a significant objective (Little and McDermott 1988). According to a recent study funded by the National Center for Health Service Research and Health Care Technology Assessment (Hospitals, Sept. 5, 1990), strategic re-orientation is key to hospital survival. Hospital advertising is likely to become more important in any re-orientation.

Objectives

The purpose of this study was to assess the practice of advertising in hospital marketing programs. In particular, the primary research objectives were to:

1. determine the advertising practices used by hospitals; and,
2. examine the relationships between the practices and selected hospital characteristics.

In addition, secondary objectives were to determine the methods used by hospital administrators to measure the effectiveness of their advertising and their perceptions of the major problems facing hospital advertising.

Methodology

The sample for this study was selected from a listing of hospitals in five western states. A total of 435 questionnaires were mailed to administrators responsible for advertising at the hospitals. Responses were received from 189 hospitals, but 40 of those that returned questionnaires indicated that they did not advertise. Thus, a useable sample size of 149 was obtained.

The questionnaire was divided into two parts. Part I included questions on hospital characteristics such as the number of beds, type of hospital, occupancy rate, the number of direct competitors, the population of the service area,

and whether the hospital is part of a multi-hospital system.

Part II of the questionnaire provided information on advertising practices, methods of measuring advertising effectiveness, and perceived problems with hospital advertising. Information was requested on variables such as the methods of establishing budgets, the use of advertising agencies, media selection, and advertising content emphasis.

Results: Hospital Characteristics

Table 1 shows the major characteristics of the responding hospitals. More than half (56.3%) are non-government, not-for-profit institutions. Also, more than half (52.4%) operate as part of a multi-hospital system. The majority classified themselves as general medical and surgical hospitals. Nine different types of specialty hospitals responded. The most frequently mentioned specialties were psychiatric, chemical dependency, children, and physical rehabilitation.

TABLE 1
HOSPITAL CHARACTERISTICS

Part of Multi-hospital System? (n = 147)	Percent
Yes	52.4
No	47.6
How is Hospital Classified? (n = 144)	**Percent**
Government, non-federal	21.5
Government, federal	.7
Non-government, not-for-profit	56.3
Investor owned, for profit	16.0
Other	5.6
Type of Hospital? (n = 147)	**Percent**
General Medical & Surgical	81.9
Specialty	18.1
Number of Beds in Hospital? (n = 147)	**Percent**
50 or fewer	38.1
51 - 150	32.6
151 - 300	14.3
More than 300	15.0
Primary Service Area? (n = 149)	**Percent**
20 miles or less radius	26.8
21 - 40 mile radius	22.8
More than 40 mile radius	50.3
Population of Service Area? (n = 147)	**Percent**
Less than 200,000	68.7
200,000 - 600,000	19.7
Greater than 600,000	11.6
Direct Competitors? (n = 149)	**Percent**
None	23.5
1 - 2	47.6
3 - 4	19.5
More than 4	9.4
Occupancy Rate? (n = 130)	**Percent**
Less than 25%	17.0
25 - 50%	39.5
51 - 75%	36.4
Greater than 75%	7.1
Walk-in Clinic Away From Hospital? (n = 148)	**Percent**
Yes	36.5
No	63.5

At first, it was surprising to see that over 50% of the respondents considered their primary service area to have more than a 40-mile radius, and that 71.1% indicated two or fewer direct competitors. However, when one notes that 68.7% of the hospitals are located in service areas with populations under 200,000, the results would be expected. There are few major metropolitan areas in the states covered in the survey, and the distance between small cities is often more than 75 miles.

Other findings show that the number of beds in the hospitals ranged from six to 1,818, with a median of 77. The reported occupancy rate had an incredible range of 3-93%, with a median rate of 50%. Walk-in clinics at locations other than the hospital are operated by 36.5% of the hospitals.

Finally, in those hospitals that are part of a multi-hospital system (52.4%), the advertising was handled as follows:

Entirely by Headquarters:	18.5%
Entire by Individual Hospitals	50.6
Split	30.9

Results: Advertising Practices

Only 37% of the advertisers use an outside advertising agency. Table 2 shows the services performed for the hospitals by outside agencies. Apparently, even when a hospital uses an advertising agency, it does not rely on the agency for the full range of services available. Of the hospitals that use an agency, 72% pay for agency services on a fee basis. This finding is not surprising when it is noted that the median size of the advertising budget for media and production is only $35,000.

Table 2 also shows how the hospitals determine their advertising budgets. As shown, over 75% use either an objective and task method or rely on executive judgment. Hospital administrators say that they pay little attention to competitive expenditures when setting their own budgets, yet, as discussed below, there is a very significant relationship between the size of the advertising budget and the number of competitors a hospital has. When asked how they divided their budget between institutional (image) and product/service advertising, the split was 36.7% and 63.3% respectively.

More than 25 particular services were mentioned as being emphasized in their advertising. The services most frequently mentioned were emergency, obstetrics, mammography, physician referral, and substance treatment.

Table 2 also shows how the hospitals allocated their budgets to various media. These percentages should be viewed cautiously because of the range of hospitals sizes and their advertising budgets. For instance, only 34% of the respondents used any television, while 97% used newspapers. Curiously, 21% reported that they did not use the Yellow Pages. When asked which media worked best for their hospital, the respondents said, in order of the number of mentions,

newspapers, television, and direct mail.

Advertising expenditures were allocated evenly across the four quarters of the year. This was expected since the demand for most hospital services exhibits a constant pattern.

TABLE 2
ADVERTISING MANAGEMENT PRACTICES

Advertising Agency Services Used By Hospitals (n = 55) (Multiple Response Question)	Percent
Advertising Planning	54.5
Copywriting	60.0
Art Work	83.6
Public Relations	12.7
Media Planning & Buying	65.5
Production	76.4
Marketing Research	20.0
Other	2.0

Advertising Budgeting Methods (n = 149)	Percent
Percent of Expected Revenues	4.7
All We Can Afford	15.4
According to Competition	.7
To Meet Objectives	43.6
Executive Judgment	32.2
Other	3.4

Allocation of Budgets to Media (n = 129)	Percent
Television	12.3
Newspapers	40.1
Radio	15.1
Outdoor (Billboards)	2.7
Direct Mail	11.0
Transit	1.0
Yellow Pages	9.0
Other	5.1

Size of Production/Media Budgets (n = 117)	Percent
Less than $25,000	43.6
$26,000 - $75,000	20.5
$76,000 - $150,000	15.4
$151,000 - $300,000	8.5
Greater than $300,000	12.0

Conduct Marketing Research During Past Year? (n = 149)	Percent
Yes	60.6
No	39.4

The distribution of the size of the production/media budgets is also shown in **Table 2**. The average budget for media and production was $108,000. However, the mean is misleading. Budgets ranged in size from $1,000 to $800,000, with a median level of $35,000. Also, 76% of the respondents said that the current year's budget was larger than the previous year by an average of 26% and they expect budgets to continue to increase. In most cases these increases are from a relatively low base figure, but they do provide some indication of the importance of advertising to hospitals.

In response to an open-ended question asking how the effectiveness of their advertising is measured, the most frequently mentioned responses were awareness and attitudes, patient census, direct response inquiries, and verbal feedback. It was interesting to find that 81% of the respondents reported making some attempt to measure the effectiveness of their advertising, suggesting a strong awareness of the need for accountability.

Respondents were also asked what they saw as the major problems with hospital advertising. To the open-ended question, 77% of the respondents cited at least one problem. By far the most frequent response, but still representing only 15% of the total, was the rising cost of advertising. Other problems which were given by at least 3% of the respondents were:

1. Lessens credibility
2. Lack of objectives
3. Benefits difficult to measure
4. Lack of experience in advertising
5. Advertising is ineffective
6. Advertising is not directed at patient needs

Finally, it should be noted that the advertising management position is a full-time job in only 8.5% of the reporting hospitals. Typically, though, the functions are handled by an administrator considered to hold an upper-level management position.

Results: Relationships Between Advertising Practices and Hospital Characteristics

A total of 70 cross-tabulations were run to examine the relationships between hospital characteristics and advertising practices. The characteristics, practices, and the measures used in the analyses were:

Characteristics

1. Part of a multi-hospital system: Yes or no.
2. Advertising handled by: Headquarters, individual hospital or split.
3. Size: Number of beds above and below the median of 77.
4. Hospital classification: Government or non-government.
5. Type of hospital: General or specialty.
6. Service area: Less or greater than 40 mile radius.
7. Number of competitors: None, or one or more.
8. Population of service area: Less or greater than 200,000.
9. Occupancy rate: Less or greater than 50%.
10. Operate walk-in clinics away from hospital: Yes or no.

Practices

1. Size of budget: Above or below the median of $35,000.
2. Use outside advertising agency: Yes or no.
3. Method of establishing budget: Objective/task, executive judgement or other.
4. Product/Services advertising: More or less than 50% of budget.
5. Institutional/Image advertising: More or less than 50% of budget.
6. Conduct marketing research during past year: Yes or no.
7. Years advertised: Three years or less or more than three years.

Using a significance level of .05 as the cut-off point, 33 significant relationships between variables were found. These Chi-square test results are shown in **Table 3**. As can be seen, eight of the ten hospital characteristics and all of the advertising practice variables were included in one or more of the relationships.

TABLE 3
RELATIONSHIPS BETWEEN HOSPITAL CHARACTERISTICS AND ADVERTISING MANAGEMENT PRACTICES

	Significance
Size of Hospital BY	
Conduct Marketing Research	.000
Use Outside Agency	.000
Method of Setting Advertising Budget	.000
Product/Services Advertising	.000
Institutional/Image Advertising	.001
Size of Budget	.000
Number of Competitors BY	
Use Outside Agency	.008
Product/Services Advertising	.003
Institutional/Image Advertising	.032
Size of Budget	.005
Population of Service Area BY	
Conduct Marketing Research	.008
Use Outside Agency	.000
Method of Setting Advertising Budget	.004
Product/Services Advertising	.000
Size of Budget	.000
Occupancy Rate BY	
Use Outside Agency	.001
Method of Setting Advertising Budget	.010
Size of Budget	.001
Walk-In Clinics BY	
Conduct Marketing Research	.044
Use Outside Agency	.003
Method of Setting Advertising Budget	.035
Products/Services Advertising	.023
Size of Budget	.000
Part of Multi-Hospital System BY	
Use Outside Agency	.045
Product/Services Advertising	.045
Number of Years Advertised	.002
Hospital Classification BY	
Use Outside Agency	.035
Product/Services Advertising	.002
Institutional/Image Advertising	.008
Number of Years Advertised	.003
Hospital Type BY	
Use Outside Agency	.007
Institutional/Image Advertising	.025
Size of Budget	.000

Approaching the analyses from the perspective of the advertising management practices, **Table 3** shows that the use of an outside advertising agency is related to each of the eight hospital characteristics. As expected, the use of an agency is positively related to hospital size, the number of competitors, and the size of the population served. Also, those hospitals that are (1) part of a multi-hospital system, (2) have walk-in clinics at locations other than the hospital, (3) are specialty hospitals, and (4) are non-government are more likely to use an agency than those who do not have these characteristics. Perhaps the most interesting finding here was the strong relationship between occupancy rates and the use of an agency. Of those hospitals with occupancy rates below fifty percent, 74.3% of them do not use an agency. For those with occupancy rates above fifty percent, 55.4% use outside agency services.

With respect to the size of the budget, most of the results were as expected. Larger budgets were positively associated with the size of the hospital, number of competitors, population, walk-in clinics, and occupancy rates. One surprise finding was that 85.7% of the specialty hospitals had budgets above the median, while 58.7% of the general hospitals had budgets below the median. Another unexpected result was that no significant differences were found in budget size for the multi-hospital or the hospital classification variables. A priori, one would think that multi-hospital systems and non-government hospitals would have larger budgets.

Whether or not marketing research has been conducted during the past year was positively related to the size of the hospital, population, and the operation of walk-in clinics. These results probably reflect a greater need for market information in more complicated environments as well as resource availability to conduct the research. It was surprising, however, to find no relationship with either the number of competitors or occupancy rates. One might expect that a hospital with competitors or low occupancy rates would feel compelled to conduct some marketing research. Again, a possible explanation might be the lack of resources.

The significant differences in the methods of setting advertising budgets provided some of the most revealing findings of this study. Large hospitals, large populations, high occupancy rates, and the operation of walk-in clinics were clearly related to the use of the objective and task method, while the opposite cases used executive judgment or some other method. Using the size of the hospital as an example, 63.2% of the "large" hospitals reported using the objective and task method while 76.1% of the "small" hospitals used other methods. This would seem to indicate a distinct difference in the level of sophistication in budgeting practicing between large and small hospitals. This sophistication probably carries over into advertising execution and other marketing functions which leads to higher occupancy rates.

The relationships between hospital size and the percent of the budget spent on product/service advertising or institutional (image) advertising also show very distinct differences between "small" and "large" hospitals. Of the large hospitals, 74% reported spending more than half their budgets on product/service advertising,

while only 36.2% of the small hospitals fell into this category. As for institutional advertising, only 8.2% of the large hospitals reported spending more than half their budget in this area. In contrast, 31.1% of the small hospitals spent more than half their budgets on image advertising. Further, those hospitals (1) with competitors, (2) located in larger population areas, (3) who operate walk-in clinics, (4) are part of a multi-hospital system, and (5) are non-government place significantly more emphasis on product/service advertising than their counterparts. Specialty hospitals, while spending more of their budgets on product/service advertising than image advertising, spend proportionally more on image advertising than general hospitals do.

An interpretation of these latter findings requires a certain amount of speculation. One possibility is that small hospitals, located in small population areas and facing little or no competition, are more concerned with promoting their image to increase their prestige and political clout within their communities. If this is the case, advertising is probably viewed as an extension of a hospital's public relations efforts. On the other hand, larger hospitals with more competition and operating without government support appear to use advertising as a competitive tool.

The last advertising practice variable examined was the number of years that hospitals have advertised. The only significant relationships were with the hospital classification and multi-hospital system variables. Non-government hospitals and those in multi-hospital systems have advertised for longer periods of time than government or stand-alone hospitals.

Conclusions

Perhaps the most important findings of this study are the very significant differences in advertising practices based on the size of the hospital. Larger hospitals are more likely to use the expertise of an outside advertising agency and to have larger advertising budgets. Also, the larger hospitals tend to use the objective and task method of setting an advertising budget, whereas the smaller hospitals used some form of executive judgment. This is a very strong indicator or the level of expertise being used by hospitals. Larger hospitals allocate the greatest percent of their budgets to specific product/services advertising, while smaller hospitals spent a much higher percent of their budgets on institutional advertising. All of this indicates that larger hospitals have adopted a more competitive posture than smaller hospitals. This may signal the death knell for small hospitals, unless they hold monopoly positions in cities large enough to support them and to attract physicians to the area.

Although hospital administrators expect their advertising budgets to grow, this trend is not without problems. The biggest problem perceived by administrators is the rising cost of advertising. Since hospitals spend the largest percent of their budgets on newspaper advertising, this perception is understandable. Nationwide, newspaper rates have increased between 7-10% in the past couple of years, and they are not usually negotiable. On the other hand, television and radio advertising rates have remained relatively stable, because broadcast media rates are highly negotiable. Although the respondents believe that newspapers work best, perhaps consideration of other media is needed. Innovative media selection has become a very important objective of all advertisers.

Other problems related to advertising which were noted in this study are that advertising lessens credibility, is difficult to measure, and may be ineffective. These are accountability issues which, as mentioned in the introduction to this paper, will be critical issues for hospital marketing executives during the 90s.

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INDUSTRIAL VERSUS CONSUMER SALES PROMOTION

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Abstract

One of the basic problems in understanding sales promotion is trying to get consensus on a list of sales promotion media. Part of this problem is that marketers to organizational buyers see sales promotion media in a different way than marketers to final consumers. This is a report on a research project on sales promotion media that addresses these issues. What are industrial sales promotion media? What are consumer sales promotion media?

Introduction

During recent years, a heavy spending shift from advertising to sales promotion has increased interest in sales promotion research. One important area of this research has to do with differences between sales promotion directed to the industrial market versus the consumer market. There is no consistent view on what is sales promotion (Cooke 1985, 1989). The majority view is one-sided. It is consumer orientated.

To see how dominant the majority view is, refer to the definition of sales promotion in the new AMA dictionary (Bennett 1988, p. 179). It references Schultz. Schultz's sales promotion books (Schultz & Robinson 1982a, 1982b) cover consumer sales promotion. The next definition (p. 179) is, "sales promotion, in organizational buying." Thus there are two definitions. One for sales promotion that presumedly covers all sales promotion but is really consumer orientated and one for industrial sales promotion. Problems in defining sales promotion are also due to the traditional differences in viewpoint between academics and practitioners.

Although there probably should be a single comprehensive definition of sales promotion (Cooke, 1989), classifying the sales promotion media by market orientation does have advantages.

Purpose

The purpose of the research described in this paper was to:

1. To end confusion in marketing terminology so teacher, practitioner, and researcher all start using an accepted set of terms.
2. To differentiate, if necessary, between a sales promotion concept suitable for industrial marketing and one suitable for consumer marketing.
3. To identify and classify the characteristics of media suitable for industrial and consumer sales promotion.

Methodology

One round of a larger Delphi study on sales promotion (Marion 1987) was devoted to the identification and classification of sales promotion media. The Delphi panel consisted of different groups: academics and practitioners, consumer and industrial orientated Delphi panels are panels of experts. The experts are not randomly selected.

Consumer-oriented panelists met three or more of the following criteria:

1. Membership in the Promotion Marketing Association of America.
2. Individuals who attended a Sales Promotion conference and identified themselves as oriented toward the marketing of consumer products (ideas, goods or services).
3. Writers of current articles on the use of sales promotion in consumer product firms.
4. Individuals who identified themselves as oriented toward the marketing of consumer products in an unpublished Sales Promotion Agency research project.
5. Writers of current textbooks that either deal with consumer sales promotion directly or contain significant sections dealing with consumer sales promotion.

Industrial-oriented panelists met three or more of these qualifications:

1. Individuals who attended a Sales Promotion conference and identified themselves as oriented toward the marketing of industrial products.
2. Individuals who identified themselves as oriented toward the marketing of industrial products in an unpublished Sales Promotion Agency research project.
3. Writers of current textbooks that had significant sections dealing with industrial sales promotion.
4. Writers of current articles on the use of sales promotion in industrial products firms.
5. Members of advertising agencies identified by Industrial Marketing's "copy chasers" as having one or more outstanding industrial advertisements.

There were twenty-four academics and fifty-two practitioners panelists. Fifteen academics and twenty-six practitioners were consumer oriented. Five academics and twenty-one practitioners were industrial marketing oriented. Four academics and five practitioners reported both consumer and industrial orientation.

A questionnaire listing different sales promotion media was mailed to the seventy-six panelists. A definition of each medium was included. This questionnaire covered both consumer and industrial sales promotion media.

The panelists were asked to classify each medium as sales promotion or not sales promotion. If the medium was sales promotion, the panelists were asked to classify it as consumer only, mostly consumer, both consumer and industrial, mostly industrial or industrial only.

This classification of media should aid in understanding sales promotion. The results are shown in **Tables 1, 2** and **3**.

TABLE 1

CLASSIFICATION OF MEDIA AS SALES PROMOTION

Media	Is sales promotion		Is not sales promotion		No Response
	%	(n)*	%	(n)*	(n)*
1. Consumer contests	100%	(76)	-	-	(0)
2. Coupons	100%	(76)	-	-	(0)
3. Point-of-purchase & Display	100%	(75)	-	-	(1)
4. Self-liquidating premiums	100%	(74)	-	-	(2)
5. Free in-the-mail premiums	100%	(74)	-	-	(2)
6. Joint promotions	100%	(73)	-	-	(3)
7. Sweepstakes	100%	(73)	-	-	(3)
8. Refunds or rebates	98.6%	(74)	1.3%	(1)	(1)
9. Stamps & other continuity plans	98.6%	(73)	1.4%	(1)	(2)
10. Contests for dealers	98.6%	(72)	1.4%	(1)	(3)
11. Contests for sales people	97.3%	(73)	2.7%	(2)	(1)
12. Free goods	97.3%	(73)	2.7%	(2)	(1)
13. Sales materials for dealers & distributors	97.3%	(73)	2.7%	(2)	(1)
14. Demonstrations	96.1%	(73)	3.9%	(3)	(0)
15. Bonus packs	96.1%	(73)	3.9%	(3)	(0)
16. Samples	96.0%	(72)	4.0%	(3)	(1)
17. In-packs, on-packs, near-packs	94.7%	(72)	5.3%	(4)	(0)
18. Price off deal	94.7%	(71)	5.3%	(4)	(1)
19. Direct mail	93.3%	(70)	6.7%	(5)	(1)
20. Catalogs	93.3%	(70)	6.7%	(5)	(1)
21. Trade shows	93.2%	(69)	6.8%	(5)	(2)
22. Trade allowances	91.9%	(68)	9.1%	(6)	(2)
23. Business Gifts	89.2%	(66)	9.8%	(8)	(2)
24. Quantity discounts	89.2%	(66)	9.8%	(8)	(2)
25. Specialty advertising	87.8%	(65)	12.2%	(9)	(2)
26. Reusable containers	86.5%	(64)	13.5%	(10)	(2)
27. Sponsorships	86.3%	(63)	13.7%	(10)	(3)
28. Industrial magazines	85.3%	(64)	14.7%	(11)	(1)
29. Packaging	85.3%	(64)	14.7%	(11)	(1)
30. Audio-visual	83.7%	(62)	16.3%	(12)	(2)
31. Trade publication	83.6%	(61)	16.4%	(12)	(3)
32. Sales training material	81.1%	(60)	18.9%	(14)	(2)
33. Package identification	80.0%	(60)	20.0%	(15)	(1)
34. Technical bulletins	79.5%	(58)	20.5%	(15)	(3)
35. Yellow pages	76.4%	(55)	24.6%	(17)	(4)
36. Billboards	74.7%	(56)	24.3%	(19)	(1)
37. Transit Cards	74.7%	(56)	24.3%	(19)	(1)
38. Publicity	73.3%	(55)	26.7%	(20)	(1)
39. Industrial directories	72.4%	(55)	27.6%	(21)	(0)
40. Price lists	70.7%	(53)	29.3%	(22)	(1)
41. Telephone	64.4%	(47)	35.6%	(26)	(3)
42. House organs	50.7%	(38)	49.3%	(37)	(1)
43. Personal Computer	20.0%	(14)	80.0%	(56)	(6)

(n) = the number of panelists who answered that question that way.
Thus for the last item personal computers fourteen said it was sales promotion, fifty-six said it was not and six did not answer the questions. Non-responses in the third column exceeding three for only two media.

Selected Sales Promotion Media

The above results show that some sales promotion media are consumer orientated, some are industrial and some are both. This report also covers three sales promotion media by panelists' marketing employment (academic or practitioners), orientation (consumer or industrial) and the application. The three are packaging, specialty advertising and audio-visual. This three serve to show how the panelists' viewpoint was influenced by their employment and orientation.

Packaging

A significant number of academics did not view packaging as sales promotion. Most practitioners did. Eight (34%) of the academic panelists and three (6%) of the practitioners believed that packaging was not sales promotion.

Of those who said packaging was sales promotion (85% of all panel members) no one saw it as only or mostly industrial. Of the fifteen academics who saw packaging as a sales promotion, nine (60%) said is was only or mostly consumer and six (40%) said it was both industrial and consumer. Of the forty-nine practitioners who saw packaging as a sales promotion, twenty-six (53%) said it was only or mostly consumer and twenty-three (47%) said it was both consumer and industrial.

Of the forty panelists who were consumer orientated four (10%) said it was not sales promotion. Of the thirty-six who said it was sales promotion twenty-three (64%) said it was only or mostly consumer and thirteen (36%) said it was both consumer and industrial. Results for the industrial orientated were similar. Three (12%) said it was not sales promotion leaving

TABLE 2

CLASSIFICATION OF MEDIA AS CONSUMER OR INDUSTRIAL
BY NUMBER OF PANELISTS

Media	Consumer only or mostly consumer	Both consumer and industrial	Industrial only or mostly industrial	Total responses	Not sales promotion	No reply
Consumer contests	70	6	0	76	0	0
Coupons	64	12	0	76	0	0
In-packs, on-packs, near-packs	62	9	0	71	4	1
Bonus packs	57	16	0	73	3	0
Point of purchase & displays	57	18	0	75	0	1
Free in-the-mail premium	56	18	0	74	0	2
Self-liquidating premium	55	19	0	74	1	1
Stamps & other continuity programs	53	19	1	73	1	2
Transit Cards	46	10	0	56	19	1
Billboards	44	12	0	56	19	1
Sweepstakes	43	30	0	73	0	3
Reusable containers	38	22	4	76	10	2
Packaging	35	29	0	64	17	5
Samples	30	41	1	72	3	1
Refunds or rebates	29	45	0	74	1	1
Sponsorships	27	33	3	63	10	3
Free goods	27	43	3	73	2	1
Price-off deal	23	44	4	71	4	1
Package identification	15	40	5	60	15	1
Direct mail	12	58	1	71	5	0
Publicity	10	41	4	55	20	1
Demonstrations	9	59	5	73	3	0
Joint promotions	22	30	21	73	0	3
Telephone	7	37	6	50	26	3
Yellow pages	4	42	8	54	18	4
Specialty advertising	4	52	9	65	9	2
Catalogs	0	63	7	70	5	1
Personal Computer	0	9	5	14	56	6
Audio-visual	4	37	21	62	12	2
Quantity discounts	2	39	25	66	8	2
House organs	1	11	26	38	37	1
Contests for sales people	1	38	34	73	2	1
Price lists	0	19	34	53	22	1
Sales training material	0	24	35	59	15	2
Sales Material for dealers & distributors	3	33	37	73	2	1
Trade allowances	6	25	37	68	6	2
Contests for dealers	5	28	39	72	1	3
Trade publications	0	19	41	60	13	3
Trade shows	0	24	45	69	5	2
Business gifts	0	21	45	66	8	2
Technical bulletins	0	3	54	57	16	3
Industrial directories	0	1	54	55	21	0
Industrial magazines	0	1	63	64	11	1

twenty-three that split eleven (48%) for only or mostly consumer and twelve (52%) for both consumer and industrial. The nine panelists who were both consumer & industrial had four (44%) not sales promotion. That left five who split one (20%) for only or mostly consumer and four (80%) for both consumer and industrial.

Specialty Advertising

Eighty-eight percent of the panelist divided equally among academics and practitioners saw specialty advertising as sales promotion. Consumer orientated panelists (15%) were somewhat less inclined to see it as sales promotion than the industrial panelists (7%). A clear majority of those who said it was sales promotion, in all groups, saw it as both consumer and industrial sales promotion.

Specifically three (13%) of the academic panelists and six (12%) of the practitioners believed that specialty advertising was not sales promotion. Of the twenty academics who saw it as sales promotion, nineteen (95%) said it was both industrial and consumer and one (5%) said it was only or mostly industrial. Of the forty-five practitioners four (9%) said it was only or mostly consumer, thirty-three (73%) said it was both consumer and industrial and eight (18%) said it was only or mostly industrial.

Of the panelists who were consumer orientated six (15%) said it was not sales promotion leaving thirty-four who split three (9%) for only or mostly consumer, twenty-six (76%) for both consumer and industrial and five (15%) for only or mostly industrial. For the industrial orientated, two (8%) said it was not sales promotion leaving twenty-four who split one (4%) for only or mostly consumer, twenty (83%) for both consumer and industrial and three (12%) for only or mostly industrial. The eight panelists who were both consumer & industrial had one

TABLE 3

CLASSIFICATION OF MEDIA AS CONSUMER OR INDUSTRIAL
BY PERCENT OF PANELISTS *

Media	Consumer only	Mostly consumer	Both consumer and industrial	Mostly industrial	Industrial only
	%	%	%	%	%
Consumer contests	72.4	19.7	7.9	0	0
Coupons	47.4	36.8	15.8	0	0
In-packs, on-packs, near-packs	56.3	31.0	12.7	0	0
Bonus packs	39.7	38.4	21.9	0	0
Point-of-purchase & display	40.0	36.0	24.0	0	0
Free in-the-mail premium	40.5	35.1	24.3	0	0
Self-liquidating premium	41.9	32.4	25.7	0	0
Stamps & other continuity plans	46.6	26.0	26.0	1.4	0
Transit cards	30.4	51.8	17.9	0	0
Billboards	25.0	53.6	21.4	0	0
Sweepstakes	39.7	19.2	41.1	0	0
Reusable containers	14.1	45.3	34.4	4.7	1.6
Packaging	17.2	37.5	45.3	0	0
Samples	18.1	23.6	56.9	1.4	0
Refunds or rebates	16.2	23.0	60.8	0	0
Sponsorships	1.6	41.3	52.4	3.2	1.6
Free goods	24.7	12.3	58.9	4.1	0
Price-off deal	21.1	11.3	62.0	2.8	2.8
Package identification	8.3	16.7	66.7	3.3	5.0
Direct mail	2.8	14.1	81.7	1.4	0
Publicity	1.8	16.4	74.5	7.3	0
Demonstrations	2.7	9.6	80.8	6.9	0
Joint promotions	2.7	27.4	41.1	20.5	8.2
Telephone	4.3	10.7	72.3	12.8	0
Yellow pages	0	7.4	77.8	14.8	0
Specialty advertising	1.5	4.6	80.0	12.3	1.5
Catalogs	0	0	90.0	10.0	0
Personal Computer	0	0	64.3	35.7	0
Audio visual	0	6.5	59.7	27.4	6.5
Quantity discount	1.5	1.5	59.1	34.9	3.0
House organs	0	2.6	28.9	21.1	47.4
Contests for sales people	1.4	0	52.1	13.7	32.9
Price lists	0	0	35.8	43.4	20.7
Sales training material	0	0	40.7	15.2	44.1
Sales materials for dealer & distributors	2.7	1.4	45.2	15.1	35.6
Trade allowances	2.9	5.9	36.8	11.7	42.7
Contests for dealers	1.4	5.6	38.8	15.3	38.8
Trade publication	0	0	25.0	11.8	42.1
Trade shows	0	0	34.8	23.2	42.1
Business gifts	0	0	31.8	36.3	31.8
Technical bulletin	0	0	5.3	47.3	47.3
Industrial directories	0	0	1.8	21.8	76.4
Industrial magazines	0	0	1.6	34.3	64.0

*Those panelists who did not list the medium as sales promotion did not answer this question. Further some of those who did list this medium as sales promotion did not respond to this question. Non-response by those who classified the medium as sales promotion did not exceed six. These categories are detailed in **Table 2**.

(13%) not sales promotion leaving seven who split six (86%) for both consumer and industrial and one (14%) for only or mostly industrial.

Audio-Visual

Audio Visual was defined as portable equipment using a strip films, video tape or slides, with an audio track. The medium can be used for sales training, sales presentations in customers' offices and exhibits at trade shows.

A significant number of academics did not view audio-visual as sales promotion while most practitioners said it was sales promotion. Almost half (45%) of the panelists who had both a consumer and industrial orientation did not see audio-visual as sales promotion.

Of those who said audio-visual was sales promotion (84% of all panel members) the majority saw it as both consumer and industrial. Most of those who did not see it as both consumer and industrial felt that it was mostly or only industrial.

Eight (33%) of the academic panelists and four (8%) of the practitioners believed that audio-visual was not sales promotion. Of the sixteen academics who saw it as sales promotion, ten (63%) said it was both industrial and consumer, one (6%) said it was only or mostly consumer and

five (31%) said it was only or mostly industrial. Of the forty-six practitioners three (7%) said it was only or mostly consumer, twenty-seven (59%) said it was both consumer and industrial and sixteen (35%) said it was only or mostly industrial.

Of the panelists who were consumer orientated five (13%) said it was not sales promotion leaving thirty-four who split three (9%) for only or mostly consumer, eighteen (53%) for both consumer and industrial and thirteen (38%) for only or mostly industrial. For the industrial orientated three (12%) said not sales promotion leaving twenty-three who split seventeen (74%) for both consumer and industrial and six (26%) for only or mostly industrial. The nine panelists who were both consumer & industrial had four (44%) not sales promotion leaving five who split one (20%) for only or mostly consumer, two (40%) for both consumer and industrial and two (40%) for only or mostly industrial.

Analysis

The question of what is sales promotion is not easily answered. One problem has to do with definitions. For example, some people consider that selling to members of the channel distribution is industrial marketing. Therefore a few panelists classified various promotions to dealers, distributors and retailers in the consumer channel as industrial sales promotion while others called them consumer sales promotion. This showed up in the unanimous acceptance of consumer contests as sales promotion. Some panelists felt consumer contests were both industrial and consumer.

As seen in **Table 1** at least 70% of all panelists thought all the listed media were sales promotion except telephone, house organs and the personal computer. Four of the seven media that fell between 70% and 80% are media that most textbooks classify as mass selling not sales promotion. These were billboards, transit cards, publicity and yellow pages. This might explain why they were not rated sales promotion by a significant number of panelists. The high rating for these traditionally accepted mass media shows the problem in classifying sales promotion.

There is a relationship between orientation and classification of a medium. The consumer orientated did not consider some of the industrial orientated media to be sales promotion.

Summary

A Delphi panel of experts classified selected media as sales promotion or not. The panel was selected from academia and business. This research identifies differences in opinions on sales promotion media between industrial and consumer marketers and between academics and practitioners. This will help in understanding the confusion in marketing terminology, thereby benefiting teachers, practitioners and researchers.

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VISUAL COMPONENTS OF PRINT ADVERTISING: THE U.S. AND KOREA

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Abstract

This study analyses magazine advertisements from the US and Korea to identify crosscultural similarities and differences in the visual appeal. Specific hypotheses are examined regarding: elements of the visual, the process of visual appeal, and people in the visual.

Introduction

As the economies of many nations have become more entwined, communicating with the peoples of different nations has become increasingly necessary in today's world. As a result of increased global trade, and growing advertising expenditures, the question of using US developed ad campaigns in other countries is now routinely discussed. Media technology advancements, particularly with widespread satellite TV, have created new opportunities for mass communication. For example, recently IBM standardized ads within the European Community, changing only the language (Business Week 1991), while Gillette aired the same ads in Japan that it ran in the U.S. (Ono 1991).

The foregoing discussion is particularly relevant to US companies trading with Korea, as:
(1) Trade between the US and Korea has brought on a massive influx of Western culture to Korea (Kang and Morgan 1988). Communication from US advertisers to Korean consumers should become easier as Western culture continues to influence Korea,
(2) The literacy rate in Korea is 93%, and 98% of homes have TV sets, suggesting there are adequate opportunities for using advertising in Korea,
(3) There are sharp differences between the images portrayed on American programs and traditional Korean values (Kang and Morgan 1988). Historical differences between Korean values and US values suggest there may be problems with exporting US advertising campaigns to Korea (Lee 1988).

This paper contributes to the above discussion by providing an empirical analysis which contrasts the visual components of print magazine advertising in the US and Korea. The focus of this study is to determine if, in practice, visual components of advertising (e.g., colors, size, visual appeal, photography) are currently similar/dissimilar across countries.

Development of Hypotheses

Hypotheses Related to Elements of the Visual

There have been several recent attempts to describe how ad visuals might vary across countries, with a suggestion that cultural differences can lead to differences in price information in advertising (Helming 1982). There is also some indication that the use of photographs as opposed to illustrations might vary across cultures (Beniger and Westney 1981). These earlier studies suggest a general hypothesis that elements of the ad visual differ significantly by country. Several specific hypotheses which would relate to this generalization follow.

Over 90% of US magazine ads are now in color, rather than the older B/W process. Advertising in general also appears to be more competitive in the US than in Korea. (Per capita annual expenditures in the US are $397 as compared to $17 in Korea.) Smaller per capita expenditures on advertising would mean that consumers are faced with less advertising clutter, and individual advertisements will have greater impact. In the less cluttered environments the more economical black and white ads will still have good impact, and a greater percentage of advertising sponsors will stick with smaller ad budgets. This suggests:

H1a: The frequency of usage of black and white visuals will differ significantly by country.

Moriarity (1989) suggested that because realistic impressions are important in US advertising, photographs will be used more extensively than illustrations. This was borne out by her finding that 97% of US print ads used photographs rather than illustrations. There also appears to be a greater preference for illustrations in some countries, as Beniger and Westney (1981) found Japanese newspapers used illustrations three times as often as US newspapers. Further, Synodinos, Keown and Jacobs (1989) found marked country differences in the employment of a "dominant photo" appeal, ranging from a low of 12% in Australia, to a high of 58% in Sweden. This suggests the following hypothesis:

H1b: The frequency of usage of photographic visuals will differ significantly by country.

US advertising has been noted as "hard-sell" and direct, in relation to a more indirect approach used in Asian countries (Ad Age 1978). One dimension of hard-sell seems to be a greater emphasis on tie-ins between the product and the ad. For example,

Helming (1982) notes that Japanese TV ads often portray the product only in the ending shot. This greater emphasis on the product in US ads should mean that the product is displayed more often, displayed in a larger size, and more often contains the price, suggesting:

H1c: The frequency of product portrayal in the visual will differ significantly by country.

H1d: The size of the product in the visual will differ significantly by country.

H1e: Portrayal of the product's price in the visual will differ significantly by country.

Hypotheses Related to Process of Appeal

Moriarity (1989) found a number of different visual processes are used for communicating the message in U.S. ads (e.g., description, association, metaphor, storytelling approaches). Her study also found that US print ads most commonly used an appeal process involving product description (21% of ads) or association with a person or situation (22%). Less common was a metaphorical approach (10%), or an aesthetic pattern (2%). A comparable evaluation of advertising in other countries has not been performed. If the US is more direct in its advertising approach, then one would expect to find a greater use of direct approaches such as product description or association, and less use of the more indirect approaches like a metaphor or aesthetic. This suggests:

H2a: The frequency of usage of the product description appeal will differ significantly by country.

Comparative advertising is an even more direct approach and has been common in the US since the mid-1970s when various legal cases established its legitimacy. A 1983 survey by the International Advertising Association indicated comparative advertising was seldom used in most foreign countries (Boddwyn 1983), and this was recently confirmed for the EC (Wall Street Journal 1991). This suggests:

H2b: The frequency of usage of the product comparison appeal will differ significantly by country.

The association process of appeal, where product usage is associated with a particular situation or type of person, is probably more indirect and symbolic than the two previous processes. It is a popular appeal in the US and is actually used more often (22%) than the description appeal. Because the association process is commonly used in the advertising of all countries it would be difficult to predict which countries would use it more or less. Nevertheless, it seems likely that:

H2c: The frequency of usage of the association appeal will differ significantly by country.

The more symbolic process appeals are indirect, and at least some of them are thought to be more prevalent in Japan than in the US (Ad Age 1978), suggesting:

H2d: The frequency of usage of a symbolic process appeal (metaphor, storytelling, or aesthetic) will differ significantly by country.

Hypotheses Related to People in the Visual

The US has a history of absorbing new immigrant groups, and this seems to be reflected in a greater emphasis on social adaptation within the business setting. For example, the portrayal of both racial minorities and women has been of interest in the US since the early 1970s, but has only lately become of interest in other countries (Michell and Taylor 1990). More recently, the portrayal of the elderly in advertising has been a topic of interest in the US (Greco 1989). This greater attention directed toward ads reflecting social changes within the US suggests that certain groups of people may be portrayed more often in US advertising. The greater emphasis on these selected groups may also mean that people in general will appear more often in US ads. This suggests several hypotheses:

H3a: The frequency of persons appearing in the visual will differ significantly by country.

H3b: The frequency of women in the visual will differ significantly by country.

H3c: The frequency of elderly person portrayal in the visual will differ significantly by country.

As the per capita economic wealth in the US has increased, children in the US have been given both greater personal and financial freedom from their parents. As a consequence, children are often targeted directly by advertisers in the US. There are indications that children in other countries do not have equivalent consumption freedom (Synodinos, Keown and Jacobs 1989). These differences suggest:

H3d: The frequency of portraying children in the visual will differ significantly by country.

Methodology

This study investigated magazine advertising using the content analysis procedure. To ensure a broad-base of magazine advertising, ads were selected from three different magazine categories (women's, business, and general interest). High circulation magazines were selected from each country and, to the extent possible, magazines were matched based upon similar target markets. All full page ads in each issue selected were analyzed, with the exception of employment, real estate, organizational meeting announcements, and fashion clothing ads. In several cases more than one issue of a magazine was analyzed, but duplicate ads were not counted. The content analysis was performed jointly by two trained individuals, one of which was native to the subject country. In addition, a reliability check using a second graduate student native to the country was performed on at least 20% of the sample. The reliability check indicated interrater

agreement on individual measures in excess of 90%, with discussion resolving all points of disagreement. All magazine issues selected were from 1989 or 1990 issues, and the same monthly issue was chosen when comparable issues were available. The magazines chosen for the U.S. were: Business Week, Fortune, Reader's Digest, Time, Vogue, Family Circle, and Glamour. Comparable magazines from Korea were: Shin Dong-A, Reader's Digest, Weekly Kyong Hyang, and Woman's Dong-A.

Components Measured

The focus of this study was on the component structure of the visual within an advertisement. The following components were measured in each ad:
(1) Photographic portrayal, as opposed to illustration.
(2) Black and white as opposed to color.
(3) Portrayal of the product.
(4) The size of product portrayal in square cms.
(5) Inclusion of product price.
(6) The process or form of appeal used in the visual. More than one process of appeal may be observed in a visual, so two choices were allowed. Less than 1% of the ads were noted as containing more than two process appeals. The process typology was taken from Moriarity (1989), and included the following:
(a) description--what the brand looked like.
(b) comparitive--portrayal/naming of competitors.
(c) association--use of a lifestyle, or situation.
(d) symbolic--Moriarity (1989) reported the metaphor, storytelling and aesthetic categories separately. In this study they were combined into a "symbolic" category in order to minimize the small cell size problem when using the Chi-square statistic.
(7) Inclusion of people within the visual, specifically whether women, children, or the elderly appeared.

Product Category as a Covariate

Ryans (1969) pointed out that advertising often differs by product and it is prudent to control for product category. Ryans (1969) further suggested that nondurable products might be more amenable to standardization, while Clark (1975) suggested that industrial products may also be more amenable. In this study individual products were grouped into the categories of consumer durables, consumer nondurables, and other. Only the durables and nondurables categories are presented here.

Discussion of Results

Because product category differences can obscure country differences, each measure is tested separately against product category, prior to evaluation of country differences. As can be noted in **Table 1**, six of the hypotheses are clearly influenced by product category ($p<.05$), while one hypothesis is probably influenced ($p<.10$), and 6 hypotheses appear not influenced.

TABLE I
PRODUCT CATEGORY DIFFERENCES

Hypothesis	Dur-able	Non-durable	Significance
Elements of Visual			
1a black & white	5.2%	3.2%	χ^2=0.8, n=579, p=.36
1b photograph	26.6%	22.6%	χ^2=0.9, n=576, p=.35
1c product shown	64.2%	41.2%	χ^2=25., n=586, p=.00
1d " size (cm)	122.9	85.7	F=16.0, n=579, p=.00
1e price shown	22.7%	20.5%	χ^2=0.2, n=585, p=.62
Process of Visual Appeal			
2a description	71.0%	47.8%	χ^2=26., n=586, p=.00
2b comparison	8.0%	6.1%	χ^2=0.4, n=586, p=.51
2c association	51.7%	66.3%	χ^2=11., n=586, p=.00
2d symbolic	14.8%	14.9%	χ^2=.0, n=586, p=1.00
People Shown			
3a person in ad	34.1%	50.5%	χ^2=13., n=586, p=.00
3b woman*	61.7%	74.4%	χ^2=3.1, n=267, p=.08
3c elderly*	5.0%	3.4%	χ^2=.04, n=267, p=.85
3d children*	18.3%	13.0%	χ^2=0.7, n=267, p=.41

*percentage is of ads containing a person

Because product category was found to be a covariate for seven of the measures taken, these measures and their corresponding hypotheses are tested independently within the durables and nondurables product categories. To illustrate, in **Table 2** the first measure "black & white" is reported as not product specific because product category was not a significant influence. However, on line 10 of the table, the variable "product shown" is influenced by product category, and is therefore measured first within the durables product line, and then separately within the nondurables product categories.

TABLE II
COMPONENT DIFFERENCES: COUNTRY BY PRODUCT

Hypothesis #	US	Korea	Significance
NOT PRODUCT SPECIFIC			
1a black & white	5.7%	1.2%	χ^2=6.5, n=579, p=.01
1b photograph	80.8%	69.8%	χ^2=8.8, n=576, p=.00
1e price shown	9.2%	37.7%	χ^2=67.6, n=585, p=.00
2b comparison	10.0%	2.0%	χ^2=13.5, n=586, p=.00
2d symbolic	10.9%	20.2%	χ^2=9.1, n=586, p=.00
3c elderly person	2.7%	5.0%	small cells
3d children	15.5%	12.6%	χ^2=.25, n=267, p=.61
DURABLES PRODUCT LINE			
1c product shown	57.3%	72.5%	χ^2=3.8, n=176, p=.05
1d product size(cm)	119	127	F=.19, n=174, p=.67
2a description	68.8%	73.8%	χ^2=.31, n=176, p=.57
2c association	51.0%	52.5%	χ^2=.00, n=176, p=.97
3a person in ad	32.3%	36.3%	χ^2=.15, n=176, p=.70
3b women in ad	45.2%	79.3%	χ^2=6.0, n=60, p=.01
men in ad	71.0%	41.4%	χ^2=4.2, n=60, p=.04
NONDURABLES PRODUCT LINE			
1c product shown	41.6%	40.7%	χ^2=0.0, n=410, p=.94
1d product size(cm)	89	81	F=.53, n=404, p=.47
2a description	43.2%	54.5%	χ^2=4.6, n=176, p=.03
2c association	65.0%	68.3%	χ^2=0.3, n=410, p=.56
3a person in ad	48.1%	53.9%	χ^2=1.1, n=410, p=.30
3b women in ad	78.6%	68.9%	χ^2=2.0, n=207, p=.15
men in ad	31.6%	50.0%	χ^2=6.4, n=207, p=.01

Within the combined product lines there is a significant difference across countries on the variable "black & white" and hypothesis 1a is considered supported. Contrary to expectations, however, the U.S. used more B/W than Korea. The reason for using black and white magazine advertising in the US is generally to obtain maximum contrast against the clutter of other ads (if all other ads are in color, a

contrasting black and white ad may have more drawing power). This could imply that as advertising clutter increases in Korea, there may also be a trend towards some increase in black and white magazine ads. Indeed, the situation in TV advertising appears to be comparable, as Keown, Jacobs and Ghymn (1991) found US ads were black and white 9% of the time, while Korean ads were always in color.

Hypothesis 1b, regarding the use of photographs rather than illustrations, was confirmed in the combined product lines, and this appears to support the argument that countries spending more on advertising will also use more photographs in advertising.

Hypothesis 1c, showing the product in the ad, was confirmed for the durables product line, but not for the nondurables product line. However, it was expected that the US would be the country most likely to portray the product in the visual, while Korea actually displayed the product considerably more often. Even more contrary, hypothesis 1d, product size, was not confirmed for either the durable or nondurable product lines. It would seem that either the US is not more hard-sell than Korea, or that showing the product in the visual, and size of product in the visual, are not elements of a hard-sell approach.

Hypothesis 1e, showing the price in the ad, was confirmed. But, it was expected that the US would show prices more frequently than Korea (assuming Korean ads are comparable to Japanese ads in seldom mentioning price). Instead, the US was on the low side (9%) with prices shown more frequently in Korea (38%). This difference may suggest that the inclusion of price information in advertising is not culturally based, but rather determined more by the channels of distribution and the competitive situation.

Hypothesis 2a, use of the descriptive appeal, was confirmed for the nondurables product line, but not for the durables product line. Contrary to expectations, the US was not the largest user of the descriptive appeal. Rather, the situation is similar to pricing in the ad, with Korea using this approach more frequently. Again, it appears that the US is less direct than commonly believed.

Hypothesis 2b, use of the comparative appeal, was confirmed for the combined product lines, and as anticipated the US was the greatest user of this technique. In view of the findings in other areas (product shown, product size, price in ad), the US's reputation for being the most direct and the most hard-sell country may be over-generalized. Instead, this reputation may be primarily driven by the US position as the greatest user of comparative ads. This would be good news for US advertisers, as it implies greater ease in developing global ads from a US base (avoid the comparative technique in global ads).

Hypothesis 2c, use of the association appeal, was not confirmed for either the durables or the nondurables product. Since the association appeal was viewed as a middle-ground approach, no projection was made regarding which country would be high/low user of the technique. The results suggest that both the US and Korea are high users of the technique.

Hypothesis 2d, the use of symbolic appeals, was confirmed for the combined product line. As projected, Korea appears to follow the Japanese model and uses a symbolic approach more often than the US.

The hypothesis regarding inclusion of people in the ad (3a) was not confirmed for either product line, but this disguises an underlying difference in gender role portrayal. US ads portrayed men more often with durable products and women more often with nondurable products. In Korea there is less sterotyping of products by gender, with women appearing in ads more often than men in both product categories.

The inclusion of elderly persons in the ad (hypothesis 3c) could not be evaluated due to the small number of cases in both countries. But, if elderly persons are shown only rarely in both countries, this may suggest that at the present time portrayal of the elderly is really a non-issue in advertising. Children were portrayed (hypothesis 3d) equally often in the advertising of both countries, suggesting both countries emphasize family in advertising.

Implications

The first implication based on the findings is there are more country differences than similarities. Six hypotheses show significant country differences for both product lines. For two additional hypotheses the evidence is split, with country differences evident in one product line, but not the other. The existence of substantial differences at the component ad level suggests advertisers should be cautious in moving ahead on standardization.

A second implication from this study is that in designing global advertising, the country from which an ad originates is important. Perhaps certain unique advertising agency practices develop in each country, or perhaps advertising practice itself is in a different stage of development in various countries. In either case, advertising practices which are unique to specific countries may be identifiable to consumers of another culture, and may detract from advertising effectiveness. Therefore, it would seem advisable to identify those practices which are relatively unique to each country, and consider in each case whether these practices should be avoided in ads designed for a global market. For example, if ads originate in the US it is important

to check for comparative appeals, because these are not popular in other countries. If an ad originates in Korea it is important to review for storytelling appeals, as this is less popular in the US.

Future Research and Limitations

This study found both country differences and product differences. Future research could be directed toward services and business to business products to increase our understanding of product influence in crosscultural comparisons. In addition, this study did not address ad headlines, or content of appeal (such as quality), and country differences in these areas could be important.

This study examined only one single advertising medium, and a limited sample of magazines. There are several thousand different magazines in both countries, and the market structure, the target markets, editorial practices, and ad agency practices vary across countries such that magazines can only be roughly matched across countries. Although the magazines chosen are believed to be representative, a change in selection of magazines would inevitably produce changes in some of the measurements.

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THE JOB INVOLVEMENT/ORGANIZATIONAL COMMITMENT INTERACTION EFFECT ON SALESPERSONS' TURNOVER

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Abstract

It has been hypothesized that the interaction of job involvement and organizational commitment would be significant in explaining turnover cognitions. Data here partially supports this notion. Organizational commitment alone, however, explained about half the variance while the interaction term generally explained less than 3%. Sixteen covariates (analyzed as a group) were added to the analysis and explained 39% to 43% of the variance with organizational commitment falling to the 10-12% range. Organizational commitment was again significant in almost all cases while job involvement and the interaction term's results were mixed. Organizational commitment still appears to be the best predictor of intention to turnover.

Introduction

The purpose of this paper is to investigate the Blau and Boal (1987) hypothesis that the interaction between job involvement and organizational commitment would be a better explanation of turnover than either one alone. Blau and Boal (1987) comment, "...job involvement accounts for as much as 16% of the variance and as little as 2% [in predicting turnover] . . . using job involvement and organizational commitment jointly (in an interaction) to understand or to predict specific types of turnover and absenteeism has not often been attempted."

Many explorations of job turnover have focused on job satisfaction as the primary predictor variable. Another body of literature has shown that organizational commitment is a better predictor. Steers (1977) found commitment to be strongly related to intent and desire to remain with the company and moderately related to attendance and turnover. Organizational commitment was discussed by Mobley et al. (1979) as potentially valuable in the explanation of turnover. Organizational commitment was suggested as a better predictor of turnover than job satisfaction by Mowday, Steers, and Porter, (Mowday, et al., 1979).

Kluge (1987) determined there were no differences between part-time and full-time workers regarding intention to quit and organizational commitment. Cotton and Tuttle (1986) suggested that turnover is a significant contributor to reduced organizational effectiveness in a wide range of work environments. They found the reliability of the organizational commitment variable as a predictor of turnover indicated promise for its inclusion in future models of the turnover process.

Blau and Boal empirically tested their model on 129 insurance salespeople (Blau and Boal, 1989) finding the job involvement/organizational commitment interaction significantly accounted for additional turnover variance beyond the covariates of sex, marital status, and tenure, and the job involvement and organizational commitment main effects (Blau and Boal, 1989 pg. 121). Blau's and Boal's empirical work focused on a relatively small number of full-time salespeople. Ingram, Lee and Lucas (1991) also tested the Blau and Boal typology finding results consistent with Blau and Boal (1989). However, no attempt was made to investigate part-time salespeople.

This paper investigates the organizational commitment/job involvement interaction and advance the understanding of this by examining if differences exist between part-time and full-time salespeople.

Hypothesis To Be Tested

Three hypotheses will be tested. Hypothesis 1: the interaction of organizational commitment and job involvement will be significantly related to intention to turnover in a moderated regression approach. Hypothesis 2: organizational commitment will have the strongest association with intent to turnover. Hypothesis 3: organizational commitment, job involvement and their interaction will predict intent to leave over and above other job related factors.

Method

Subjects and Procedures. The respondent pool (n=565) was 62.3% (330) female, 37.7% (200) male and 35 (6.2%) did not respond to the gender question. Twenty-two percent (n=124) were full-time (regularly worked 35+ hours per week) salespeople and the balance were part-timers. A self-administered survey was distributed by a major national telemarketing firm with eight locations across the nation. The response rate was 91%.

Main Effects Variables

Organizational Commitment (ORGOM). Organizational commitment was measured using the fifteen item Organizational Commitment Questionnaire (Mowday, Steers and Porter, 1979). A Likert-type response format was used with six items being reverse scored.

Job Involvement (INVOLV). This study used the ten-item Job Involvement Questionnaire as reported by Kanungo (1982). Lee and McNeeley (1990) studied job involvement and its relationship to propensity to leave. They determined job involvement was negatively related to propensity to leave.

Turnover (TURNOVER). Turnover was measured by using three statements: "I'm _____ planning on working here a year from now unless something happens beyond my control," "I'm _____ looking for a better job than this one," and "If I could find another job with equal pay, equal benefits and the same hours I am _____ change companies." The responses were presented on a 1-10 scale with 1 being most positive answer, "Absolutely Certain" or "Always" and 10 being the most negative, "Definitely Not". The third question was reverse scored. The three questions were summed to produce the total scale value.

Covariates

The Blau and Boal model has a less than exhaustive expanse of variables in which to capture and explain more of the observed variance. Blau and Boal (1989) used only sex, marital status and tenure as covariates and found them to be insignificant. Incorporating more job related variables should produce equations with greater explanatory power. Additional variables suggested by the literature are described below.

Cohesion (COHESION). Work-group cohesion is the extent to which employees have cohesive, amiable work units. Boyer (1985) developed the five-question measure of work-group cohesion used in this study.

Scope/Supervision. Scope and supervision is a multi-dimensional construct and was measured using eighteen items from the Michigan Organizational Assessment Questionnaire. The specific items measured were required skill (REQSKIL), role conflict (CONFLICT), role clarity (CLAR), role overload (OVERLOAD), and job challenge(CHALL).

Routinization (ROUTIN). Muchinsky and Tuttle (1979) and Muchinsky and Morrow (1980) concluded that task repetitiveness showed a consistent positive relationship with turnover. The instrument used here was taken from Hall's (1963) original work later used by Hage and Aiken (1969).

Upward Communication (COMM). Upward communication was measured here between employees and supervisors using five questions with a five item Likert-type response format. The questions were, "To what extent is/does my supervisor: (1) easy to approach, (2) pay attention to what I am saying, (3) willing to listen to job-related difficulties, (4) seek out thoughts and feeling of others and (5) encourages those supervised to express their opinion."[1]

Job Satisfaction (JOBSAT). Job satisfaction study, was measured with a modified form of Bagozzi's (1978) instrument. Questions probed the respondent's satisfaction with promotion opportunities, easiness to demonstrate ability, job security, pay, job challenge, general job situation and if they would recommend the job to a friend.

Respect (RESPECT). Four questions were taken from Scott's work (1965). The four questions asked respondents if they received the respect they felt they were entitled to, if they gained the recognition they felt they deserved for their accomplishments, if they felt they were respected by people who are themselves worthwhile and if they took pride in their achievements.

Alternative Job Opportunities (ALTERN). The idea that alternative job opportunities is an intervening variable has been studied by numerous investigators who have generally found it is positively related to turnover. In this study, alternative job opportunities was assessed by a five-item response set with possible answers ranging from "Very Easy" to "Not Easy At All" for the following three questions:

1. "How easily would it be for you to find a job with another employer in the local job market that is as good as the one you now have?"

2. "How easy would it be for you to find a job with another employer in the local job market better than the one you now have?"

3. "How easy would it be for you to find a job with another employer in the local job market that is much better than the one you have now?"[2]

Distributive Justice (JUSTICE). Distributive justice refers to the distribution of rewards or punishments (Price et al. 1986). The survey for this research used Boyer's (1985) six-item instrument. Five response categories ranged from "Very Fairly Distributed" to "Not Distributed at All Fairly."

Cronbach's alphas indicated that organizational commitment and job involvement had satisfactory reliabilities. For the covariates, two variables, overload and required skills were

[1]Scale provided by Prof. Thomas Martin, University of Nebraska at Omaha. No citation was provided.

[2]Modified from Price, James L. and Charles W. Mueller, Absenteeism and Turnover of Hospital Employees. Greenwich, CN: JAI Press, C. 1986, pg. 242.

found to have marginal reliabilities and the remainder had moderate to high reliabilities.

"Main Effect" Variable Analysis

As suggested by Blau and Boal (1987), moderated regression was used to analyze the data. The data were first analyzed for the entire group of respondents then broken down into full-time and part-time employees, an analysis not previously done by Blau and Boal. Two approaches were undertaken. First, was a hierarchical approach. Second, step-wise regression was done.

Forcing the variables in hierarchically showed organizational commitment accounting for 47% of the variance for the full sample, 55% for the full-timers and 44% for the part-timers. For the full sample, job involvement and the interaction term both proved to be significant in predicting intent to turnover but it only constituted a minor portion of the variance, 1% in each case. When full-time salespeople were examined, the significance of job involvement disappears and the interaction term, while statistically significant, only explained an additional 2% of the variance. For part-time salespeople, job involvement added 2% more to the explanation of the variance. The interaction term for part-time salespeople was not significant.

Step-wise entry produced different results. While organizational commitment was significant for all three samples, it entered first for the total sample and full-timers but second for part-timers. For the full sample, organizational commitment accounted for 47% of the variance, and the interaction term accounted for 2% of the variation. Job involvement variable was washed away by the entry of the interaction term. For the full-time salespeople, only organizational commitment entered and accounted for virtually all the variance. For part-time salespeople, however, using step-wise regression produced an interaction term accounting for 45% of the variance and organizational commitment for only 1%.

These results give partial support to Blau's and Boal's hypothesis of the interaction between job involvement and organizational commitment making a significant contribution to predicting intent to turnover. However, Blau's and Boal's hypothesis may not universally applicable. The two different methods produced somewhat contradicting results. The hierarchical findings suggest that the interaction term adds explanatory power significantly above and beyond the organizational commitment and job involvement for the full-time salespeople. However, the stepwise results suggest that the interaction term is the best predictor for the part-timers.

Main Effect Plus Covariate Analysis

A series of hierarchical moderated regressions was also done with the set of covariates added. For the total sample, forcing the covariates in first, indicated they accounted for 39% of the variance in the turnover variable and they were also statistically significant. Organizational commitment, job involvement and the interaction term were also all statistically significant. Organizational commitment added 12% to the R^2, job involvement added 1%, but the interaction term added essentially nothing. Blau and Boal (1989) used only sex, marital status and tenure as covariates and found them to be insignificant.

By adding job related factors as covariates, the explanatory power increased and produced a more well rounded explanation to turnover than Blau's and Boal's non-job related factors.
For the full-time salespeople, the covariates accounted for 42% of the variance, organizational commitment accounted for 19% and the interaction term only 2%. Job involvement was not significant. For the part-time salespeople, the covariates accounted for 43% but organizational commitment accounted for only 8%, with job involvement and the interaction term combined accounting for only an additional 2%. This suggests the covariates may be strong mediating variables but it is necessary to allow the main variables and the covariates to enter freely in order to gain a better understanding of the relationship that exists.

When all variables were allowed to enter in a step-wise fashion, for the total sample, organizational commitment was the most significant variable explaining almost half the total variance. The interaction term was significant but improved the R^2 by only one percentage point. Of the covariates, job satisfaction and required job skills were significant. This would again tend to partially support Blau's and Boal's model. Their empirical work found a significant interaction effect but the level of significance they published for the interaction effect was at the .039 (F=4.42) or .046 (F=3.81) level depending on which of their two samples the reader focuses on (see Blau and Boal, 1989, pg. 123.).

Analyzing the part-time and full-time salespeople separately, with all the covariates free to enter, organizational commitment accounted for over half the variance (55%) for the full-time people yet was not significant for the part-time people. As with the analysis of the part-time people before the covariates were considered, the interaction term swamped all other variables. Organizational commitment and job involvement as separate variables were not significant. For part-time salespeople, the step-wise results included three other significant variables; job satisfaction (3% of the variance), required skills (1% of the

variance) and role clarity (1% of the variance).

Discussion

The results presented here lend partial support for the hypothesis that the interaction between job involvement and commitment significantly explains job withdrawal cognitions. Consistent with the Blau and Boal hypothesis, the first hypothesis here about the interaction term predicting intent to turnover in moderated regression approach was supported in the total sample and the full-time sample of salespeople. The data confirms a unique contribution by the interaction term but while statistically significant, in practical terms, only a minor amount of additional variance in turnover cognitions was explained. The results of the step-wise regressions produced a different picture of what is happening. The interaction term for the part-time salespeople was found to enter first in the equation. The interaction term had greater explanatory power than either of the main effect variables but was totally redundant with the main effects.

The second hypothesis stated that organizational commitment would have the strongest association with turnover, and that was supported by the data. Organizational commitment reoccurred as a significant variable in the majority of the results. This supports previous findings about its power as a predictor of intent to turnover, particularly for full-time salespeople.

The third hypothesis; organizational commitment, job involvement and their interaction would predict intent to turnover over and above the covariates was generally supported. In the hierarchical approach where the covariates were forced in ahead of the main effect variables, their group "F" valued was well below that of organizational commitment but well above the "F" values of either job involvement or the interaction. When allowed to freely enter in a step-wise fashion, organizational commitment dominated the "total sample" analysis and that done for the full-time sample but the interaction term dominated the part-timer's analysis.

The results presented in this paper not only add to the body of knowledge about why people leave their jobs but point to the fact that it is important to add an analysis of part-time and full-time workers in samples where both exist. In this sample of telemarketing sales agents, organizational commitment plays a more singular role in a full-time salesperson's withdrawal cognitions while for a part-time salesperson, it appeared there was much more of an interplay between organizational commitment and job involvement.

With the value of the interaction term being the product of organizational commitment scores and job involvement scores, and, given the fact that job involvement was not significant in any of the step-wise procedures, one could conclude that even in the interaction term, organizational commitment dominates the calculated values. The fact that organizational commitment was so significant in this sample, should have significant implications to managers in all industries where turnover is high and the workforce is largely part-time workers. It should signal that one way to reduce turnover is to capitalize on organizational bonding as quickly as possible.

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PERCEIVED CORPORATE ETHICALNESS AND SALESFORCE TURNOVER: A NEW RATIONALE FOR MORE ETHICAL CORPORATE BEHAVIOR

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Abstract

This paper suggests that salesforce turnover intentions can be used to partially price the cost (or benefit) of a more ethical corporate culture in the area of salesforce operations. Statistical tests find an associative relationship between turnover intentions and the level of perceived corporate ethicalness for a retail salesforce.

Introduction

When managers are told by academicians that they should spend money to produce an organization that is more sensitive to ethical and social issues, the response might reasonably be "Why?" and "How much should I spend?" The purpose of this paper is to provide a rationale and methodology to partially answer these questions.

It would seem that there should be a positive relationship between ethical behavior and profitability. In reality, the question is far from settled, at least in part, because "assessing profitability is a relatively clear-cut process, but assessing social responsibility [and ethical behavior] is not" (Aupperle, Carroll, and Hatfield 1985, p. 446). However, it is reasonable to assume that rational corporate decision makers who are asked to commit resources to any purpose expect an eventual return for themselves and other stakeholders. To the degree this is true, a measure that is familiar to managers and somewhat controllable to which a sound financial number can be attached depending upon perceived corporate ethicalness would enable managers to make decisions on matters having ethical (or corporate social responsibility) ramifications to which a cost/benefit figure could be attached. Such a measure appears to exist in the salesforce management literature: turnover.

Review of Literature

Turnover

Turnover - ". . . the cessation of membership in an organization by an individual who received monetary compensation from the organization" (Mobley 1982, p. 10) - is an expensive part of the operation of a salesforce. The replacement cost for a single non-retail salesperson is estimated to be $25,000 to $75,000, with half of the salesforce turning over every two to three years (Fern, Avila, and Grewal 1989). A study of United States and Canadian companies employing 100 people or more and having sales in excess of $50 million found that in 1988 27 percent of salespeople left their job, costing about $40,000 each to replace. Since each of the companies in the study lost about five salespeople each year, the turnover cost for each firm would be about $200,000 (Coleman 1989; Learning International 1989).

For inside retail employees at an entry level, turnover can be in the range of 60 to 200 percent at a cost as high as $1,000 per employee according to Darden, Hampton, and Howell (1989). However, senior personnel executives of a large national chain of discount stores whose salesforce was being considered for inclusion in this study stated that careful study indicated that their direct and indirect turnover costs for one entry level retail salesperson is about $1,500. Since their total annual turnover is about 50,000 salespeople, their total annual turnover costs would be about $75 million. This information suggests that the Darden, Hampton, and Howell (1989) figures represent only direct turnover costs and so is not representative of total turnover costs for a retail salesperson.

It also appears that turnover rates for salesforces are increasing. Coleman (1989) reports that annual turnover rates have increased from 7.6 percent in 1983 to 27 percent in 1988. Jolson, Dubinsky, and Anderson (1987) note expenditure estimates of $5 billion a year just for recruitment and training of replacement salespeople across all U.S. industries.

Retail executives may not clearly understand the significance of the turnover rate nor of the total cost involved. While discussing the inclusion of his retail employees in the sample for this study, a senior corporate executive of a large national department store chain indicated that 100,000 full-time and part-time employees turn over each year at a cost of about $100 each. He did not consider 100,000 new employees each year to be a problem, despite the fact that they indicate turnover costs for that chain of at least $10 million annually.

While a $10 million turnover cost for a billion dollar business may seem insignificant, any reduction would translate directly into increased profits. However, it is likely that this figure represents only direct costs of turnover and therefore greatly understates total turnover costs for the organization, perhaps by as much as $140 million annually if the earlier direct and indirect total turnover cost figure from the discount chain is directly applicable here. Futrell and Parasuraman (1984) observe that "a few companies are beginning to realize that turnover is a sleeping giant, inconspicuously

swallowing a significant portion of their productivity and profits" (p. 33).

Turnover costs are difficult to capture fully because explicit or direct personnel costs are only one portion of the total turnover cost picture. While some turnover may be functional as poor performers depart and are replaced with, hopefully, good performers (Johnston and Futrell 1989), it can also be dysfunctional not only because good performers depart but also due to decreased service levels for customers of both retail and non-retail salespeople (Sager, Varadarajan, and Futrell 1988), leading to increased implicit or indirect costs for the organization. Some of these implicit costs are extremely difficult to measure or estimate accurately (Darmon 1990).

While this study does not directly examine turnover from a dollars and cents perspective, it does seem reasonable to assume that turnover is an expensive part of salesforce operations and a topic worthy of further research. Fern, Avila, and Grewal (1989) observe that "despite the enormity of the salesforce turnover problem, relatively little research has attempted to uncover its antecedents and consequences" (p. 1). Schulz, Bigoness, and Gagnon (1987) note the ". . . paucity of studies investigating turnover intentions among retail personnel . . . " (p. 90). It also does not appear that turnover has been studied very much in relation to ethics.

Salesperson and Sales Management Ethics

Several empirical studies have explored which selling practices are perceived by salespeople to be unethical (Dubinsky, Berkowitz, and Rudelius 1980; Dubinsky and Gwin 1981; Dubinsky and Levy 1985; Levy and Dubinsky 1983); an additional study extended this work to compare the ethical perceptions of salespeople selling industrial goods to those of salespeople selling industrial services (Dubinsky, Ingram, and Rudelius 1985). Correlates of salesperson ethical conflict has been examined (Dubinsky and Ingram 1984), as has the reaction of sales managers to unethical salesperson behavior (Bellizzi and Hite 1989; Bellizzi and Norvell 1991). The ethical decision-making process of sales managers has also been studied (Vitell and Hunt 1990).

Only one empirical study was located which links an ethical value (i.e., "honesty") to turnover intentions. Apasu (1986) found that individual value congruence with organizational values is negatively associated with turnover for a national high-tech industrial goods salesforce. No studies were located which link salesperson or sales manager perceptions of the ethicalness of a corporate culture to a salesforce management construct such as turnover.

Research Design

Variables Used in this Study

The independent variable in this exploratory study is an ethics-related construct - perceived corporate ethicalness. Business ethics are ". . . the application of moral standards to the conduct of individuals involved in organizations through which modern societies produce and distribute goods and services" (Buchholz 1989, p. 4). "Corporate" refers to the notion that the construct is contained within the corporate culture, which ". . . involves the . . . values and norms which guide employee behavior and have an often powerful impact upon organizational effectiveness" (Huse and Cummings 1985, p. 350). "Perceived" reflects the operation of individual perceptual processes which allow each individual to create his or her own subjective reality (Assael 1984) which may differ from objective reality (Apasu 1986; Bettman 1979); it is to perceived reality that the individual tends to respond (Douglas, Field, and Tarpey 1967). Perceived corporate ethicalness is therefore what an individual believes others' conduct is within the organization weighed by their own moral standards which govern beliefs about what this conduct should be. A number of individual and societal analytic frameworks may be combined variously in an individual to produce a unique scale with which to weigh corporate ethicalness.

The dependent variable is a salesforce management construct - turnover intentions. Turnover has been defined above as ". . . the cessation of membership in an organization by an individual who received monetary compensation from the organization" (Mobley 1982, p. 10). It can be divided into voluntary and involuntary separations, the former being employee-initiated and the latter either organization-initiated or involving mandatory retirement or death (Mobley 1982). While there are many possible causes of turnover (Jolson, Dubinsky, and Anderson (1987) list 15 statistically significant predictors of turnover), not all turnover is considered bad for the firm; there are positive results as well (Johnston and Futrell 1989; Mobley 1982). For example, Johnston and Futrell (1989) found in their sample of members of an outside salesforce for a consumer goods manufacturer that the turnover rate was 27 percent, of which only 13 percent represented a loss of salespeople the company valued. This suggests that only about half of the turnover that occurred in that study was detrimental to the organization. Therefore it appears that turnover should be considered on a selective rather than an overall basis (Darmon 1990; Johnston and Futrell 1989; Lucas et al. 1987).

Description of the Sample

The organization under study is a nationwide chain of 725 company-owned retail specialty shops. In order to receive cooperation, anonymity for the organization and its employees was promised. The stand-alone stores are organized into three divisions, with about 241 stores per

division. Each division covers about one-third of the continental United States, roughly in a Western, Midwestern, and Eastern configuration. To avoid a confound, only full-time salespeople and the store managers were surveyed.

A concern for possible differences across divisions led to stratification on this variable. A proportional random sample was then taken from a list of stores in each division. A total of 300 stores were surveyed.

Measures Used

A self-administered questionnaire containing the following two measures was used to collect data from the sample. The Ethical Climate Questionnaire developed by Victor and Cullen (1988) was used to measure respondents' level of perceived corporate ethicalness. The Staying or Leaving Index developed by Bluedorn (1982) and modified by Johnston et al. (1990) was used to measure respondents' turnover intentions.

Methodology

An appropriate technique to examine the turnover measure is the Analysis of Covariance (ANCOVA). It allows the response to be adjusted for the effects of one or several concomitant variables (Cochran 1957; Montgomery 1984), thus allowing the tests for differences in the means of treatment effects to be more sensitive (Hair, Anderson, and Tatham 1987) while not increasing the error variance (Duncan 1974). Differences in turnover intentions were sought across divisions and between managers and salespeople. This is a fixed effects model since the treatments have been selected by the researcher. Consequently, the conclusions that are reached should not be extended to other treatments not examined here (Montgomery 1984).

It is also necessary to know if there are differences across divisions and between managers and salespeople for the measure of perceived corporate ethicalness in order to properly conduct the subsequent analysis. Since there are no covariates for this construct, a fixed-effects, two-factor Analysis of Variance (ANOVA) with interactions is an appropriate procedure for this purpose (Montgomery 1984; Neter and Wasserman 1974).

Nonresponse Error and Measure Reliability

Nonresponse error was examined by considering the response rate. Of the 1,500 questionnaires sent out, 468 were returned for a 31.2 percent response rate. Of the 468 questionnaires returned, 393 (233 from salespeople and 160 from managers) or 26.2 percent were usable. This suggests that nonresponse error is probably not a serious problem.

Measure reliability was examined using coefficient alpha. Coefficient alphas for the turnover measure (.940 here versus .924 to .963 previously reported by Johnston et al. (1990)) and Ethical Climate Questionnaire (.827, .855, .858, .726, and .730 here versus .800, .790, .790, .710, and .600 previously reported by Victor and Cullen (1988)) all compare favorably with other studies.

Results

The results indicate that managers who perceive the corporate culture to be more ethical are less likely to leave the organization. This result also holds separately for salespeople. These results were reached as follows.

First, an ANOVA conducted on the measure of perceived corporate ethicalness (i.e., the Ethical Climate Questionnaire) indicated no significant difference across divisions ($p = .9753$) or between managers and salespeople ($p = .5731$) at alpha equals .05. This suggested that managers and salespeople perceive the ethicalness of the corporate culture similarly.

Second, an ANCOVA on the turnover measure indicated no significant difference at alpha equals .05 across divisions ($p = .9777$). It did show a significant difference between managers and salespeople ($p = .0001$). Of the covariates (i.e., age, education, gender, income, and tenure), only education was significant ($p = .0001$). (In order to concentrate on the main theoretical implications, covariates are not further examined here.)

Then, by using mean scores on the measure of perceived corporate ethicalness to divide respondents into high and low perceived corporate ethicalness groups, an examination of the influence of perceptions of corporate ethicalness on turnover intentions could be made. The preceding analysis suggested that this could be done by collapsing the data across divisions and, in the case of turnover, creating high and low perceived corporate ethicalness groups separately for managers and for salespeople.

Finally, ANCOVAs found significant differences at alpha equals .05 between managers in the high and low perceived corporate ethicalness groups ($p = .0032$) and between salespeople in these groups ($p = .0001$). The adjusted least squares means of the high and low perceived corporate ethicalness groups for managers are 2.00 and 2.76, respectively; for salespeople 3.04 and 4.39, respectively. This indicated that separately for managers and for salespeople those who perceive the organization as more ethical are less likely to leave.

Discussion

The fact that both managers and salespeople who perceive the corporate culture to be less ethical have greater intentions to leave the organization tends to support the notion that more ethical corporations should be more profitable in the long run to the degree higher

turnover costs in the salesforce of less ethical organizations reduces net profits. This leads in the direction of showing there is a relationship between ethics and costs. Such an associative relationship between these two variables suggests that turnover can be used to place a partial price on unethical corporate behavior or socially irresponsible behavior leading to a lessening of the perceived ethicalness of the corporate culture.

Within a given organization (since different organizations should not be mixed to avoid a confound on corporate culture (Kelly, Skinner, and Ferrell 1989; Victor and Cullen 1988)), a longitudinal study indicating differences in perceived corporate ethicalness could be linked to changes in turnover rates. Once this turnover had been divided into voluntary and involuntary separations and voluntary separations into separations for good and poor performers (i.e., separations for people the organization did and did not want to retain), a fairly sound relationship between changes in perceived corporate ethicalness and detrimental turnover should emerge for the time period studied. This change could be converted to a dollar cost of turnover to the degree the organization can capture accurately direct and indirect turnover costs.

Such a figure could be used by managers to partially price the cost (or benefit) of incorporating, or not incorporating, ethical considerations that influence perceived corporate ethicalness into corporate decision making. While it is clearly difficult to parcel out the effects of other variables which influence turnover, demographic covariates of turnover are unlikely to change greatly over a study period (such as a year). Other variables that directly influence turnover (such as job satisfaction) may be themselves influenced by the perceived ethicalness of the corporate culture, leading to a turnover effect that may capture the summary influence of perceived corporate ethicalness on other variables which influence turnover. Consequently, as researchers better understand the influences of this new construct on relatively well understood salesforce management constructs, more precise relationships should emerge. Of course, this still does not fully capture costs (or benefits) associated with the influences of the ethicalness of the perceived corporate culture on external publics of the organization under study, but it does lead toward developing a relationship between cost and a more ethical corporate culture in a limited area of organizational operations.

Conclusions

The results of this research suggest that managers who question why money should be spent to produce an organization that is more sensitive to ethical and social issues could be told that it appears managers and salespeople who perceive the corporate culture to be more ethical are less likely to leave the organization. Less turnover suggests lower turnover costs which should potentially lead to more profits. Consequently, the good news is that budgeting for improved corporate ethicalness in light of these findings appears to be both rational and defensible, especially to stockholders, to the degree lower turnover costs can be translated in the long run into higher returns stockholders value.

It is more difficult to tell the manager precisely how much to spend on improving corporate ethicalness, as in using a marginal approach, in part because of the present difficulty of decomposing the causes of turnover and then precisely accounting for that part attributable to perceptions of a more ethical corporate culture. However, this research does suggest some money could be profitably budgeted to improve perceptions of corporate ethicalness, but not more than the sum of direct and indirect turnover costs of employees the organization wanted to retain.

As in most studies, this research design has several inherent limitations which are reported to provide a frame of reference for the use of the findings and so that future researchers may overcome these limitations in their own research designs. Since the design uses an individual's intention to leave as a surrogate for turnover, it is not possible to learn for certain if planned turnover is voluntary or involuntary (Mobley 1982), nor if the turnover is or is not beneficial to the firm (Johnston and Futrell 1989).

It is not possible to draw causal inferences since all of the variables in the study are measured simultaneously (Hunt 1983; Johnston and Futrell 1989); the relationships found are associative in nature. Since this design does not include a plan for later replication, it is also not possible to determine how the relationships under study behave over time.

Using only one company in one industry creates two additional limitations. One is the difficulty of generalizing safely to other salesforces (Johnston and Futrell 1989). The second is the difficulty of generalizing to other industries since only one industry is involved (Johnston, Parasuraman, and Futrell 1989). A further generalization problem is that to the degree the occasion of responding to the survey instrument tends to be a unique social occasion, generalization to routine sales activities may be compromised (Rosenberg and Turner 1981).

Finally, it would be useful to know if these results are consistent over time. It would be useful to know if these results are specific to this organization or if the results can be generalized to other organizations or other industries. And, it would be useful to know what organizational factors most influence perceptions of corporate ethicalness so that resources might be selectively targeted to these more sensitive areas to maximize resource effectiveness. Future studies could address some of these issues.

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GATEKEEPER PERCEPTIONS: IMPLICATIONS FOR IMPROVING SALES ETHICS AND PROFESSIONALISM

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Abstract

An investigation was undertaken to understand how salespeople interact with gatekeepers when attempting to gain an initial appointment with a buyer's firm. Several unprofessional behaviors were identified as contributing to gatekeepers' negative attitude towards professional salespeople, which in turn affects their decision to deny or grant a salesperson an appointment. Sales management implications are presented.

Introduction

In today's highly competitive selling environment, industrial customers are becoming more demanding, value conscious and selective. For instance, many firms are reducing their lists of approved vendors, such as Xerox, which just cut its list of 5,000 vendors down to only 450 (Ingram 1990). While competition is increasing, so are selling costs. Recent estimates place the average cost of a single sales call at approximately $200 (Ingram 1990). Given such circumstances, salespeople must establish a competitive edge. One method for gaining a competitive advantage is to practice a customer oriented sales approach. Such an approach employs truthful, non-manipulative tactics which satisfy the long-term needs of both the customer and the selling firm (Ingram and LaForge 1992). An important element of this tactic is the establishment of a long-term relationship with the customer.

Building a relationship begins when the salesperson first makes contact with a member of the buying firm. Often, the buying firm's secretary or receptionist is the first person a salesperson will encounter. As a gatekeeper, the secretary/receptionist may screen salespeople to determine those suitable for further consideration. As such, the secretary/receptionist acts as a key link in the organizational buying process. Hence, salespeople must be prepared to take steps to establish an on-going relationship beginning with their initial contact with the secretary/receptionist.

Despite their potential importance, little attention has been given to the secretary/receptionist as a vital link in the organizational buying process. One of the first steps involved in establishing a customer relationship is gaining the initial sales appointment. This typically involves salespeople making contact with the prospective buying firm's secretary/receptionist via telephone or in person. This initial contact may spell either success or failure depending upon the salesperson's approach.

To gain a better understanding of salesperson conduct in gaining an appointment, a study was undertaken to examine secretaries/receptionists' perceptions of salespeople seeking an initial appointment and their reactions based on these perceptions. By understanding the preferred conduct for gaining an appointment, salespeople may be able to increase their chances of successfully gaining appointments and establishing long-term customer oriented relationships.

Our discussion is divided into three parts. First, we briefly review the relevant literature. Second, we report research results from an examination of 262 secretary/receptionists who provide insights about how salespeople behave when seeking an appointment for the first time with someone in their organization. Finally, we offer key managerial implications.

Relevant Literature

Organizational buying behavior is best understood as work behavior that involves interactions amongst several participants such as buyers, deciders, influencers, gate-keepers and users (Anderson and Chambers 1985). Buying is rarely a transaction in and of itself, but is rather part of a total decision-making process. Hence, several people in the purchasing firm have the power, either formally or informally, to influence the purchasing decision (Haas 1986).

Haas (1986) describes several roles of buying influences within the firm (i.e. initiators, gatekeepers, influencers, deciders, purchasers, users). These participants typically comprise what is known as the buying center, although it is often not formally recognized as such on the organizational chart. One type of buying influence, the gatekeeper, is responsible for controlling information or access, or both, to decision makers. Secretaries or receptionists often serve as gatekeepers for purchasing agents or executives involved in purchase decisions.

Secretaries/receptionists play a vital role in the organizational buying process, particularly in new-task buying. As gatekeepers, they have access to and control over relevant information (Zaltman and Bonoma 1977). Controlling the flow of information is a critical component of their job since they are responsible for evaluating the demands on decision makers' time and attention (Conway 1990). Their power to control information is evidenced by an analysis of mail and phone calls of key decision makers in major corporations. It was found that 25 percent of the messages destined for the decision makers made it to one gatekeeper and went no further (Keuch 1987).

By virtue of their control over information, secretaries/receptionists possess information power, a form of influence exerted when a target is influenced by the information provided (or withheld) by the source (Raven 1965). The secretary/receptionist can influence a purchase decision by providing or withholding information concerning a prospective seller, or controlling the timing and manner of its dissemination. Information from preferred vendors may be allowed to reach other members of the buying center, while information from less favorable vendors may be thwarted or even distorted (Zaltman and Bonoma 1977). Moreover, strategic contingencies theory (Hickson et al. 1971) suggests that informational access and control are a source of power because they can reduce the uncertainty of buying center members.

Anderson and Chambers (1985) claim that the information sources to which an individual is exposed are key determinants influencing product/vendor expectations, which are considered an important component of the purchasing activity process. Expectations are defined as the "perceived potential of alternative suppliers and brands to satisfy a number of explicit and implicit objectives in any particular buying decision" (Sheth 1973, p. 52). Salespeople have an opportunity to positively or negatively influence information sources (e.g. gatekeepers) and thus subsequently influence expectations.

This opportunity arises due to the close connection between the gatekeeper and the salesperson. Zaltman and Bonoma (1977) believe the gatekeeper represents the connection between the buying firm and the selling firm. Further, they suggest that the best way for the selling firm to get information into the buying firm is through the boundary spanning gatekeeper. It has been found that boundary-spanning employees, such as gatekeepers, are more influential in the buying process than persons who do not have direct links to the environment (Aldrich and Herker 1977; Pettigrew 1972, 1975; Whetten 1978). Ronchetto, Hutt and Reingen (1989) suggest that salespeople who are attempting to identify influential members of the buying system might give special attention to organizational actors who are close to the organizational boundary.

Given the secretary/receptionist is typically the initial contact person, the salesperson must be prepared to make a good impression from the outset. Therefore an investigation was undertaken to understand how salespeople interact with professional secretaries/receptionists when attempting to gain an initial appointment with a firm. It is hoped that by understanding present practices and perceptions salespeople may learn what is necessary to improve their chances of gaining an initial appointment.

Method

Questionnaire Development

Focus group interviews were conducted with twelve gatekeepers (secretaries and administrative assistants) at a large for-profit hospital in a city of three hundred thousand in the Midwestern United States. The members of the focus group represented every functional area of the hospital which had regular interactions with salespeople. From the focus groups, fourteen sales behaviors were identified which the gatekeepers deemed to be particularly annoying. These behaviors were confined to the time period preceding or during their first face-to-face encounter with salespeople who had not previously called upon the gatekeeper's department. These sales behaviors are shown in **Table 1**.

Data Collection

A total of 131 undergraduate students in four upper-division sales management classes were required to hand-deliver and personally collect two questionnaires each as a non-graded requirement of the course. A summary of the research was presented in class by the instructors, who then led a discussion of the potential implications of the fourteen sales behaviors.

Potential respondents were checked to ensure that their jobs required regular interaction with salespeople in a gatekeeping role. All respondents were identified by name, job title, phone number and organization. Students were advised that random verification of respondents might occur, but no verification procedure was employed.

This procedure resulted in 262 usable responses; with respondents representing a wide variety of industries (i.e., consumer services, retailing, non-profit, manufacturing, wholesaling, and health care). The respondents' average age was 34.4 years. In addition, respondents had an average of 10.4 years of experience; with an average of 6.7 years in their current organizations. Respondents saw an average of 7 salespeople per week.

Measurement of Variables

Salesperson Conduct. Conduct was assessed using 14 statements designed to tap gatekeepers' perceptions of salesperson behavior. The statements dealt with such salesperson behaviors as making and keeping appointments, telephone usage, identification of intent, and general behaviors toward the gatekeeper. Using a 7-point Likert scale ranging from "never" to "always", gatekeepers indicated how often salespeople engaged in the 14 behaviors.

The dimensionality of the 14 items was assessed using exploratory maximum-likelihood factor analysis with an orthogonal rotation. The results indicated a three factor solution. Following Rummel (1967), a .40 cutoff was used for item-factor selection. An examination of the items loading on each of the three factors revealed that all items loaded on separate factors, with factor loadings ranging from .416 to .807. The three factors accounted for 50.7 percent of the variation in the 14 items. Factors were assigned descriptive titles based on the content of the items loading on each factor. The first factor was labeled IDENT because its items refer to salesperson behaviors dealing with identifying themselves or the purpose of their visit. The IDENT factor accounted for the majority of the variance (33.3 percent) and had an eigenvalue of 4.66. The second factor was labeled ABUSE because its items address how salespeople treat gatekeepers (i.e., disrespect for or wasting the time of gatekeepers). This factor accounted for 9.2 percent of the variance and had an eigenvalue of 1.29. The final factor was labeled APPOINT since its items describe salesperson behaviors associated with making and keeping appointments. The APPOINT factor had an eigenvalue of 1.15 and accounted for 8.2 percent of the variance.

The reliabilities of the three behavior scales were assessed using coefficient alpha (Cronbach 1951). Coefficient alphas were .76 for IDENT, .75 for ABUSE, and .65 for APPOINT; all of which exceeded or were close to Nunnally's (1978) criteria for acceptable reliability in basic research. Aggregate measures were then created for each of the three scales by averaging across the raw scores for the items loading on each representative factor. A list of items included in the behavior scales can be found in **Table 1**.

Perceptions of Salesperson Professionalism and Gatekeeper Behavior. Gatekeeper attitudes toward salesperson professionalism were assessed via a single item. Using a 7-point scale, respondents were asked to indicate their agreement with the statement, "Salespeople who seek appointments with people in my organization behave in a professional manner." Gatekeepers were also asked whether they denied appointments to salespeople who act unprofessionally by indicating their agreement with the statement, "Requests for appointments are denied by me if salespeople act unprofessionally." In addition, respondents were asked whether their job responsibilities involve the screening of salespeople. This variable was included in the model to better assess the effect of respondent

TABLE 1
FACTOR ANALYSIS RESULTS FOR SALESPERSON BEHAVIORS

	FACTOR 1 (IDENT)	FACTOR 2 (ABUSE)	FACTOR 3 (APPOINT)
1. Salespeople arrive unannounced to make a sales call	.626	.122	.030
2. When salespeople call you on the telephone, they pretend to know the person they are trying to contact when they do not	.659	.268	.026
3. When salespeople call you on the telephone, they do not properly identify themselves	.709	.117	.026
4. Salespeople are reluctant to clearly state the purpose of their visit	.655	.083	.341
5. Salespeople are evasive to secretaries about the purpose of a requested sales call	.622	.240	.141
6. Salespeople are overly persistent in their attempts to make appointments	.416	.373	.395
7. Salespeople treat secretaries in a disrespectful manner	.378	.437	.105
8. Salespeople waste my time with unnecessary conversation	.234	.573	.260
9. Salespeople expect me to intervene on their behalf with my supervisor	.262	.635	.038
10. Salespeople act as if their time is more important than mine	.180	.672	.258
11. Salespeople request that I contact other people in the organization to set up appointments for sales calls	.086	.756	-.068
12. Salespeople do not take adequate steps to identify the proper person to contact for their sales presentations	.093	.590	.272
13. Salespeople do not arrive promptly for appointments	.030	.169	.807
14. Salespeople do not cancel appointments which they are unable to keep	.168	.128	.790
Eigenvalue	4.66	1.29	1.15
Percent of Variance	33.3	9.2	8.2
Reliability Estimates (Coefficient Alpha)	.76	.75	.65

attitudes on whether they denied appointments to unprofessional salespeople.

Data Analysis

Based on theoretical and logical grounds, it was expected that salesperson behaviors would affect gatekeeper attitudes and actions (denying appointments) directly and actions indirectly through their effect on gatekeeper attitudes. Denying appointments was also thought to be a function of gatekeeper attitudes and screening activities. These relationships are summarized in the research model shown in **Figure 1**. Although no formal research hypotheses were advanced, the effects depicted in the model were tested via path analysis and an assessment of the significance of the standardized regression coefficients. In this vein, a three-stage path analysis was conducted. In the first stage, a fully-recursive path model was examined solely to assess the fit of later models. In the second stage, the research model was tested for fit and the significance of its path coefficients. Based on this analysis, all non-significant paths were eliminated and a final trimmed model was examined for fit, as well as the decomposition of model effects. One of the main benefits of using path analysis is the ability to decompose zero-order correlations between model components into direct, indirect, spurious, and unanalyzed components.

The significance of the indirect paths was assessed by a procedure outlined by Venkatraman (1989). Using this procedure, an approximate t-statistic can be computed to test the significance of an indirect path through a mediator (Sobel 1982).

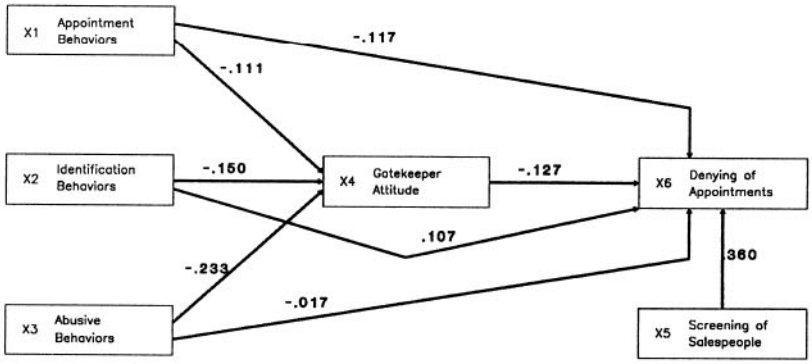
Results

Descriptive statistics and intercorrelations for the study variables are provided in **Table 2**. As can be seen from the table, the correlations between the three behavioral factors and gatekeeper attitudes are rather large and statistically significant ($p. < .01$). In contrast, only the IDENT factor is significantly correlated with gatekeepers denying appointments. In addition, denying appointments is not correlated with gatekeeper attitudes, but is strongly correlated with screening activities.

To assess the fit of the research model, a procedure outlined by Pedhazur (1982) was utilized. This procedure tests the model's ability to reproduce the given correlation matrix by comparing it with a fully recursive model. The procedure involves the computation of Q, a fit statistic. Q can range from zero to one; with values close to 1.00 indicating good model fit. Using this procedure, Q had a value of .97; indicating good fit between the research model and the data.

Tables 3 and **4** indicate that each of the three salesperson behavior dimensions has a significant, negative impact on gatekeeper attitudes toward salesperson professionalism. Thus, the incidence of unprofessional behaviors by salespeople tends to lower gatekeepers' overall attitudes toward salesperson professionalism. Of the three behavior dimensions, ABUSE seems to have the greatest impact on attitudes (P43 = -.233); followed by the IDENT (P42 = -.150) and APPOINT (P41 = -.111) dimensions.

FIGURE 1
RESEARCH MODEL



R-Square for: X6 = .16; X4 = .16; Overall = .30

TABLE 2
MEANS, STANDARD DEVIATIONS, AND CORRELATIONS FOR ALL STUDY VARIABLES

	Mean	Standard Deviation	1	2	3	4	5
1. APPOINT	2.74	1.21					
2. IDENT	4.08	1.04	.36**				
3. ABUSE	3.48	1.04	.39**	.59**			
4. ATTITUDE	2.57	1.19	.28**	.33**	.36**		
5. DENY	3.53	1.96	.05	-.16*	-.11	-.08	
6. SCREENING	3.25	1.89	-.01	-.15*	-.12*	.11	.33**

* p < .05; ** p < .01 (both 2-tailed)

TABLE 3
PATH ANALYSIS RESULTS

Dependent Variable	Independent Variables	Research Model Coefficients: Regression	Research Model Coefficients: Path[b]	Research Model Coefficients: R^2	Trimmed Model Coefficients: Regression	Trimmed Model Coefficients: Path[b]	Trimmed Model Coefficients: R^2
Denial of Appointments (DENY)	SCREENING	.368	.360‴	.162	.383	.374‴	.146
	ATTITUDE	-.206	-.127‴		-.206	-.127‴	
	APPOINT	-.187	-.117'		....	....	
	IDENT	.201	.107		....	....	
	ABUSE	-.031	-.017		....	....	
	constant	3.072			2.835		
Gatekeeper Attitude (ATTITUDE)	APPOINT	-.110	-.111'	.163	-.110	-.111'	.163
	IDENT	-.174	-.150‴		-.174	-.150‴	
	ABUSE	-.267	-.233‴		-.267	-.233‴	
	constant	.648			.648		

[b]Path coefficients are standardized regression coefficients

'p < .10; ‴p < .05; ‴'p < .01 (all 2-tailed)

Tables 3 and 4 also indicate that a gatekeeper's denial of appointments is significantly associated with screening activities (P65 = .374), the gatekeeper's attitude (P64 = -.127), and the salesperson's behaviors with respect to making and keeping appointments (P61 = -.117). Of these three, screening has the greatest impact on the denial of appointments. Thus, the more the gatekeeper sees screening salespeople as a part of their jobs, the more likely the gatekeeper is to deny appointments to unprofessional salespeople. The gatekeeper's attitude has the second largest impact on denials; with lower attitudes being associated with the increased denial of appointments. Finally, the more a salesperson engages in unprofessional behaviors with respect to making and keeping appointments, the more likely the gatekeeper is to deny appointments to the salesperson. Since the IDENT and ABUSE factors had no significant effect on the denial of appointments, these two paths were dropped in the trimmed model.

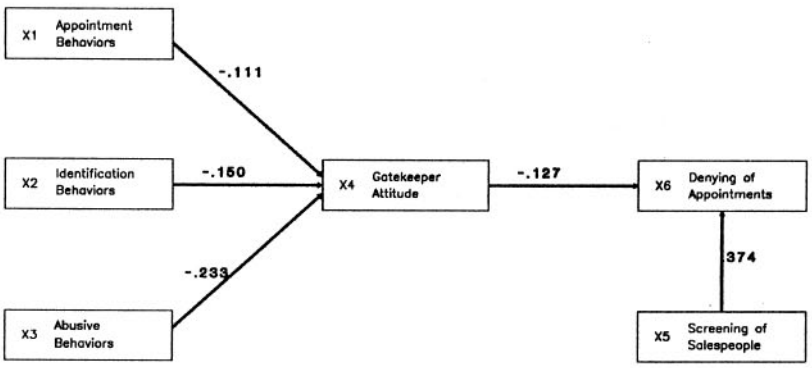
TABLE 4
SIGNIFICANCE TESTS FOR DIRECT AND INDIRECT PATHS

Path Label	Research Model Path Coefficient*	Research Model T-value	Trimmed Model Path Coefficient*	Trimmed Model T-value
SCREENING --> DENY	.360	5.93'''	.374	6.31'''
ATTITUDE --> DENY	-.127	-1.94''	-.127	-2.14''
APPOINT --> DENY	-.117	-1.79'	....	...
IDENT --> DENY	.107	1.42	....	...
ABUSE --> DENY	-.017	- .22	....	...
APPOINT --> ATTITUDE	-.111	-1.73'	-.111	-1.73'
IDENT --> ATTITUDE	-.150	-2.05''	-.150	-2.05''
ABUSE --> ATTITUDE	-.233	-3.14'''	-.233	-3.14'''
APPOINT --> ATTITUDE --> DENY	.014	.96	.014	.96
IDENT --> ATTITUDE --> DENY	.019	.96	.019	.96
ABUSE --> ATTITUDE --> DENY	.030	1.13	.030	1.13

*Path coefficients are standardized regression coefficients

'p < .10; ''p < .05; '''p < .01 (all 2-tailed)

FIGURE 2
TRIMMED MODEL



R-Square for: X6 = .15; X4 = .16; Overall = .29

The Trimmed Model

In analyzing the trimmed model, an additional path was eliminated due to non-significance (P61). This path represented the effect of the APPOINT factor on the denial of appointments. After this path was eliminated, the final trimmed model, as shown in Figure 2, was examined for fit. Using the procedures outlined in Pedhazur (1982), Q for the trimmed model was .95; indicating good fit between the data and the trimmed model. Table 4 indicates the paths that were retained from the analysis of the previous model.

An examination of the trimmed model suggests that the effects of salesperson behaviors on the denial of appointments are fully mediated by gatekeeper attitudes toward salesperson professionalism. None of the indirect path coefficients between salesperson behaviors and the denial of appointments are statistically significant. However, all of the indirect effects are positive. As before, the most important determinant of gatekeeper attitudes is salesperson behaviors that are seen as abusive to gatekeepers (P43 = -.233). Also as before, the strongest determinant of the denial of appointments is screening activities carried out by gatekeepers (P65 = .374). The attitude of salesperson professionalism held by gatekeepers also remains negatively associated with the denial of appointments (P64 = -.127).

Implications and Conclusion

This study finds that salespeople's behaviors affect gatekeepers' attitudes about the professionalism of salespeople, and that these attitudes in turn affect whether the gatekeeper denies an appointment. Several unprofessional behaviors were identified as contributing to gatekeepers' negative attitudes towards salesperson professionalism.

Gatekeepers are most likely to deny appointments when salespeople's actions exhibit disrespect for or waste their time. Additionally, salespeople who fail to identify themselves or

the purpose of their visit are also likely to be denied an appointment. Finally, salespeople's failure to arrive promptly for an appointment or cancel one they can not keep is likely to lead to gatekeepers' negative attitudes towards salesperson professionalism, and subsequent appointment denial.

These behaviors are not only undesirable, but many may be considered unethical. Such behaviors are not consistent with the image of a professional salesperson. A professional salesperson advances the profession through proper behavior and behaves in a legally and ethically acceptable manner (Ingram and LaForge 1992). Moreover, these actions impede the facilitation of trust building. Customer trust is based on the salesperson being perceived as dependable, honest, competent, having a customer orientation, and being likeable (Swan, Trawick and Silva 1985). Many of the behaviors leading to gatekeepers' negative attitudes toward salesperson professionalism run contrary to the components of trust building. Earning a buyer's trust has been found to facilitate the development and maintenance of long term buyer-salesperson relationships (Hawes, Mast and Swan 1989).

Sales managers are in a position to circumvent these damaging behaviors through salesforce training and socialization. Through salesforce socialization, salespeople acquire the knowledge, skills, and values to perform their jobs (Dubinsky et al. 1986). By actively integrating corporate ethical values into the training and socialization process these types of behaviors may be avoided.

Salespeople must be trained how to properly make an initial appointment. Salespeople would be well served to be honest when attempting to gain an appointment with the buyer's firm. This includes properly identifying him/herself and stating the true purpose of the visit. Moreover, salespeople should arrive on time for appointments and notify the buying firm if an appointment can not be made. Finally, salespeople should treat gatekeepers with courtesy and respect. They should not make unreasonable demands upon the gatekeeper. Salespeople should value the gatekeeper's time as they do their own. By properly preparing salespeople to make appointments, the potential for long-term customer relationships may be enhanced.

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EXPLORING THE USE OF INCENTIVES IN FUNDRAISING BY NOT-FOR-PROFIT ORGANIZATIONS

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Abstract

The use of direct mail in fundraising continues to grow. Evidence of effectiveness accounts for much of this growth but also, of course, brings with it increased competition. Many fundraisers seeking means to differentiate their efforts have turned to the use of incentives. This paper explores this growing phenomenon. A random sample of 377 not-for-profit organizations were surveyed regarding their use of incentives in fundraising. Results indicate that only 18.7% of the organizations were using incentives but of those who do, the effort was believed to be fairly effective. Seventy percent of respondents evaluated effectivess using variety of measures. A third of all not-for-profits surveyed intend to use incentives in conjunction with their direct mail efforts in the future.

Introduction

The use of direct mail techniques by fundraisers has long been a common approach. While many organizations have turned to the use of other methods such as lotteries, telemarketing, telethons, and even sales of goods and services, "direct mail is still the primary way for social services to raise money," according to R. Michael O'Hara, president of AB & C, Inc. a direct-response processing firm that counts many major not-for-profit fundraisers as clients (Norris, 1987). This is unlikely to change any time soon since telemarketing, direct mail's major competitor, is finding increasing numbers of phone solicitation subjects turned off by the effort. A recent report found that 28% minded receiving telemarketing calls. In fact, 82% preferred not to get telemarketing calls at all (McBrearty, 1989).

By contrast, direct mail fundraising efforts have proven increasingly effective in recent years as organizations have expanded their use of sophisticated databases and careful target marketing. This result has attracted fundraisers in even greater numbers to the use of direct mail, making increasing competition for fundraising dollars even greater than previously. As more not-for-profit organizations turn to direct mail as a means of fundraising, it becomes increasingly important to determine how the process should be implemented to give the organization a competitive advantage. One method generally believed to increase response from direct mail appeals of any type, is the use of incentives. The purpose of this study is to explore the use of incentives by not-for-profit organizations as a means of describing the use of direct mail appeals for funds.

Incentives and Responses

Incentives of various types have commonly been used by marketing researchers as a means of improving the response rates for mail surveys. Little research has been done into the effectiveness of such efforts however. Gajraj, Faria, and Dickinson (1990) compared the use of lotteries, monetary, and gift incentives on the response rate, speed, and cost of mail surveys. Gift incentives were found to be the least effective of the three. This is of particular interest to not-for-profits since gifts are the most common type when incentives are used (Gajraj et al., 1990). London and Dommeyer (1990) also found gift incentives to be less effective than sweepstakes or monetary incentives in increasing response to industrial mail surveys.

Gift incentives or premiums as they are sometimes called, are commonly used to encourage magazine subscriptions. Publications as diverse as ***Time***, ***Business Week***, ***Mother Jones***, and ***The American Spectator*** regularly use gift incentives. While no published research on the effectiveness of efforts exists, the firms presumably find it successful.

While fundraisers can look to marketing researchers and commercial sector firms as indicators of the effectiveness of gift incentives, apparently no research has been done on the use of such incentives in conjunction with fundraising efforts by not-for-profit organizations.

Methodology

The Directory of Nonprofit Organizations, which contains a list of 140,000 major not-for-profits covering the fields of social, health, the environment, religion, education, and the arts, was used as a population frame. In order to provide some consistency across organizations, not-for-profits from the fields of health, social, and the environment were selected. A random sample of 377 organizations from across the U.S. were chosen and phone surveys were administered. Surveyers spoke to the vice-president or director of fundraising or another person, identified by the organization, as responsible for making the decision on fundraising programs. Callbacks were implemented until all organizations were reached.

Since the study was exploratory in nature and no direct hypotheses were offered, analysis of the data took the form of frequencies and mean responses. This was deemed appropriate at this point in the investigatory process in order to determine the feasibility and appropriateness of a more sophisticated investigation and analysis in the future.

Results and Discussion

Initial results from the present study appear to support the earlier contention that direct mail is a common method of fundraising among not-for-profit organizations. Seventy-one percent (268) of the 377 organizations surveyed use direct mail in their fundraising efforts. Furthermore, the effort appears to be quite extensive with the average number of prospects on an organization's mailing list being 30,325 in 1990.

While these figures do appear to support the use of direct mail, the use of incentives does not appear to be a common method of appeal amongst the not-for-profit fundraisers surveyed. Only 18.7% (50) of those using direct mail were using an incentive as part of the initial appeal. All appeals fell into the category of gift incentives with no reports of monetary incentives,

sweepstakes, or lotteries. Table One lists the types of incentives being used. Figures total to greater than 100% since some organizations use more than one type of incentive. The unit cost of the incentives used averaged less than $0.50. The total percent of the organization's fundraising budget allocated to direct mail incentives averaged 15.1%.

Respondents were queried as to when the incentive was sent. Forty-five percent of those using incentives sent them after the donation was received. Thirty-five percent were sent with the direct mail solicitation and the final twenty percent sent an incentive at both points in time.

While the percent of organizations using incentives was low, the good news is that a fairly high percentage of those who do use them, measure the effectiveness of their incentive program. Seventy percent of those responding who have incentive programs, measure the effectivess of those programs. Reported effectiveness measures included the following:

1. Rate of return to the appeal,
2. Number of donations generated,
3. Number of new donors or members generated,
4. Participation level in events,
5. Computer tracking.

TABLE ONE
TYPES OF INCENTIVES BEING USED IN FUNDRAISING

	Reported Frequency*
Publications or pamphlets	29.5%
Stickers	16.3%
Address Labels	15.9%
T-Shirts	13.6%
Pins	11.4%
Calendars	9.1%
Cards	9.1%
Mugs	9.1%
Pens	6.8%
Other	67.4%

* Total exceeds 100% due to organizations using multiple incentives.

When asked to rate the effectiveness of their incentive program on a ten point scale with one being "not effective" and a ten being "very effective", the mean rating was 6.13.

The study suggests that the attributes of an incentive program vary in importance. Table Two lists four attributes that were rated with respect to importance for incentive programs. There was a significant difference between the ratings variables.

Table Three lists respondents views of the most important attribute when considering incentive programs as measured by frequency of mention. A significantly greater percentage of respondents rated continous exposure of the organization's logo as more important than incentive effectiveness. This appears to suggest that the objective of an incentive program, for many organizations, is to increase organizational awareness rather than to increase actual dollars raised. Effectiveness measures should hence be developed only after this distinction in purpose is clearly defined.

TABLE TWO
IMPORTANCE RATINGS OF INCENTIVE PROGRAM ATTRIBUTES

Attibute	Importance Rating*
Price	7.90
Fast Delivery	6.37
Quality	8.26
Continuous Exposure of Organization's Logo	8.26

*Importance rating scale was 1-10 with 1 being "not important" and 10 being "very important"

Thirty-two percent of the total sample reported planning to use direct mail incentives in the future. This represents a 13.3% increase from current reported usage and supports the idea that usage of such methods is increasing.

TABLE THREE

MOST IMPORTANT ATTRIBUTE WHEN CONSIDERING AN INCENTIVE PROGRAM

Attribute	Frequency of Mention
Price	22.0%
Delivery	2.4%
Quality	12.2%
Incentive Effectiveness	24.4%
Continuous Exposure of Organization's Logo	31.7%
Other	7.3%

Limitations and Future Research

The small number of reporting organizations that actually use incentives is clearly a limitation of this exploratory study. Furthermore the method used to draw a random sample of organizations resulted in a large number of smaller organizations being surveyed. It is quite possible that the use of incentives varies by type and size of the organization. Future research should select potential respondents through some type of stratified sampling technique. It would also be important to more closely examine the means by which effectiveness is measured and the extent to which such measures are consistent with the organization's objectives for the program.

Conclusions

The present exploratory study has found that the use of incentives in fundraising by not-for-profit organizations is relatively uncommon. Those who do use this strategy, however, are reasonably satisfied and the use of the strategy is likely to grow if predictions of future plans are accurate. As fundraising becomes increasingly comptetitive, organizations need to investigate all means available to them to gain a competitive advantage. The use of incentives is one possible means of achieving that advantage.

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ORGANIZATIONAL CULTURE AND SALES MANAGEMENT

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Abstract

Building and maintaining a success-oriented sales culture may be an important goal of sales managers, and research in this direction appears to be promising. This article discusses on the literature of organizational culture and presents a conceptual framework for further research. Specifically, this article examines the impact of organizational culture (clan vs. market) on salesperson job behavior (motivation, commitment, turnover, and adaptive selling). Research propositions are generated based on the literarture review. Future research directions and implications are also addressed.

Introduction

Sales management cannot function outside the boundaries of organizational culture. It is therefore important that sales management scholars study the literature of organizational culture and develop a conceptual framework for further research. Although the issues related to the concept have been richly addressed in organizational psychology and management areas, the application of the concept to the marketing area, let alone sales management, is in the infant stage. Recently, organizational culture was included in the model of selling effectiveness developed by Weitz, Sujan, and Sujan (1986). Desphande and Webster, Jr. (1989) have proposed a conceptual framework integrating organizational culture in the marketing research area. However, while making a strong contribution to the marketing discipline, the articles did not address the specific linkage of organizational culture with key sales management variables.

The purpose of this article is to propose a conceptual framework of organizational culture and salesperson behavior. Specifically, this article examines the impact of organizational culture (clan vs. market) on: (1) motivation, (2) commitment, (3) turnover, and (4) adaptive selling. To serve the purpose, this article is divided into five sections. In the first section, we define organizational culture. In the second section, we define the clan culture and the market culture. We distinguish between these two as major marketing control mechanisms. The third section presents a conceptual framework involving the linkage between the two types of organizational culture (the clan and the market) on important salesforce job-related variables. We describe each variable in detail. Research propositions are generated based on the extensive literature review. We conclude with a discussion of further research and management implications with respect to organizational culture.

Organizational Culture

Organizational culture is defined as "the pattern of shared values and beliefs that help individuals understand organizational functioning and thus provide them norms for behavior in the organization" (Desphande and Webster 1989, p.5). Organizational culture is distinguished from climate in that the latter related to the extent to which the organization is currently fulfilling members' expectations ("what happens around here?"), while the former refers to the norms and values that underlie climate ("why do things happen the way they do?")(Schneider and Rentsch 1987). Organizational culture is useful in that it establishes a system of norms and informal rules which spells out how people are to behave most of the time, and thus it removes the need for personal supervision.

In terms of a theoretical approach to the concept, Desphande and Webster (1989), in a marketing research setting, have suggested five paradigms of organizational culture: (1) comparative, (2) contingency, (3) cognition, (4) symbolism, and (5) structural/psychodynamic. The first two can be distingushable from the last three on a basis of an instrumental-metaphorical classification. While the first two view culture as an independent variable, the remaining three see culture as a root metaphor for the organization itself, and are theoretically grounded in an anthropology rather than sociology. For these three paradigms, culture is not perceived as something a firm "has," but instead as what the firm "is."

The first two paradigms of organizational culture -- contingency and comparative -- seem most relevant for this article which examines the impact of organizational culture (as an independent variable) on salesforce behavioral outcomes. Contingency models suggest that corporate performance measures are significantly influenced by the shared values, beliefs, identities, and commitment of the members of the organization. The comparative management approach, on the other hand, views culture as exogenous to the firm (e.g., national culture), influencing

core beliefs and values within the organization. Both perspectives view organizational culture as a tool for managers to implement strategy and direct the course of their organizations more effectively. The comparative paradigm offers an interesting scholarly insight into the relative effectiveness of various marketing control mechanisms for different national and organizational cultures (Desphande and Webster 1989).

Clan Culture and Market Culture: Marketing Control Mechanisms

Park and Zaltman (1987) define marketing control as "a system of methods, procedures, and devices used by marketing managers to ensure compliance with marketing policies and strategies" (p. 599-600). Previously, marketing control discussions have been framed by traditional expectancy theory involving reward types and behavior monitoring (Walker, Churchill, and Ford 1977; Ingram and Bellenger 1983) and more recently, by commitment theory involving psychological identification with the company and salesforce outcome variances (Chonko 1986; Hunt, Chonko, and Wood 1985; Johnston et al. 1987; Lee 1989). These approaches have also been grounded in the individual level of analysis where shared values of employees as a group (group culture) and pertinent organizational culture control mechanisms are not tapped. The comparative marketing perspective of organizational culture suggests an important and timely alternative conceptual paradigm for implementing marketing control.

Clan control and market control (performance-oriented marketing control) are proposed as two major types of control mechanism in the literature of organizational culture (Desphande and Webster 1989; Kerr and Slocum 1987). While the term "clan" is used to describe a control system based on socialization and internalized values and norms, the term "market" represents a system of control in which behaviors are constrained by negotiated terms of exchange (Ouchi 1980). **Table 1** illustrates the major features of clan culture and market culture.

Clan culture features the control mechanism based on employees' longterm commitment to the organization exceeding any contractual agreements. The individuals, like a fraternal group, exchange their long-term commitment to the company for the organization's long-term commitment to the individual (security). A long and thorough socialization process reinforces a shared image of the organization's style and corporate values among employees. Traditional career paths, characterizing the up-through-the-ranks pattern, generate an extensive network of colleagues and many senior members

TABLE 1

CHARACTERISTICS OF CLAN AND MARKET CULTURE

	Clan Culture	Market Culture
1. Relationship of Employee and Organization	fraternal long-term traditional	contractual short-term utilitarian
2. Relationship Among Peers	interdependence high conformity collectivity	independence little conformity individuality
3. Acculturation Process	high socialization rich normative mentoring superior	little socialization lean normative negotiating superior
4. Reward Base	salary-based group bonus industry norms	commission-based individual bonus measurability

serving as mentors and role models for younger members. The culture, however, nurtures the normative pressure to conform and, as a consequence, risk taking or innovative behavior (e.g., entrepreneurial activities) is constrained. Japanese firms espouse this culture and some well-known American firms have adopted this control mechanism (Ouchi 1980).

Market culture, as is featured in **Table 1**, represents the typical corporate culture of American business. Contractual relationships specify the obligations of each party in advance. Performance is exchanged for rewards as specified in a negotiated schedule. Neither party promises long-term commitment. The organization does not promise security, whereas the individual promises loyalty. For each party, contract renewal serves as a means of furthering its goals. In the absence of normative pressure to conform, members do not share a common set of values. With limited role models and mentoring capacity, superiors' interaction with subordinates mainly centers around performance-reward agreements and the evaluation of performance and resource allocation requests. Market culture does not as a rule stimulate loyalty and conformity to corporate values; it, on the other hand, typically reinforces autonomy and an entrepreneurial spirit among employees.

A Framework of the Clan vs. the Market Culture and Their Differential Impact on Salespeople's Job Outcomes

Culture control has gradually been replacing rule-based control as many American corporations experiencing productivity declines search for new ways of

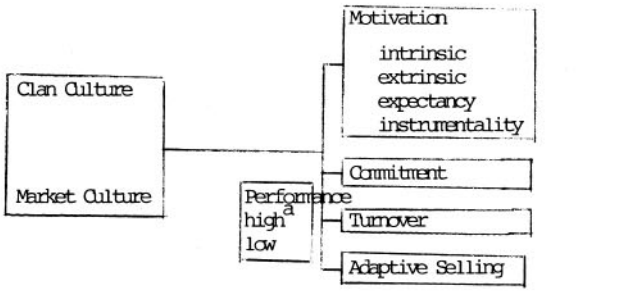
managing employees (Lebas and Weigenstein 1986). Under such circumstances, an important avenue for research to examine is the impact of organizational culture (e.g., clan and market) on salespeople's motivating forces. Both motivation based on expectancy theory (Walker, Churchill, and Ford 1977; Churchill et al. 1985) and commitment (e.g., organizational)(Chonko 1986; Michaels et al. 1988) have attracted the attention of many researchers in the sales management area. Although these two constructs may simultaneously affect the salesperson's behavior, expectancy-based motivation and commitment are unique constructs which are clearly distinguishable from each other. While motivation is based on the calculative-instrumental processes, commitment taps on-going psychological predispositions which are largely independent of immediate instrumental concerns (Scholl 1981; Wiener and Vardi 1980). Wiener (1982) further clarifies this point by positing that motivation involves a utilitarian aspect of behavior while commitment is related to the normative aspects. Motivation is an important antecedent of salesperson performance (Churchill et al. 1985). Commitment, on the other hand, has been found to be a major predictor of salesperson turnover (Johnston et al. 1987). Considering the importance of these two constructs as predictors of important salesperson outcomes, the inquiry into the effect of organizational culture on these constructs appear to be a worthwhile pursuit.

Salesperson turnover (Johnston et al. 1987; Lucas et al. 1987) and adaptive selling behavior (Weitz et al. 1986) are two major job aspects in the selling context. These two constructs are of significant interest to sales managers. Research evidence relating these two constructs to organizational culture does not indeed exist. It therefore appears timely to delve into the literature to lay the theoretical ground for future empirical research.

Figure 1 shows a conceptual framework illustrating that salespeople's important aspects of job outcome are affected by the type of organizational culture: clan type or market type. The framework indicates that organizational culture influences: (1) motivation, (2) commitment, (3) turnover, and (4) adaptive selling orientation. Also shown in the framework is that the relationship between culture and turnover as mediated by performance level (high vs. low). This framework is based on the extensive literature reveiw from organizational psychology, management, and marketing and serves as a basis for the generation of research propositions for further empirical pursuit.

FIGURE 1

A FRAMEWORK OF ORGANIZATIONAL CULTURE AND SALESPERSON JOB OUTCOMES



[a]high-low performance mediates the linkage between organizational culture and turnover

Culture and Motivation

In the selling context, the expectancy model of motivation has been most widely accepted as the operationalization for the motivation construct (Ingram and Bellenger 1983; Kohli 1985; Oliver 1974; Tyagi 1982, 1985). Based on an expectancy model, motivation is viewed, in part, as "the amount of effort the person desires to expend on a particular task associated with his or her job" (Walker et al. 1979, p. 26). This motivation is determined by three sets of perceptions: (1) expectancy, (2) instrumentalities, and (3) valence for rewards. Expectancy represents the salesperson's subjective perception concerning the contingency of effort and performance and rewards. Valence for rewards is simply the salesperson's feelings towards the desirability of those rewards. In several marketing studies, as well as those in organizational psychology, a further delineation of the components of the expectancy model has involved the distinction between intrinsic and extrinsic outcomes (Deci 1971, 1975; Kohli 1985; Mitchell 1974; Staw 1974, 1977; Tyagi 1982, 1985). Specifically, the valence and instrumentalities components of motivation can be divided on the basis of an intrinsic/extrinsic rewards dichotomy. Intrinsic rewards include feelings of accomplishments, self-competence, and personal growth, while extrinsic rewards include financial incentives, promotions, security, and compensation packages.

A clan work environment is believed to foster an intrinsic reward orientation since the focus is more on the work itself rather than on efforts to achieve extrinsic rewards associated with the work

(Weitz et al. 1986). Under the clan culture, employees believe in the long-term equity of the reward system which is not based on short-term outcomes beyond their control. On the contrary, the market culture environment fosters an extrinsic reward orientation since evaluations based on short-term outcomes and explicit contract terms breed utilitarian motivational orientation.

Organizational culture can also affect the individual components of motivation (e.g., expectancy, instrumentalities). Under the clan culture, for example, superiors evaluate subordinates' performance qualitatively as well as quantitatively. The subjective nature of evaluation for qualitative performance criteria (e.g., conformity, cooperation, etc.) leaves much of subordinates' performance evaluation to the interpretation of superiors. Superiors are free to define subordinates' roles that are considered important. The sense of dependency and the sense of vulnerability of younger employees on superiors stimulates extensive socialization with superiors as well as co-workers. An extensive social network within the firm is important for the exchange of information regarding expectations from superiors and for maintaining corporate values. Also, employees have little information regarding how bonus is determined and how much they will receive since bonus is based on corporate performance, regardless of individual achievement (Kerr and Slocum 1987).

Under the market culture, however, performance is more objectively defined and measured quantitatively. Employees' work outcomes serve as inputs for evaluation and the numbers are paramount. Major proportions of rewards are directly related to quantitatively defined performance criteria. Subjective judgements of superiors are largely restricted, since employee results could be examined by financial outcome. Formal performance appraisal is common and feedback is clearer, thus fostering higher expectancy and instrumentalities under the market culture. Socialization is not an important function of the system, since the reward system is not geared toward mentoring relationships nor toward the transference of subtle corporate norms and values. These discussions lead to the following propositions:

P1a: Salespeople in the clan culture show higher intrinsic motivation than those in the market culture.

P1b: Salespeople in the market culture show higher extrinsic motivation than those in the clan culture.

P1c: In the clan culture, salespeople have lower expectancy and instrumentality estimates than do salespeople in the market culture.

Culture and Commitment

Committed employees are believed to dedicate more of their time, energy, and talents to the organization when compared to those who are uncommitted (Hunt, Chonko, and Wood 1985). The commitment construct has been richly documented in both the areas of organizational psychology and marketing. Commitment is viewed as an employee attitude characterized by the psychological bond to an organization and by values of loyalty and duty. More specifically, one major study defined commitment as, "a strong desire to remain a member of the particular organization, a willingness to exert high levels of effort on behalf of the organization, a strong belief in and acceptance of the organization's goals and values" (Porter et al. 1974, p. 604).

In the clan culture, every individual is subject to a control system based on socialization and internalized values and norms which nurture employee identification with the organization. The socialization process stimulates a sense of pride in membership (Kerr and Slocum 1987). Employee loyalty to the firm is exchanged for long-term job security. In the market culture, a contractual relationship breeds a short-term utilitarian orientation of employees. Members do not feel constrained by norms and shared goals. The individual in the market culture can pursue goals with a minimum of organizational constraints. Wilkins and Ouchi (1983) suggest that clan members pursue shared goals with a belief in long-run equity. Clan members can tolerate short-term inequities believing that equity will be achieved in the long runand that specific short-term equity is difficult to measure. Under these circumstances, employees' loyalty to the firm becomes critically important, and as Smircich (1983) notes, artifacts of culture (e.g., clan) can be used to facilitate socialization and to build organizational commitment. Thus,

P 2: Salespeople in the clan culture tend to show higher commitment to the firm than do salespeople in the market culture.

Culture and Turnover

Salesperson turnover has consistently been an important issue in sales management, given the enormous cost associated with replacement and training. Although there exists a distinction between two types of turnover, functional and dysfunctional (Dalton, Todor, and Krackhardt 1982), under any circumstances, a high turnover rate does not represent a long-term goal of most firms. In a few studies, organizational commitment has been found to be a strong predictor of

salesperson turnover (Johnston et al. 1987; Lucas et al. 1987). In other studies, negative correlations between job satisfaction and turnover have repeatedly been reported (Bluedorn 1980; Mobley 1977; Porter and Steers 1973; Futrell and Parasuraman 1984). Few studies, however, have reported the linkage between organizational culture and turnover. Among the possible explanations to the dearth of empirical studies is the complexity associated with the operationalization of organizational culture.

However, the operationalization of organizational culture using the conceptual paradigm of the clan culture and the market culture enables us to establish the conceptual linkage between culture and turnover. Salespeople in the clan culture environment are more committed to the organization since shared goals and organizational norms guide their behavior and rewards are mostly derived from collective efforts instead of individual initiatives. Mutual long-term commitment and employees' pride in membership can be conducive to their enhanced identification with the organization and high level of dependence on the organization (Kerr and Slocum 1987). Consequently, leaving the organization may involve painful self-denial and peer resistance. A good example can be found in a case of Japanese employees (apparently operating in the clan culture environment) who resisted the temptation to move from one firm to another due to the fact that leaving the company was regarded as the equivalent to leaving one's family (Chesanow 1985).

The clan culture thus can hold the turnover rate down overall. However, there seems to be no denying the fact that low performers in the clan culture are unfairly subsidized at the expense of high performers by retaining the former and by not providing the immediate feedback and recognition they deserve for the latter. One previous finding showed that visual forms of recognition increase the chances of retaining high performers whereas job satisfaction does little to reduce turnover among them (Futrell and Parasuraman 1984). Therefore, it can be suggested that high performers may be more tempted to leave the company with the clan cultural environment than low performers.

With the market culture characterizing the contractual relationship between individual and organization, on the contrary, the organization does not promise long-term job security to the individual. Outcome-based evaluation standards and the reward system (which is contingent upon short-term results) increase the likelihood of high turnover possibilities among low-performing salespeople. In the market culture, low performers become vulnerable to negative feedback and the threat of negative sanctions (e.g., termination), while high performers are richly rewarded and their visibility is enhanced. As a consequence, in the market culture, low performers are pressured to leave the company and therefore demonstrate a higher turnover rate than do high performers. Based on the discussion, it is expected that:

P 3a: Turnover will be significantly higher for high performers than for low performers in the clan culture.

P 3b: Turnover will be significantly higher for low performers than high performers in the market culture.

Culture and Adaptive Selling

The concept of adaptive selling has drawn increasing research attention and is defined as "the altering of sales behaviors during a customer interaction or across customer interactions based on perceived information about the nature of the selling situation" (Weitz et al. 1986, p.175). While non-adaptive selling delivers the same "canned" presentation (Johnston 1975), extremely adaptive selling behavior involves unique sales presentations for each customer and the alteration of behavior during interactions.

Motivation to practice adaptive selling is affected by intrinsic reward orientation and a tendency to make strategy attributions to explain poor performance, while actual adaptive selling requires capabilities in addition to these two factors (Weitz et al. 1986). Intrinsically motivated salespeople tend to attribute their poor performance to the lack of strategy rather than effort (Sujan 1986) and, therefore, intrinsic motivation coupled with proper skill will enhance the effectiveness of adaptive selling behavior. Because the clan-type organizational culture fosters intrinsic reward orientation in salespeople, it results in effective adaptive selling (Weitz et al. 1986). Thus, intrinsically-motivated salespeople will focus more attention on the selling task itself than on efforts to achieve extrinsic rewards associated with work. Weitz et al. (1986) posit that salespeople's motivation to practice adaptive selling is determined by the degree to which salespeople are oriented toward intrinsic rewards. They further suggest that the use of incentive compensation (a market culture characteristic) reduces an intrinsic reward orientation. Given the fact that intrinsic reward orientation is fostered by the clan-type organiza-

TABLE 2

THE EFFECTS OF ORGANIZATIONAL CULTURE ON THE SALESPERSON JOB OUTCOMES

Org. Culture Types	Motivation[a]		Commitment[b]	Turnover	Adaptive Selling
	Types	Components			
Clan Culture	high intrinsic, low extrinsic	low expectancy low instrument-ality	high	high for achiever low for low performer	high
Market Culture	high extrinsic, low intrinsic	high expectancy high instrument-ality	low	high for low performer low for achiever	low

[a] operationalization is based on the expectancy theory of motivation

[b] represents organizational commitment

[c] accounts for mediating effect of performance

[d] represents "motivation," not actual behavior

tion culture, we can expect:

P 4: The motivation to practice adaptive selling will be significantly higher for salespeople in the clan culture than for those in the market culture.

Table 2 summarizes the effects of organizational culture on the following key sales job outcome variables: motivation, commitment, turnover (mediated by performance), and adaptive selling.

Discussion and Conclusion

The proposed framework suggests a direction for research on the influence of organizational culture on major aspects of salesperson motivation and behavior. Although the list of variables included in the framework are by no means exhaustive, it involves major variables which have received recent research attention in the selling context. The factors which are posited to be influenced by organizational culture include: (1) motivation (Cron and Slocum 1986), (2) commitment (Chonko 1986; Ingram et al. 1989), (3) turnover (Lucas et al. 1987), and (4) adaptive selling (Weitz et al. 1986).

Any given organization can comprise multiple cultures since organizational culture is a group-based phenomenon. It is very likely that a large firm has multiple strategic divisions and units with varying cultural orientations. Although a functional group within a company (e.g., sales district office) is by no means completely independent of the uniqu organizational culture of the firm, each functional unit may galvanize its own culture. For example, a new regional sales manager or a new district manager with distinctive personal beliefs about managing people may create a unique culture for his/her work unit. This can be especially true when a firm allows a high degree of autonomy among divisions in terms of supervision. It is believed that the clan-type culture is very difficult to institutionalize and maintain in a large firm due to the complexity associated with the hierarchical structure and the number of individuals involved; it may thus be more appropriate in small units within the company (e.g., SBU) or within a sales division (e.g., a district sales office) (Wilkins and Ouchi 1983).

Desphande and Webster (1989) point out that the cross-sectional survey method is the most feasible data collection method when organizational culture is seen as an independent variable. One potential solution to the absence of measurement instrument can be the development of measurement items with good psychometric properties which tap the characteristics of the clan culture and the market culture.

References are available upon request

A COMPARISON OF COUPON USAGE BEHAVIOR BETWEEN AFRO-, CAUCASIAN- AND CHINESE-AMERICANS

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Abstract

This study was undertaken to compare coupon usage behavior between Afro-Americans, Caucasian-Americans and Chinese-Americans. The following areas were analyzed: types of coupons used, frequency of use, source of coupons and desired monetary face values. The results imply that Afro-Americans, Caucasian-Americans and Chinese-Americans use coupons and have similar coupon usage behavior.

Introduction

The most popular form of consumer promotion in the United States has been couponing. In 1989, marketers distributed 273.4 billion coupons to U.S. households, an increase of 257.4 billion from 1968 (Adweek's Marketing Week 1990). In 1989, shoppers saved an estimated $3.5 billion by using coupons. Twenty-seven percent of all promotion advertisements involve couponing (Yucelt & Kaynak 1989).

Coupons are popular among manufacturers for several reasons. Coupons inform and entice consumers to respond to price discounts upon redemption. Secondly, coupons do not change a consumer's perception of the product's shelf price (Ward & Davis 1978). Marketers have a limited number of resources, so it is vital for them to correctly segment their market. Upon properly segmenting their consumer markets, marketers need to persuade consumers to purchase their product over a competitor's. Manufacturers therefore rely on sales promotion techniques for this purpose. Additionally, couponing can be used as a merchandising tool: 1) introducing a new or improved product; 2) introducing a product into a new market; 3) obtaining broader distribution of a product by using a coupon program as an inducement for more stores to carry the product; 4) reducing excessive inventories of a product; and 5) to provide a salesman with an additional sales tool (Blattberg & Neslin 1990).

Studies show that coupons and other sales promotions result in greater sales response than price discounts (McGann 1974; Cotton & Babb 1978). Manufacturers realize how important this sales promotion technique can be and are spending millions of dollars on coupons to promote their products. From 1988-89 couponing increased by approximately 15% for the following reasons: 1) distribution of more promotional advertisements; 2) increase of free-standing inserts and direct mail advertisement; and 3) running multiple coupons in one advertisement (Adweek's Promote 1989). Distribution of coupons is mainly through Sunday papers (41.5%), daily papers (30.6%), magazines (10.0%), and by direct mail (9.9%) (Progressive Grocer 1985).

Most research conducted has examined coupon usage in the general population (e.g., Bawa & Shoemaker 1987; Yucelt & Kaynak 1989). Little research has been conducted on coupon usage of various subcultures in the U.S. This study examined the coupon usage behavior between Afro-, Caucasian-, and Chinese-Americans. The Asian market is of interest in this paper because other than the two largest groups in the U.S., it is a sizeable and fast growing market. However, this market is not monolithic as there are many nationalities with different cultural backgrounds within this group. This study, then, investigated coupon usage for one segment of the Asian population—Chinese-Americans.

Background

Subculture studies have been in vogue in marketing literature. Earlier studies focused on the Afro-American market and explored differences in consumption and buying behavior between black and white consumers. Although black buyer behavior has been investigated extensively, no literature is found on black couponing behavior. The only data on black coupon usage is reported by *Coupon Facts* (1988). The percentage of black coupon users is much lower than that of white users, 57% vs. 72%. This difference may be attributed to demographic differences between the groups. The demographic profile of coupon users reported by A.C. Nielsen (1980) suggests that coupon users are more likely to be middle-aged, better educated, have larger households, higher income, and live in an urban area. Afro-Americans fit some of this profile: larger household and urbanite. On the other hand, very little is known about Chinese-American consumers. According to the Census of Population, this ethnic group is growing very fast, is highly educated, and has a higher income than the general population.

Methodology

Data from Afro- and Caucasian-Americans was obtained through the use of a survey. Three hundred questionnaires were given to 60 students at Indiana University at South Bend. The students were responsible for distributing five questionnaires to their co-workers, relatives, friends or even strangers. Only 125 of the 223 returned questionnaires were properly completed and used for data analysis. The data for Chinese-Americans was obtained from an earlier study using the same questionnaire. Survey data was obtained through questionnaires mailed to 300 Chinese households in Charlotte, North Carolina and Memphis, Tennessee. Ninety-six surveys were returned. Due to missing data only 89 surveys were complete enough to be included in the survey (Snuggs, Lee & Yoon

1989). Respondents of these three groups were asked to fill out a questionnaire that contained 52 questions on shopping and coupon usage behavior. The instructions required the person in the household who was largely responsible for shopping to fill out the questionnaire.

Results

Demographic Characteristics

Demographic characteristics of Afro-American respondents show that a sizable number of them are between 25 and 44 (55%), female (58%), have less than a college education (85%), are married (47%), have children (100%), and earn less than $25,000 (53%). Twenty-eight percent were homemakers and an additional 28% were skilled laborers (Table 1).

The demographic characteristics of Caucasian-Americans surveyed indicated that a large portion were between the ages of 25 and 44 (51%), were female (75%), had less than a college education (67%), are married (72%), have children (100%), and earn from $25,000-$49,999 (42%). Twenty-three percent of Caucasian respondents stated they were a manager or proprietor; additionally twenty-two percent were professionals (Table 1).

Chinese-Americans surveyed reported the following demographic characteristics: they were between the ages of 25 and 44 (61%), the majority were female (67%), had a college degree (72%) and 38% of the aforementioned had graduate degrees and some postgraduate work. Eighty-five percent of Chinese-American respondents indicated they were married, had children (71%), and earned $50,000 or more (49%). Occupation of respondents as reported in the survey were professionals and homemakers, (39% & 22% respectively). A large number of Chinese-Americans were born outside the U.S. (84%) (Table 1).

Shopping Behavior

The shopping behavior of Afro-Americans, Caucasian-Americans and Chinese-Americans was analyzed in the following areas: coupon usage, savings per year from coupons, years collecting, frequency of collecting, help in collecting and type of coupons used. Afro-Americans tended to use coupons on a regular basis (82%), saved between $151 to $300 per year from using coupons (43%), have been collecting 1 to 5 years (60%), collect once a week (64%), did not receive help from family members (73%) and used manufacturer (75%) and retail coupons (25%) (Table 2).

Chinese-Americans indicated that the majority of them use coupons on a regular basis (79%), save between $61 to $150 per year (33%), have been collecting and using coupons for 1 to 5 years (49%), once a week collect coupons (64%), received help collecting from family members (53%) and manufacturer's coupons are the most popular (88%) (Table 2).

The questionnaire included a segment on the type of products purchased most and least often with coupons. Food products were the items most often purchased with coupons by Afro-Americans (Table 3). This was followed by household cleaning products, personal hygiene products and hair care products. Auto products had a mean value of 2.6, closely followed by cosmetic and

TABLE 1
DEMOGRAPHIC CHARACTERISTICS OF AFRO-, CAUCASIAN-, AND CHINESE-AMERICAN CONSUMERS

Variable	Number			Percent*		
Age	A	C	Ch	A	C	Ch
18-24	5	26	2	25.	25.2	2.3
25-44	11	53	53	55.	51.5	60.9
45-64	4	23	27	20.	22.3	31.0
65	0	1	5	0.	.97	5.7
Sex						
Male	8	26	29	42.1	25.2	33.
Female	11	77	59	57.9	74.8	67.
Education						
College Ed.	17	69	24	85.	70.	28.2
College grad +	3	31	29	15.	30.1	34.1
Grad. degree+	0	3	32	0.	2.9	37.6
Occupation of Respondent						
Homemaker	5	18	19	27.8	18.	22.3
Sales/clerical/technical	2	10	11	11.1	10.	12.9
Professional	2	22	33	11.1	22.	38.8
Manager, Propr.	0	23	11	0.	23.	12.9
Skilled labor, craftsman	5	17	11	27.8	17.	12.9
Student/retired	4	10	11	22.2	10.	12.9
Marital State						
Single	6	22	9	31.6	21.4	10.3
Married	9	74	74	47.4	71.8	85.
Widowed	1	0	4	5.3	0.	4.6
Divorced	3	7	0	15.8	6.8	0.
Number in Household						
1	2	14	5	10.	13.6	5.8
2	4	25	12	20.	24.3	13.9
3	5	27	16	25.	26.2	18.6
4	4	28	37	20.	27.2	43.
5 or more	5	21	16	25.	20.4	18.6
Household Income						
- $25,000	10	27	19	52.6	27.3	22.3
$25,000-49,999	6	42	24	31.6	42.4	28.2
$50,000 +	3	30	42	15.8	30.3	49.4
Number of Children						
None	0	0	23	0.	0.	29.1
1	3	22	12	25.	41.5	15.2
2	4	23	36	33.3	43.4	45.6
3 or more	5	8	8	41.7	15.1	10.1
Children less than 6 years						
None	0	0	6	0.0	0.	18.8
1	2	21	16	50.	77.8	50.
2	1	5	7	25.	18.5	21.9
3	1	1	3	25.	3.7	9.4
Children 7 to 13 years						
None	0	0	6	0.0	0.	22.2
1	4	13	13	57.1	65.	48.1
2	3	7	8	42.9	35.	29.6
Children 14 to 19 years						
None	0	0	5	0.	0.	17.9
1	4	11	13	66.7	61.1	46.4
2	2	6	8	33.3	33.3	28.6
3	0	1	2	0.	5.6	7.1
Born in the United States						
Yes	20	99	14	100.	97.1	16.3
No	0	3	72	0.	2.9	83.7

A=Afro-American C=Caucasian Ch=Chinese
* Percentage may not sum to 100% due to rounding

clothing items, which were tied at a mean of 2.67. Other products were the least often purchased with coupons (Table 3).

TABLE 2
SHOPPING BEHAVIOR OF AFRO-, CAUCASIAN- AND CHINESE-AMERICAN CONSUMERS

	Number			Percent*		
	A	C	Ch	A	C	Ch
Use coupons on regular basis						
Yes	9	77	70	81.8	95.1	78.7
No	2	4	19	18.2	4.9	21.3
Savings per year from coupon use (actual dollars)						
5-60	1	1	14	14.3	1.7	28.4
61-150	2	11	22	28.6	19.	32.8
151-300	3	26	16	42.9	44.8	23.9
301-960	1	20	10	14.3	34.5	14.9
Years collecting and using coupons on a regular basis (years)						
1-5	6	51	33	60.	63.	48.5
6-10	1	16	27	10.	19.8	39.7
11-15	0	6	8	0.	7.4	11.8
16+	3	8	0	30.	9.9	0.
Frequency of collecting coupons from newspapers, magazines						
Once a week	7	48	45	63.6	58.5	64.3
Twice a week	3	8	6	27.3	9.8	8.6
Once a month	0	2	5	0.	2.4	7.1
When have time	1	22	13	9.1	26.8	18.6
Other	0	2	1	0.	2.4	1.4
Received help from family members to collect & organize coupons						
Yes	3	36	37	27.3	44.4	52.9
No	8	45	33	72.7	55.6	47.1
Family members who helped collect coupons						
Wife	0	3	9	0.	8.6	25.
Husband	0	8	12	0.	22.9	33.3
Children	1	14	9	33.3	40.	25.
All members	2	4	4	66.7	11.4	11.1
Others	0	6	2	0.	17.1	5.6
Types of coupons used						
Manufacturer's	9	71	61	75.	88.	88.4
Retail	3	10	4	25.	12.4	5.8
Both	0	0	4	0.	0.	5.8

* Percents may not sum to 100% due to rounding

TABLE 3
FREQUENCY OF PRODUCT PURCHASED WITH COUPONS

Type of Product	Mean Value		
	A	C	Ch
Food products	1.08	1.05	1.2
Household cleaning	1.8	1.75	1.6
Personal hygiene	2.1	1.9	2.0
Hair care products	2.14	2.25	2.6
Cosmetics	2.67	2.36	2.8
Other products	3.0	1.44	3.0
Auto products	2.6	2.78	3.1
Clothing items	2.67	2.81	3.6

1=most often, 2=often, and 3=least often

Food items were the products most often purchased with coupons by Caucasian-Americans and was followed by household cleaning products, personal hygiene products, hair care products and cosmetics with auto and clothing items the least often purchased with coupons (Table 3).

Chinese-Americans purchased food items most often with coupons. This was followed by household cleaning products, personal hygiene products, hair care products and cosmetics. The products least often purchased with coupons were other products, auto and clothing products.

Media Sources

The survey analyzed various media sources that Afro-Americans, Caucasian-Americans and Chinese-Americans used to obtain their coupons. The method used to distribute coupons is directly related to coupon redemption rates (Neilson, 1965).

Afro-Americans ranked newspaper inserts/supplements as the number one media source for coupons. In-store coupons were ranked second for coupon distribution. Sixty-three percent of Afro-American respondents reported using coupons from product packages, followed by magazines. Direct mail was ranked fifth (54.6%). The media sources that were least used were friends and other (Table 4). Approximately half of those who responded used one to three different sources for their coupons.

The top ranked media source for coupons used by Caucasian-Americans is the newspaper. Second is direct mail, followed by coupons on product packages. Fifty-eight percent of respondents reported in-store as a distribution source for their coupons. Magazines followed by friends and others were the least used source for coupons (Table 4). Chinese-Americans surveyed on media sources for coupons reported newspapers as their number one choice. Second was direct mail followed by coupons on product packages. Coupons in magazines were ranked fourth, followed by in-store. The least used sources for coupons were friends and other (Table 4).

TABLE 4
COUPON MEDIA SOURCES USED BY AFRO-, CAUCASIAN- & CHINESE-AMERICAN CONSUMERS RANKED BY DISTRIBUTION

	Number			Percent		
	A	C	Ch	A	C	Ch
n=	11	76	70			
Newspaper inserts/ supplements/ROP	11	76	70	100.0	100.0	100
Magazines	6	33	32	54.6	43.4	46
Direct Mail	5	54	40	45.5	71.1	57
Friends	2	14	6	18.2	18.4	9
In-store coupon display/exchange	8	44	20	72.7	57.9	29
Product package	7	52	33	63.6	68.4	47
*Other	0	1	1	0.0	1.0	1

* Multiple responses were accepted for the survey question

Afro-, Caucasian- and Chinese-Americans used at least three media sources to obtain their coupons. The media sources used by Afro-Americans are similar to the media distribution sources used by marketers (Table 5).

Attitudes Toward Coupon Sources

The following section measured consumer's attitudes toward various coupon sources using a four point scale. One indicates the most preferred, 2 indicates preferred, 3 indicates less preferred and 4 indicates the least preferred.

TABLE 5
COMPARISON BY RANK OF MEDIA SOURCES USED BY AFRO-, CAUCASIAN- & CHINESE-AMERICAN CONSUMERS FOR COUPONS DISTRIBUTED BY MARKETERS

Coupon Sources	A	C	Ch	Marketers
Newspaper inserts/supplements	1	1	1	1
Newspaper ROP	*	*	*	2
Package	3	3	3	3
Direct Mail	5	2	2	4
Magazines	4	5	4	5
Other+				
In-store coupon display/exchange	2	4	5	
Friends	6	6	6	
Other	7	7	7	

*This was not listed on the survey as an option
+Only the category *other* was listed in Marketing & Media, 1988, p. 152.

Instant redeemable coupons were most preferred by Afro-Americans. Instant coupons are those that appear on packages or a price reduction that is given at the cash register. The second preference were regular cents-off coupons from magazines, newspaper (inserts/supplements), etc. Less preferred were buy one or more items to get a reduction in price. The least preferred source for coupons was mail-in proof of purchase or sales receipts in order to obtain coupons (Table 6).

Regular cents-off coupons were most preferred by Caucasian-Americans. Preferred were instant coupons and less preferred by Caucasian-Americans were buy one or more items to obtain a price reduction. The least preferred coupons were the send-in (Table 6).

Chinese-Americans reported that the most preferred coupons were instant coupons. Regular cents-off coupons were preferred by the respondents and less preferred coupons were buy one or more items to receive a price reduction. The least preferred coupon was the send-in (Table 6).

TABLE 6
RANK OF COUPON SOURCES PREFERRED BY AFRO-CAUCASIAN & CHINESE-AMERICAN CONSUMERS BY MEAN VALUE

Instant coupon	A*	Rank	C*	Rank	Ch*	Rank
Rank (on package or price reduction at checkout)	1.36	1	1.6	2	1.4	1
Regular cents off coupon (newspaper/magazines, etc.)	2.09	2	1.5	1	1.5	2
Buy 1 or more items to get price reduction	2.6	3	2.96	3	3.1	3
Send in proof of purchase or sales receipt to get cents off coupon	3.6	4	3.7	4	3.5	4

*These value are mean values. Rank: 1=most preferred, 2=preferred, 3=less preferred, 4=least preferred

The Face Value of a Coupon

The following segment of the questionnaire determined the relationship between the face value of a coupon and the redemption rate. Face value of the coupon and the rate of discount influence coupon redemption rates (Nielsen, 1965). The following results confirm this. Afro-American respondents reported that they would use a coupon of 10 cents or less to purchase a familiar or regularly purchased brand (64%). However, they would not use a coupon of 10 cents or less to purchase a unfamiliar brand (70%) (Table 7).

TABLE 7
CONSUMER WOULD USE COUPON OF TEN CENTS OR LESS FOR PRODUCT PURCHASE

	Number			Percent		
	A	C	Ch	A	C	Ch
Familiar or regularly purchased product brand						
	n=11	81	67			
Yes	7	69	49	63.6	85.2	73.1
No	4	12	18	36.4	14.8	26.9
Brand not normally purchased						
	n=10	78	61			
Yes	3	10	7	30	12.8	11.5
No	7	68	54	70	87.2	88.5

Caucasian-Americans surveyed indicated that they would use a coupon of 10 cents or less to purchase a familiar or regularly purchased brand (85.2%). When asked if they would purchase a brand not normally used with a coupon of 10 cents or less they responded that they would not (87.2%) (Table 7). When Chinese-Americans were surveyed they indicated that they would use a coupon of 10 cents or less to purchase a brand that was familiar or regularly purchased (73%). When asked if they would use a coupon of 10 cents or less to purchase a unfamiliar brand they responded they would not (88.5%) (Table 7).

Coupon values necessary to entice Afro-American consumers to purchase products not previously purchased was a coupon value worth 15% for the products price (67%) (Table 8).

Sixty-two percent of Caucasian-American consumers indicated that a coupon value of 15% of the product price would be necessary to encourage them to purchase an unfamiliar brand (Table 8).

Coupon values necessary to entice Chinese-American consumers to purchase a brand not normally purchased was a value of at least 15% of the product price (70%) (Table 8).

TABLE 8
COUPON VALUES NECESSARY TO ENTICE AFRO-, CAUCASIAN- & CHINESE-AMERICANS TO PURCHASE A PRODUCT NOT PURCHASED PREVIOUSLY

	Number			Percent*		
	n=6	45	35			
Coupon value worth:	A	C	Ch	A	C	Ch
5% of product price	0	2	2	0.	4.4	2.9
10% of product price	0	7	2	0.	15.6	11.4
15% of product price	4	28	20	66.7	62.2	28.6
Would not consider using a coupon for a product not normally purchased	2	8	11	33.3	17.8	15.7

Discussion

Afro-, Caucasian- and Chinese-American consumers who use coupons display similar demographic characteristics. Across the three cultures married females between the ages of 25 to 44 had the major responsibility for shopping. All three cultures tended to have two or more children. Chinese-Americans tended to be better educated compared to Afro-Americans and Caucasian-Americans while Caucasian-Americans and Chinese-Americans tended to have higher incomes.

Shopping behavior among the three cultures was quite similar with few exceptions. All three cultures used coupons on a regular basis, collected coupons once a week, and tended to use manufacturer's coupons. Products most often purchased by Afro-, Caucasian- and Chinese-Americans were food products. The least often product purchased with coupons similar among the respondents was clothing. Products used for household cleaning, personal hygiene, hair care and cosmetics varied in frequency of purchase with coupons among the respondents.

Newspapers as a source for coupons was ranked number one for all respondents. The least used source for coupons by all respondents were friends and other. Afro-Americans preferred in-store and instant redeemable coupons. Caucasian- and Chinese-American consumers tended to prefer direct mail and product packages as a source for their coupons.

Ranking on the type of coupon used by all three groups of respondents were very similar. Afro-American and Chinese-American consumers ranked instant coupons as their number one choice followed by regular cents off coupons. The least preferred type of coupon by Afro-, Caucasian- and Chinese-American consumers were buy one to receive a price reduction and send in proof of purchase coupons. Caucasian-Americans preferred regular-cents off over instant coupons.

All respondents indicated that they would use a coupon of ten cents or less to purchase a familiar or regularly purchased product. All reported that they would not use a coupon of ten cents or less to purchase a brand not normally used. Based upon these results, marketers should offer coupon values over ten cents to entice customers to purchase an unfamiliar brand or a brand not normally purchased.

The face value of coupons necessary to entice consumers to purchase products not normally purchased were similar for all three respondent groups. All groups indicated that the coupon would have to be at least 15% of the product price. The aforementioned demonstrates that in order for marketers to encourage consumers to purchase products not purchased previously, the value of the coupon must be at least 15% of the product price.

Conclusions

This study was initially undertaken to determine if there was a difference in attitude toward coupons between Afro-, Caucasian- and Chinese-American consumers. Looking at the various cultures and determining their differences in coupon usage can provide useful information to marketers when making various tactical business decisions. The results of this study indicated that Afro-, Caucasian- and Chinese-Americans have very similar couponing behavior.

Marketers need to thoroughly analyze various cultures and their attitudes toward coupons. Further research needs to be undertaken in this area.

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ANTECEDENTS OF ETHICAL DECISION MAKING IN SALES ORGANIZATIONS

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Abstract

This paper develops propositions about ethical decision making in sales organizations. Because salespeople are involved in relationships both within and outside of the organization it is necessary to consider the internal and external conditions that affect decision making. Drawing on the literature examining ethics in a marketing context, we delineate the circumstances under which ethical behavior is likely to occur. The relational context, environmental variables and the structure of selling relationships are proposed as antecedents of ethical decision making in sales organizations.

Introduction

Interorganizational relations have become of great interest to a variety of scholars (Whetten 1987). Researchers from the fields of public administration, economics, sociology and marketing have long recognized the importance of an organization's ability to manage both internal and external activities (Katz and Kahn 1967). Although these four research traditions are all concerned with interorganizational relations, each focuses on different issues. The common theme is a concern for internal and external factors that will affect organizational members' decisions.

The present paper addresses decision making in the context of sales organizations. More specifically, we focus on ethical decision making and delineate the conditions under which ethical behavior is likely to occur. By addressing both the internal and external conditions that surround selling situations, we propose antecedents of ethical decision making and discuss how these factors will affect a salesperson's behaviors.

Ethical Decision Making in Marketing

Business and marketing ethics have become both an academic and pragmatic concern, as evidenced by the growing number of articles written on the subject (Tsalikis and Fritzsche 1989). Although many early writings on marketing ethics delineated what "ought to be done" in certain ethical dilemmas, recent research efforts have shifted from a focus on normative considerations to the development of positive models of ethical decision making (Skinner, Ferrell and Dubinsky 1988). The two models most often cited in the marketing ethics literature are Ferrell and Gresham's Contingency Framework of Ethical Decision Making (1985) and Hunt and Vitell's General Theory of Marketing Ethics (1986). These models posit several antecedents of ethical or unethical decision making in a marketing context. The antecedents are assumed to be applicable to the universe of marketing situations.

Antecedents of Ethical Decision Making

The antecedents of ethical decision making include individual moderators, environmental factors, organizational factors and opportunity (Ferrell, Gresham and Fraedrich 1989). Individual moderators include personality, attitudes, knowledge, level of cognitive moral development and the individual's moral philosophy. Social considerations, cultural norms, economic conditions and technology comprise the environmental dimension. Organizational variables involve the culture of the organization, significant others and situational factors. Significant others are those individuals who serve as a "frame of reference" for persons involved in ethical decision making. It is assumed that persons learn ethical/unethical behavior through interaction with intimate personal groups (Ferrell and Gresham 1985). Situational factors may provide the perception that some "business practices may be considered unethical yet may be tolerated under certain circumstances" (Bellizzi and Hite 1989, p.36). Finally, the opportunity to engage in ethical/unethical behavior is a function of a "favorable set of conditions to limit barriers or provide rewards" (Ferrell and Gresham 1985, p.92).

These variables have been explicated in previous research efforts and comprise several hypothesized relationships that have been empirically validated. Ferrell, Zey-Ferrell and Krugman (1983) found that referent others and the opportunity to engage in unethical behavior are the primary factors influencing ethical decision making. Organizational type and bureaucratic structure can also affect ethical behavior. The more employees perceived bureaucratic structuring in their organizations, the higher the level of reported ethical behavior (Ferrell and Skinner 1988). Top managers, acting as significant others, have been shown to be the single best predictor of ethical problems (Hunt, Chonko and Wilcox 1984).

Interorganizational Ethics

Deshpande and Zaltman (1984) set the stage for examining inter-organizational relationships when they discussed how different organizational contexts (users versus providers of marketing research) can affect perceptions of the use and worth of marketing research. Skinner, Ferrell and Dubinsky (1988) describe this situation using a "two-communities" metaphor, where organizations involved in a working relationship will have divergent expectations, perceptions, goals and ethical standards for the exchange.

Despite the beginnings of empirical validation of hypothesized relationships between certain variables and ethical decision making, most of the research on interorganizational ethics has been conducted in the context of marketing research firms and departments (e.g. Hunt, Chonko and Wilcox 1984, Ferrell and Skinner 1988, Akaah and Riordan 1989). In these cases, different types of market research firms or different marketing professionals involved in marketing research were studied. In sales organizations as well, the ethical conduct of different levels or members of the exchange relationship is of interest.

Ethical decision making behavior for members of a marketing channel may be influenced by interorganizational relationships and the ethical standards of more than one organization (Skinner, Ferrell and Dubinsky 1988). For the present purpose, the ethical decision making of salespeople is examined. Top managers, other salespeople and sales clients act as "significant others" and will have an influence on the ethical behavior of a salesperson (Hunt, Chonko and Wilcox 1984, Ferrell and Gresham 1985, Akaah and Riordan 1989).

There are few published studies that facilitate an understanding of the influence different organizations involved in

a selling relationships have on each other's ethical behavior. Different organizations often have "conflicting goals, different reward systems, and different communication patterns" (Skinner, Ferrell and Dubinsky 1988, p.218) which can lead to ethical dilemmas. Such conflicts are said to be "pervasive and inherent" in many internal and external organizational relationships (Rosenberg and Stern 1970, p.40).

Existing Research on Ethics in Sales Organizations

The growing acceptance of positive models of ethical decision making (Jones 1991) and the subsequent empirical testing of their hypothesized relationships (e.g. Mayo and Marks 1990; Reidenbach and Robin 1990) has prompted researchers to consider ethical behavior in a variety of marketing contexts. However, the following discussion is limited to several studies concerning ethics in sales organizations.

Wotruba (1990) developed a framework that analyzes ethical behavior in sales organizations. The framework is comprised of four main factors, including moral decision structure, characteristics of the decision maker, situational moderators and outcome variables. These factors are proposed as antecedents of ethical problems in sales organizations. Further, the four antecedents provide a framework for understanding how salespeople arrive at ethical decisions and actions. Unethical behavior is the focus of Bellizzi and Hite's (1989) survey of sales executives and their actions toward unethical salesforce behavior. A salesperson's overall work performance, organizational consequences and gender were found to significantly affect a supervisor's reaction to an unethical act.

Another study examined the incidence of gift giving in a sales context. Trawick, Swan and Rink (1989) tested the circumstances under which gift giving was perceived as ethical. In general, gift giving to current customers was seen as more ethical than gift giving to sales prospects. Finally, Caywood and Laczniak (1986) analyzed the play, Death of a Salesman and offer several points for discussion. Of immediate interest are that ethical conficts are inherent in personal selling and that the determinants of ethical behavior are diverse and possibly conflicting.

These studies serve as a necessary first step in the systematic study of ethical decision making in sales organizations by affirming the existence of ethical dilemmas in selling situations and the importance of further research on the topic. In order to advance research on ethics in sales organizations, the remainder of this paper delineates antecedents of ethical decision making. Of primary concern are the organizational, relational and environmental influences on selling behaviors and relationships.

Antecedents of Ethical Decision Making in Sales Organizations

Environmental variables, structural considerations, and relational dimensions are key research and pragmatic concerns in the organizational behavior literature. These constructs have been used to identify conditions that lead to certain communication strategies (e.g. Mohr and Nevin 1990), conflict resolution methods (e.g. Dant and Schul 1992) and incidents of opportunistic behavior (e.g. John 1984). Although these studies did not specifically address selling situations, they all concern relationships both within and between organizations. This section explicates the environmental, structural and relational nature of selling situations. We examine these constructs and develop propositions for their relationship with ethical decision making in sales organizations.

Structural Dimension

Bureaucratic structure is comprised of the formalization of operating procedures, centralization of authority and control variables. Formalization involves the standardization and recording of procedures, roles and rules that guide the or-0ganization. Centralization is the degree to which decision-making authority is granted to lower levels of the organization. Centralized organizations leave most of the power to a small group of top managers. Control variables consist of "rules, standards...internal procedures...shared values and philosophical orientations..." (Ferrell and Skinner 1988, p.105).

Researchers in both marketing ethics and channels of distribution have studied bureaucracy and its effects on organizations and organizational relationships. However, it is possible to find conflicting hypotheses and results surrounding the effects of bureaucratization. Both John (1984) and Provan and Skinner (1989) found that higher degrees of bureaucratic structuring were positively related to opportunism. Conversely, Williamson (1981) hypothesized that since greater bureaucratization entails more regulations, control, and threat of sanctions, opportunism can be reduced.

Although opportunism and unethical behavior are not synonymous, they are relative constructs and it is possible to extrapolate to an ethics context (Kelley, Skinner and Ferrell 1989). Ferrell and Skinner (1988) found that the greater the perceived bureaucratic structure of an organization, the higher the level of ethical behavior. Here, enforced ethical codes were found the promote ethical behavior. Bureaucratization involves the formalization of codes of conduct, the opportunity to control ethical decisions, and the enforcement of ethical policies. Therefore, the existence of codes of conduct as well as a high incidence of enforcement will lead to more ethical behavior.

> Proposition 1: Salespeople working in organizations that are highly bureaucratized are more likely to make ethical decisions than when working is less bureaucratized organizations.

Environmental Conditions

Theories of environment have focused on developing a large number of descriptors to represent environmental dimensions (Achrol and Stern 1988). For the present paper, the environment's level of scarcity, dynamism and heterogeneity are considered important because they often create conditions that result in unethical or illegal behavior (Baucus and Near 1991).

Scarcity. Environmental scarcity has been hypothesized as affecting organizational behavior because it increases the uncertainty facing an organization's members (Pfeffer and Salanick 1978, Achrol and Stern 1988). Therefore, managers will often take action to both protect themselves from uncertainty and to decrease the uncertainty surrounding environmental conditions.

Uncertainty about the scarce environment reduces the applicability of normal decision rules to business situations. Employees will be faced with unfamiliar circumstances and may unknowingly make unethical decisions. In other cases, unethical behavior may be a consequence of intense competition for resources. Staw and Szwajkowski (1975) concluded that resource scarcity increases organizational mem-

bers' tendency to commit illegal acts. Conversely, Baucus and Near (1991) found that illegal corporate behavior is prevalent in munificent, not scarce, environments. The authors explain that in a munificent environment, organizations often concentrate on growth strategies and illegal behavior may be a way of acquiring additional resources.

Illegal behavior may be an "unintended outcome of managers' efforts to take advantage of a favorable situation" (Baucus and Near 1991, p.31). However, the acquisition of additional resources is also a primary concern in scarce environments. Despite Baucus and Near's (1991) empirical evidence suggesting otherwise, it seems likely that when the environment is scarce, there is a greater tendency for individuals to resort to behaviors they would not ordinarily use. Because there are constraints on the normal functioning of the environment, the salesperson may "cut corners" in order to maintain a certain level of performance.

Dynamism. Environments that are rapidly changing are dynamic and turbulent. Achrol and Stern (1988) define dynamism as "perceived frequency of change and turnover in marketing forces in the output environment" (p.37). Dynamism may disband an otherwise highly structured organization, causing information and responsibilities to disperse among members. A dynamic environment will create uncertainty for organizational decision-makers because long-range planning is difficult, as both competitors and customers are changing rapidly. Standard operating procedures are often faulty or out-dated and a decision-maker may unknowingly commit an unethical act (Baucus and Near 1991). Conversely, in an effort to cope with a dynamic environment, it may seem necessary to behave unethically. Such actions are often excused because of situational factors (Bellizzi and Hite 1989).

Heterogeneity. Heterogeneity is an aspect of the complexity of the environment. Complexity refers to the "degree of similarity or differences perceived between the elements of the population dealt with..." (Achrol and Stern 1988, p.37). Salespeople deal with many diverse organizations including multiple customers, regulatory agencies, other salespeople and management personnel. Greater heterogeneity of the populations served leads to more uncertainty for salespeople. The environmental conditions are ambiguous and "established rules do not apply... and (salespeople) may not know what behavior is required or expected" (Baucus and Near 1991, p.31). Therefore, unethical behavior may occur because of a lack of understanding of the divergent population's needs and how to respond to these differences. Salepeople must often act quickly and precisely without thorough investigation and preparation.

The scarcity, dynamism and heterogeneous nature of the environment will affect a salesperson's ability to make ethical decisions. These factors create uncertainty and may promote behaviors that would not occur under stable, munificent and homogeneous conditions.

> Proposition 2: Salespeople operating in an environment characterized as dynamic, scarce and heterogeneous are more likely to act unethically than when operating in an environment that is munificent, stable and homogeneous.

Relational Context

Both marketing channel members and salespeople are faced with intraorganizational and interorganizational relationships. Because both groups are involved in exchange situation, they will often experience similar situations and conflicts. It is possible to discuss sales relationships in those terms commonly employed by marketing channels' researchers.

Relational exchange has become integral to most discussions of marketing channel relationships. That is, the channels of distribution literature has embraced the idea that contractual relations and exchanges can be delineated on a continuum ranging from discrete transactions to relational exchange (Macneil 1980). Sales transactions are subject to this same categorization.

Discrete transactions are of short duration and are characterized by a distinct beginning and ending (Dwyer, Schurr and Oh 1987). There is very little communication between the two parties involved in the transaction and thus, the importance of personal relationships is minimized. The focus of the transaction is on the "substance of exchange," not any future obligation (Dwyer, Schurr and Oh 1987, p.13).

Relational exchanges are long-term, continuous and personal and psychological satisfactions are important. As Macneil (1978) noted, people involved in relational exchange are a part of a "minisociety with a vast array of norms beyond those centered on the exchange and immediate processes" (p.901). Further, organizations engaged in such a relationship are interdependent and should engage in high levels of trust and solidarity (Anderson and Narus 1990), role integrity (Kaufman and Stern 1988), and mutuality (Kaufman and Dant, 1991). Although the relational context of the exchange involves more than these constructs, it is proposed that trust, mutuality and solidarity will influence salespeople's propensity to engage in ethical behavior.

Trust. Young and Wilkinson (1989) studied trust and cooperation in marketing channels and concluded that the duration of the interorganizational relationship, the relative power of channel members, and the environment and competitive situation affecting the relationship were related to trust between channel members. Mutual trust is an imperative for relational exchange in selling relationships. The cooperation of people involved in an exchange leads to this mutual trust (Anderson and Narus 1990). Trust promotes cooperation in the future.

Mutual trust in an exchange relationship involves a bonding and feeling of belongingness (Young and Wilkinson 1989). The relationship is reciprocal, interdependent and involves "efforts at unity" (Dwyer, Schurr and Oh 1987, p.13). In a relationship characterized by high levels of trust, ethical behavior is more likely to occur than in relationships where unity and interdependency are negligible. Persons will behave ethically because of the security and desirability of maintaining a honest and reciprocal relationship.

Solidarity. The continuation and preservation of the business relationship is the essence of solidarity (Kaufman and Stern 1988). Solidarity is a constraint to unethical behavior because exchange partners are motivated to maintain the trust and honesty necessary for future relations. Cooperation is a part of solidarity since those involved in relational exchange are more cooperative than what is required for discrete transactions (Schurr and Ozanne 1985). The desirability and expectation of an on-going relationship promotes fair and reciprocal treatment among exchange partners. Therefore, in a selling relationship characterized by relational exchange, the presence of the solidarity norm will reduce the propensity to act unethically.

Mutuality. The third contracting norm of mutuality involves the expectation of "positive outcomes from the ongoing and indeterminate relationship" (Kaufman and Dant 1991, p.6). Individual transactions within a relational context are treated as "entries on an ongoing ledger" (Macneil 1981, p.1029). Mutuality is also referred to as reciprocity because there is a positive motivation to maintain the exchange relationship. If mutuality is present, both parties will be reluctant to make

unethical decisions because of the commitment and expectations of the relationship. The following proposition integrates the mutuality, solidarity and trust dimensions of relational exchange.

Proposition 3: Salespeople who participate in exchange situations characterized as relational are more likely to engage in ethical decision making than when making discrete transactions.

Conclusions

This paper has examined the affect of several variables on ethical decision making in sales organizations. Because salespeople must deal with both internal and external publics, it is recognized that certain conditions surrounding these relationships will influence ethical decision making. We have examined characteristics of sales organizations, forms of sales transactions and environmental conditions. The Figure depicts the relationships we propose between ethical decision making and the structure, environmental and relational nature of selling relationships.

In those sales organizations characterized by high levels of bureaucratization, unethical acts are less likely because the necessary formalization of codes of conduct and the threat of sanctions are prevalent. The relational context of sales relationships also influences the propensity of salespeople to act unethically. High levels of trust, mutuality and solidarity indicate the expectation of a long, personally-satisfying relationship that involves more than an exchange of monetary concerns. A high relational context promotes ethical behavior by ensuring the interdependence and maintenance of the sales relationship through trust and honesty. Finally, scarcity, dynamism and heterogeneity in the environment are possible antecedents of unethical decision making in sales organizations. These conditions create uncertainty for decision makers and may cause salespeople to act unethically in order to keep up with the rapidly changing environmental conditions, the competition for scarce resources and the complexity of heterogenous customer populations.

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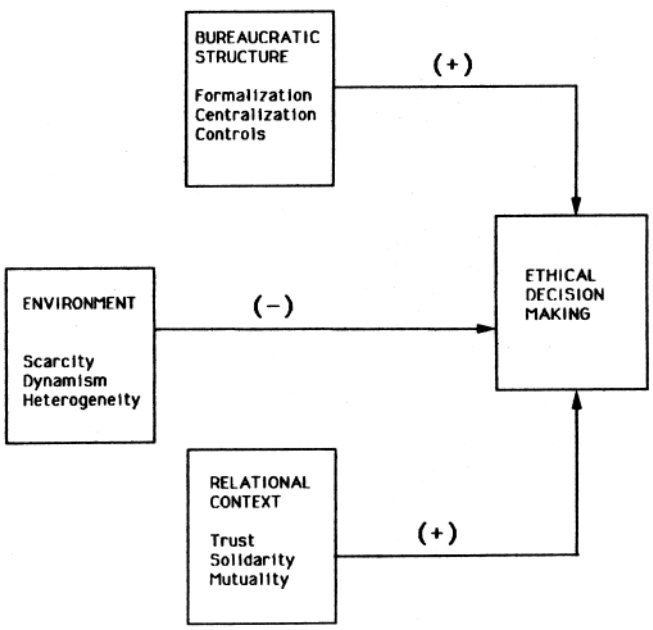
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FIGURE

ANTECEDENTS OF ETHICAL DECISION MAKING IN SALES ORGANIZATIONS



AN EXAMINATION OF THE EFFECTS OF BEHAVIORAL VARIABLES AND EMPLOYEE CHARACTERISTICS ON THE SALESPERSON'S PROPENSITY TO QUIT

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ABSTRACT

The present research examines the effects of personal, psychological, and job-related factors on propensity to quit. The research provides the foundation for the development of a profile of "high PQ" candidates. Our results fail to support the existence of several attitudinal variables thought to be predictors of PQ. The findings may be useful in predicting PQ levels much earlier in a sales career and from less complex variables. These findings hold implications for sales management researchers and human resource/personnel managers.

Introduction

Employee turnover has been a frequent topic of study in the social sciences (e.g., Farris 1971; Johnston, Parasuraman, Futrell, and Black 1990; Lucas, Parasuraman, Davis, and Enis 1987; Muchinsky and Tuttle 1979). The importance of research in this area accrues from managers' need to understand the variables which affect employee's propensity to quit (PQ), so that they will be better able to manage this negative influence on a salesperson's career stability. More important for the aims of the current study, however, is the ability to predict high levels of PQ from variables readily available in personnel records, and many commonly used employee opinion surveys.

A problem with much of the research in employee turnover is that it concludes with the determination of significant influencing variables, but does not attempt to use those variables as a means of predicting propensity to quit. One exception is Lucas, et al. (1987), which discriminated on four behavioral factors and three personal characteristic variables to develop a discriminating function for classification of turnover groups.

Following Lucas, et al. (1987), the present research examined the discriminating ability of both behavioral variables and employee characteristics, and extended prior analyses by including several variables related to the job itself. The current research examines five categories of potential discriminators of PQ: (1) job satisfaction (both extrinsic and intrinsic factors), (2) organizational commitment, (3) job involvement, (4) role stress, and (5) nine personal characteristic measures (i.e., sex, age, education, income, etc.). The inclusion of these particular variables in a study of PQ is based on three considerations. First, many of these variables have received attention in early non-predictive studies of turnover (cf. Farris 1971; Kraut 1975; Muchinsky and Tuttle 1979), as well as in more recent turnover research (cf. Johnston, et al. 1990; Lucas, et al. 1987). However, the present research incorporates a set of variables which have not been analyzed together for purposes of evaluating predictive capability on PQ. Parasuraman and Futrell (1983) for example, used many of the same variables used here, however, their study uti-lized a correlational analysis, with no attempt at prediction. Second, these constructs reflect fundamental attitudinal and behavioral components present in existing research on salesforce performance (cf. Schul and Wren 1991; Walker, Churchill, and Ford 1977), and thus will facilitate future research efforts directed at linking PQ and performance. Finally, the inclusion of certain employee characteristics may provide direction to future research efforts seeking "simple" predictors of PQ, which could be important to salesforce recruiters and those re-sponsible for training and socialization of sales recruits. For employers not able, or willing, to administer a battery of psychological tests to prospective employees, it would be useful to know what readily attainable personal characteristics tend to lead to high PQ levels.

Theoretical Background

Here we present a brief discussion of theoretical and empirical foundations of our research. This is accomplished by examining relevant research from the sales and occupational behavior literature.

Job Satisfaction

The intuitive relationship between job satisfaction and PQ is borne out by its inclusion as a primary variable in turnover studies from the psychology, organizational, marketing, and management literatures (Arnold and Feldman 1982; Busch and Bush 1978; Koch and Steers 1978; Marsh and Mannari 1977; Swan and Futrell 19-78). Most of the earliest turnover studies involving salespeople (cf. Kraut 1975), used intrinsic and extrinsic job satisfaction as the sole correlates of turnover. In a review of 48 turnover studies, Lucas, et al. (1987) found that 28 included intrinsic job satisfaction, while 23 contained extrinsic job satisfaction measures.

In order to bring more specificity into the understanding of the relationship between job satisfaction and intention to leave, the present research breaks extrinsic and intrinsic satisfaction into more informative components. Consistent with the literature, extrinsic satisfaction is represented by pay related items (e.g., pay, benefits, future earnings) and items related to supervision (e.g., recognition, interaction). Intrinsic satisfaction is represented by job richness (e.g., routineness, variety) and degree of felt autonomy (e.g., freedom to use judgement, self-supervision) (Lucas, et al. 1987; Schul and Wren 1991). Job satisfaction, or the lack of

it, would seem to be a variable capable of a major contribution to the employee's level of PQ.

While a very high level of job satisfaction may lead to a high level of PQ, the converse does not necessarily follow; a highly satisfied salesperson may envision being even more satisfied elsewhere. Thus, job satisfaction may have a skewed effect on PQ, contributing more to high levels than low.

Organizational Commitment

In contrast to job satisfaction's potential for skewed effects to the high end of a PQ scale, organizational commitment may play exactly the opposite role. Johnston, et al. (1990) studied salespeople's organizational commitment and found that even moderate levels of commitment can a have a strong restraining effect on the employee's propensity to leave. Their finding of a strong negative correlation (-.726) between organizational commitment and turnover intentions is the strongest relationship found in our literature review on PQ.

It is likely the more enduring nature of commitment, as compared to the temporal aspects of satisfaction, which earns it this important role in influencing low PQ scores. Blau and Boal (1987) define organizational commitment as "a state in which an employee identifies with a particular organization and its goals, and he/she wishes to maintain membership in the organization in order to facilitate its goals" (p. 290). This strong commitment to the firm can help one endure a bad relationship with the current supervisor, and even a period of poor earnings. In fact, organizational commitment can be thought of as the antithesis of intention to quit; it is even possible that these two variables, as measured by the scales used in this study, are reverse surrogates of each other. Our research does not explore this aspect, but caution should be raised to this possibility in future research efforts.

Job Involvement

This variable differs from commitment in two important aspects. First, it is job-specific, not organization-based. That is, one can be very involved with (or committed to) the profession of sales, without being committed to the current employer. A person may remain with the current employer while hoping to eventually move to a better job in the same field. In fact, many salespeople may actually view "job-hopping" as the fastest way to establish the status of "professional".

Second, the involvement one has with a job (or with a given firm) is not the same as commitment to that job (or firm). Past literature has defined job involvement as "the degree of importance of one's job to one's self-image" and the degree to which an individual's self-esteem or self-worth is affected by his/her performance level" (Blau and Boal 1987, p.290). Job involvement is associated with the internal work motivation that a person has with a profession, not a particular organization. Given alternative employment opportunities, high job involvement should be a much weaker restraint on PQ than organizational commitment.

Role Stress

The variables role conflict and role ambiguity are often treated together as role stress (Behrman and Perreault 1984; Hamner and Tosi 1974; Rizzo, House, and Lirtzman 1970). These two measures are present in most research on job satisfaction and turnover. They are, however, more controversial than any other constructs included in the present research. There is lack of consensus as to whether role conflict and role ambiguity are two distinct components, or whether they should be treated more parsimoniously as simply role stress. Since management actions to reduce conflict, and to clarify ambiguities, are so distinctly separable and so potentially effectual, there is good rationale for including the constructs in the two-variable form.

Employee Characteristics

The nine personal variables included in this analysis are: age, sex, family status (e.g., single, married, children, etc.), spousal employment, income level, education level, job tenure, prior sales experience, and compensation plan (e.g., straight salary, commission, and various combinations).

Three of these variables (age, job tenure, and education) were included in a three sample discriminant analysis on salesforce turnover by Lucas, et al. (1987). These researchers found that only age was a significant discriminator in all three samples. Tenure was significant in two of the samples and education in only one. A fourth variable, sex, was found by Schul and Wren (1991) to show significance in salesperson turnover intentions (higher for females than for males). Also, family status and spousal employment are personal situation factors which, while not included together in any of the reviewed research, may have effects in PQ. Alternatively, these factors may serve only as restraints on, or causes of, actual turnover, with little relation to intentions to leave.

Household income may also be a positive contributor to PQ, both when it is uncomfortably low, and when it is high. Those with relatively high income may feel more secure in changing jobs, and also may become somewhat "heady" as to their potential value to other employers. A factor related to income is the manner in which the salesperson is compensated. Whether the person is paid straight salary, straight commission, or a combination of these two may moderate an individual's degree of PQ. This moderating effect is likely accomplished through either job satisfaction or role conflict. We felt justified in including this factor as a potential predictor of PQ.

Finally, prior employment was considered to have intuitive appeal as a potential predictor variable. Prior sales experience is likely to provide more self-confidence in the person's ability to perform the job. This will lead to more job satisfaction and potentially affect PQ. Prior experience may also contribute to a greater

understanding of the value, or lack thereof, of switching jobs. This is likely to affect the person's desire to leave his or her present position.

Method

Sample and Data Collection

The data used for the analysis of the study variables was collected from the salesforces of a total of fifteen firms across a variety of industries, including cosmetics/health products, computer equipment, industrial equipment, and various business services. This broad representation of industries is desirable because it will add to the generalization of study findings. The firms represented in this study also provided an integrated salesforce, with a good distribution of demographic characteristics. See Table 1 for characteristics of the sample.

The implementation of the data collection phase included the mailing of packets of information to regional sales managers of the firms of interests. The sales managers then distributed the packets to a total of 1300 sales representatives in the 15 firms, who completed the questionnaire and returned it directly to the researchers. The response rate of the sample was approximately 43 percent, yielding 560 returned questionnaires.

Operationalization of Study Variables

The measures used in the present research were derived from previous literature and subsequently pretested with focus groups in order to refine the scale items. Each of the scales was subjected to a principal components factor analysis, using a .40 cutoff for item-scale selection (Rummell 1967). The refinement of original scales allowed for a more valid and reliable measurement of the variables of interest. See Table 2 for a summary of the scaling formats (factors measured, original scales, and number of indicators for each) and reliability of the scales.

Analysis

Stepwise multiple discriminate analysis (MDA) was used to determine which of the 17 previously mentioned variables discriminated between two predetermined groups (i.e. Group 1 consisting of those respondents who have a low propensity to quit and Group 2 consisting of those having a high propensity to quit). In order to define two distinct groups of PQ, without resorting to a median split, we determined the full sample mean of PQ and eliminated approximately 16 percent of the cases on either side of the mean. This resulted in the elimination of the middle one-third of the sample, those scoring between seven and ten, inclusive. What remained were 274 cases with a PQ score between four and six, inclusive, and 100 cases with a score between eleven and twenty. This 75/25 percent split between low and high PQ groups was used as the prior probability in our MDA.

Following group definitions, stepwise MDA using the Mahalanobis procedure was performed to test the null hypothesis that the potential predictor variables do not discriminate on PQ. Given the large number of predictor variables, the Mahalanobis procedure was used because of its stepwise method of variable selection which makes maximal use of available information. The selection rule used in this procedure maximizes the distance be-tween groups (Hair, Anderson, and Tatham 1987).

TABLE 1
DESCRIPTION OF SAMPLE
(all numbers are percentages)

Description	Sample (n = 560)
Sex	
Male	60.9
Female	39.1
Age of Respondent	
Under 26	11.1
26-3019.1	
31-35	19.2
36-40	19.1
41-50	18.9
Over 50	12.6
Family Status	
Single	28.6
Married, no children	17.9
Married, w/children under 12	23.1
Married, with children 12-18	12.9
Married, grown children	16.4
Married, spouse deceased	1.1
Spouse Employment	
Employed (full-time)	48.5
Employed (part-time)	10.7
Not employed	11.1
I do not have a spouse	29.7
Education	
High school or less	17.1
Some college	36.6
College graduate	34.2
Post graduate work	12.1
Household Income	
Under $20,000	18.3
$20,000 to $29,999	21.2
$30,000 to $39,999	15.9
$40,000 to $49,999	16.1
$50,000 to $59,000	9.3
Over $60,000	19.2
Experience in present company	
One year or less	36.4
Two to three years	15.3
Four to ten years	33.9
Eleven to fifteen years	3.9
More than fifteen years	10.5
Overall sales experience	
Less than three years	24.6
Three to five years	20.8
Six to ten years	26.5
Eleven to fifteen years	10.5
More than fifteen years	17.6

TABLE 2
SCALE DIMENSIONS AND RELIABILITIES

Construct[a]	Number of Items	Reliabilities[b]
Job Satisfaction:		
Pay (PAY)	5	.8533
Supervision (SUPER)	3	.7700
Job Richness (JOB)	8	.8526
Autonomy (AUTO)	3	.7356
Organizational Commitment (COMM)	13	.9145
Job Involvement (JOBINVOL)	4	.7665
Role Stress:		
Role Conflict (RC)	9	.8199
Role Ambiguity (RA)	6	.8091
Propensity to Quit (PQ)	4	.8898

[a] Original Scales Used:
Job Satisfaction - Schletzer (1965).
Organizational Commitment - Mowday, Steers, and Porter (1979).
Job Involvement - Items derived from literature.
Role Stress - Rizzo, House, and Lirtzman (1970).
Propensity to Quit - Items derived from literature.
[b] Reliabilities were assessed using Cronbach's Alpha (1951).

For our evaluation of predictive accuracy, the "holdout" validation technique was used. This procedure divides the full sample into "training" and "validation" subsamples, on a random basis. For our purposes, the discriminant function was developed using 60% of the sample as the training sample, while the remaining 40% was used for validation. The results of this type of procedure should provide a more rigorous test of the discriminant function.

Results

The results from the two-group multiple discriminant analysis are shown in Tables 3 and 4. Table 3 provides the overall discriminant analysis results for the two-group model based on high PQ versus low PQ. The results indicate that the discriminant function is significant ($p < .001$) and displays a canonical correlation of .785. The square of the canonical correlation is .616, meaning that 61.6 percent of the variance in the dependent variable (PQ) can be explained by this model.

The summary in Table 3 indicates that, following the stepwise procedure, six variables--organizational commitment (COMM), satisfaction with pay (PAY), family status (FAMILY), job involvement (JOBINVOL), compensation plan (COMPLAN), and level of education (EDUC)--were found to be significant discriminators based on Wilk's lambda and the minimum D-squared. The standardized function coefficients represent the relative importance of each of the variables in the discriminant function.

The structural correlations reported in Table 3 represent the simple linear correlation between each of the six individual discriminating variables and the overall discrimination function. These correlations tend to be more stable than the function coefficients referred to above (Hair, Anderson, Tatham, and Grablowsky 1979). Just as in the function coefficient rankings, COMM and PAY were ranked one and two, respectively, in order of importance. The rankings of the other variables differed slightly; however, both statistics produced the same set of significant variables.

Table 4 shows the "hit rate" of both the training sample and the validation sample. As mentioned earlier, the "holdout" method of accuracy assessment was employed, using a 60/40 split. The use of the training sample produced an overall hit rate of 92.4 percent. Interestingly, the accuracy rates for predicting membership in the two groups of PQ differ somewhat. The hit rate for the low PQ group was 97.2 percent, while that of the high PQ group was only 79.2 percent.

The accuracy of the discriminant function when applied to the validation sample remained relatively consistent, with an overall hit rate of 88.8 percent (95.2 percent and 66.7 percent for the low and high PQ groups, respectively). It is important to note that the accuracy for the function is substantially higher than the hit rate which might be attained by chance. Given the accuracy of the discriminant function, it is apparent that this function is a tenable predictor of low or high propensity to quit.

TABLE 3
TWO-GROUP DISCRIMINANT ANALYSIS RESULTS

Variable	Standard Function Coefficient (Ranking)	Structure Correlation (Ranking)	F-Value	Mahalanobis Summary Minimum D-Squared	Sign.	Chi Square	Wilks' Lambda
COMM	-.806 (1)	-.885 (1)	162.286[a]	6.446	.000		
PAY	-.334 (2)	-.519 (2)	92.327[a]	7.392	.000		
FAMILY	-.213 (3)	-.143 (4)	63.345[a]	7.667	.000		
JOBINVOL	-.194 (4)	-.305 (3)	48.471[a]	7.885	.000		
COMPLAN	-.183 (5)	-.068 (6)	39.373[a]	8.069	.000		
EDUC	.144 (6)	.081 (5)	33.187[a]	8.228	.000		
						120.68[a]	.384[a]

[a] Significant at $p < .001$ level.

TABLE 4
ACCURACY OF DISCRIMINANT FUNCTION

Actual Group	"Training Sample" Predicted Group Low PQ	High PQ	"Validation Sample" Predicted Group Low PQ	High PQ
Low PQ	97.2%	2.8%	95.2%	4.8%
High PQ	20.8	79.2	33.3	66.7
Overall "Hit Rate"	92.4%		88.9%	

Discussion and Implications

Our findings suggest important, albeit preliminary, implications for practitioners and researchers. The variables which proved to be significant at discriminating between levels of PQ represent behavioral, personal, and job-related variables. Each of these variables represents a useful contribution to our discernment of the dimensionality of PQ.

The COMM variable indicates that employees with higher commitment to the organization are more likely to exhibit a low propensity to leave the organization, as postulated. COMM was the most influential predictor variable, again suggesting that this measure and the PQ scale may be reverse surrogates. Also, individuals who are more involved with sales as a profession (JOBINVOL) are less likely to develop an intention to leave.

The individual's satisfaction with the pay and benefits of a job (extrinsic rewards) is shown to negatively influence his or her propensity to leave. That is, when a person is satisfied with pay and benefits, he or she is more apt to report lower PQ scores. Interestingly, the PAY variable is the only one of the job satisfaction variables found to be a significant discriminator on PQ; neither of the intrinsic satisfaction variables (job richness, autonomy) were significant predictors.

The personal characteristic variables produced two measures which were negatively related to PQ, and one which was positively related. The person's family status (FAMILY) and compensation plan (COMPLAN) were both negatively related to PQ, while education level (EDUC) produced a positive relationship. With respect to family status, it appears that as a person marries and moves through the family life-cycle they become less likely to develop a high intention to leave. Thus, as workers reach the latter stages in the family life-cycle, career aspirations stabilize (i.e., lower tendency to leave for career advancement).

The compensation plan was also negatively related to PQ, when scored with higher values relating to 100% commission plans. This indicates that a salesperson on straight salary is more likely to have a high PQ than those on straight commission. A possible explanation for this is that the salesperson may see the commission plan as offering greater potential for high income. Thus, the desire for higher income motivates the salesperson to leave the straight salary position.

With regard to the positive relationship of education level and PQ, it appears that as formal education increases, the propensity to quit increases. This seems intuitively logical, since one would expect higher levels of education to lead to more career opportunities, higher career aspirations, and possibly, to greater confidence in making career changes.

It is important to note two limitations of the present findings. First, the variables identified should be considered as a set of factors which have been shown to influence propensity to quit. One should not interpret these findings to imply that any one factor will necessarily change a person's level of PQ. But, organizational commitment does seem to be a major restraint on voluntary termination. Second, the eleven variables used in this MDA which did not show significance should not be interpreted as being unimportant to turnover research. Rather, it is the combined effect of the six significant variables which has been demonstrated to discriminate an individual's level of PQ.

Despite these limitations, the research does have its merits. We have developed not only a well-supported discriminant function for predicting PQ, but one with relatively non-complex variables. Most notably, and in significant agreement with the findings of Lucas, et al. (1987), we find an absence of influence by the several attitudinal variables (e.g., role stress, intrinsic job satisfaction, satisfaction with supervision) thought to be strongly associated with PQ and turnover. Taken together with the apparent strong correlation between organizational commitment and PQ (as possible reverse surrogates), our findings may be useful in predicting PQ levels much earlier in a sales career, and from much easier-to-measure variables.

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NORMATIVE CRITERIA FOR THE DEVELOPMENT AND APPRAISAL OF MARKETING THEORY

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Abstract

This paper examines the role of explanation in theory development, and the factors which make an explanation acceptable. Normative criteria for *developing* valid explanatory models are proposed. Criteria for *appraising* competing models are also presented. Two separate hierarchies are proposed, and are illustrated using a well-known model in marketing. It is hoped that this will lead to greater public debate relating to the assessment of theory development in marketing.

Introduction

Marketers and consumer researchers are constantly establishing explanations and constructing explanatory models, as well as presenting appropriate approaches to theory development. There have also been attempts at discussing the wider issues relating to the development and dissemination of marketing knowledge (Hunt 1983a; Monroe et al. 1988; Sheth and Garrett 1986). Yet, there is a surprising lack of formalization in terms of *criteria* pertaining to the development of new explanations, and to their appraisal in the context of existing alternative explanations. What factors make a newly developed explanation a valid, acceptable explanation? What factors make one explanatory model superior to another? Although there were some early attempts to address these issues, a consensus was never achieved (e.g., Mittelstaedt 1971; Zaltman, Pinson, and Angelmar 1973). Perhaps a formal well accepted set of criteria would further a more systematic theoretical development in marketing.

This paper examines criteria which are important in determining whether a proposed model qualifies as a valid and satisfactory explanatory model. The issue needs to be addressed at two levels: (a) The criteria that need to be met for a theoretical model to qualify as an *acceptable* model. These will be referred to as the criteria for the development of models; and (b) the criteria that make a proposed model better than a rival model. These will be referred to as criteria for the appraisal of models. Subsequently, since some of these criteria appear to be more important than others, hierarchies for these criteria are proposed. Since the focus of this paper is primarily morphological and the objective is not to develop a new model, an existing well-known marketing model from retailing (Huff 1964, the retail gravitation model) is used for the purpose of illustrating the concepts discussed.

As a discipline, marketing has been undergoing some soul-searching for about a decade. This is best reflected in the crisis literature relating to the critical relativism - empiricism debate (e.g., Anderson 1983; 1988; Siegel 1988; Hunt 1989). This paper does not attempt to engage in that debate. A recent article has very lucidly argued the case for scientific realism, and the importance of the pursuit of "truth" (Hunt 1990). This present work attempts to build upon that framework. It is noteworthy that most of the 1980s literature in marketing has *continued* to be in the empiricist tradition. Given that fact, it is important to develop a system for testing and evaluating theoretical contributions in some formal manner.

The Importance and Role of Explanations

There appears to be little disagreement concerning the primary goal of science: it is the extension of knowledge (Merton 1968). And explanations play a crucial role in the process of extending knowledge (Nagel 1961; Hunt 1983b). Alternatively, it has been suggested that the aim of science is to find satisfactory explanations of whatever strikes us as being in need of explanation (Popper 1983). Either way, the question is: What is an explanation? Within the marketing context an explanation is an answer to a question of the form "why X ?" where X designates a statement that supposedly is true and refers to some fact, event, or state of affairs (Turner 1965, p.334). For example, why do consumers from city A shop in city B? Why do more consumers prefer brand A over brand B? Why do some consumers adopt new products earlier than other consumers?

Developing Explanatory Models

When is an explanation acceptable and when is it not? A review of the literature in marketing reveals just two references to this issue. Zaltman, Pinson, and Angelmar (1973) state that scientific explanations must meet two requirements: the requirement of explanatory relevance (or, expectation of occurrence of the phenomenon), and the requirement of testability. Hunt proposes, in turn, four criteria: the above two, and in addition, intersubjective certifiability and pragmatism (1983a, p.84). It should be noted here that Hunt refers to these criteria as being normative criteria for "evaluating explanations", while these should be desirable prerequisites for developing valid explanations. Criteria for "evaluating" or appraising (comparing) a new model with an existing explanation would include factors like the scope, power, and relevance, as discussed later.

Criteria for Developing Explanations

Relevant criteria which appear to be useful as prerequisites and/or desirable attributes in an explanation are now discussed. Any new explanation that is developed should meet these criteria before it can be accepted by the discipline as a valid explanation.

1. Expectance. The account of some phenomenon provided by an explanation should constitute good ground for expecting that the phenomenon would appear under the specified circumstances (Hempel 1966). In other words, it should at least be shown that given some antecedent conditions, the phenomenon was somehow expected to occur (Hunt 1983a).

Thus, using Huff's (1964) retail gravitation model as an example, if a given shopping center devotes a relatively larger amount of space to a given product, it will be able to offer a better width and depth in that product line, making it relatively more attractive to potential customers. Further, the larger the travel time involved the less attractive the shopping center would be, resulting in the postulated inverse relationship. Finally, the negative impact of distance/travel time would be modulated by the importance of the product involved (varying exponent, lambda). Thus Huff's model meets this first criteria of expectance very well.

2. Empirical Content. This requires explanations to have some empirical content, making them empirically *testable*, so that findings could either support or disconfirm the explanation (Hempel and Oppenheim 1953). This criterion rules out purely analytic explanations. Thus variables must be defined such that they are measurable, and testable.

3. Verifiability. Explanations should also be objective in the sense of being "intersubjectively certifiable" (Hunt 1983a). That is, different investigators, with different opinions, attitudes and beliefs, must be able to verify the logic, and be able to conduct experiments or to observe the truth content of the explanation. Yet, the "reasonableness" or acceptability of probabilistic hypotheses varies with individual investigators, bringing into question the Hempelian value neutrality thesis (Leach 1968). The decision regarding the evidence and relating to how strong is strong enough is going to be a function of importance (cf., Calder, Phillips, and Tybout 1981).

It is important that although emphasis should be placed on this criterion of verifiability - without which we might have individual researchers each establishing their own world-view, instead of an objective science - care should be taken to allow enough flexibility to account for differences in personal values. In other words, each new explanation should be given a fair trial. This is particularly important when findings of some researchers support the explanation while those of others do not. As an important corollary, there is a need for developing objective criteria for defining acceptable levels of probabilistic evidence. In the context of Huff's model, although the empirical content is well defined, this kind of problem could be acute. Since the model is relatively simplistic, not including other potential variables like store image, advertising, and so forth, empirical results may be mixed, as indeed they have been, even though favorable findings have outweighed the others (Huff and Batsell 1977).

4. Functional Interdependence. Functional interdependence occurs when the explanans of a scientific explanation "E" must be stated in terms of variables or parameters variations in whose values will permit the derivation of other explanada which are appropriately different from "E" (Woodward 1979). Thus Huff's model defines trading areas of shopping centers within a city but the same basic model can be used to define the trading areas between cities. This is obviously a criterion which is desirable, but need not be necessary for all explanations.

5. Phenomenality. Not all scientific explanations are based on laws of strictly universal form (Hempel 1966). Human behavior is inherently so complex and varied that we can seldom make sharply confirmable (or disconfirmable) predictions from a model. At best, the chain of inference can be tested statistically (Ziman 1978). In other words, we might say that the explanans imply the explanandum, not with deductive certainty but only with high probability. Compounded with marketing's measurement problems explanatory models which strictly follow the universal form would indeed be rare. The probabilistic nature of Huff's model is obvious and needs no elaboration.

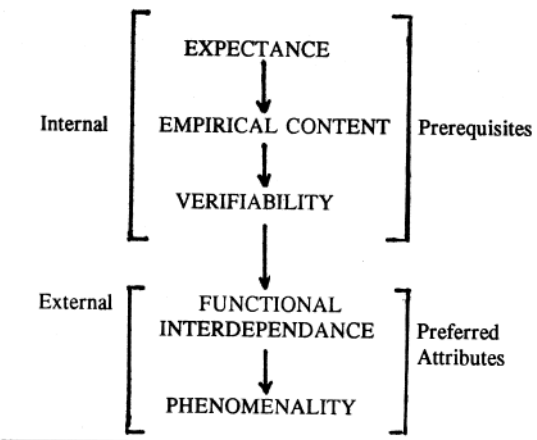
A second aspect of phenomenality lies in the direction of the relationship postulated (if at all) by the model. Though intuitively and logically appealing, causal relationships are difficult to prove beyond doubt. The problem of "hidden variables" (Ziman 1978), along with the statistical nature of many explanations only helps to compound the issue. Thus a well defined phenomenality remains a desirable attribute but need not be a necessary prerequisite for all "satisfactory" models that are developed.

A Hierarchy of Criteria for Theory Development

The preceding discussion outlined five normative criteria which appear to be important requirements when developing explanatory models. Do some criteria have to

FIGURE 1

A HIERARCHY OF NORMATIVE CRITERIA FOR DEVELOPING THEORETICAL MODELS



be satisfied before the application of others is meaningful? Is it possible to establish some kind of hierarchy within them? The following discussion investigates this issue.

When starting with an explanatory model, one has to first look at it in isolation: Is it's internal structure consistent, and would one expect the phenomenon to appear under the stated circumstances? Are there any logical inconsistencies within the model? These should establish the expectance (Figure 1).

At the second stage, one could examine whether the model has empirical content. This is important for determining whether the model is testable. It is also a vital precursor of stage three: without an empirical content a model could not possibly possess verifiability, since other researchers could not test it either.

During the first three stages the focus is "internal", towards the model itself. Subsequently, the focus shifts outward, with concerns regarding the explanatory model's matching with the existing body of knowledge. Thus the fourth stage is one of searching for external consistency. Once that stage is achieved, the basic *prerequisite* criteria are satisfied. The last two are attributes which are not necessary, but may be *preferred* in explanatory theories.

At stage five one could look at functional interdependence, which would result in wider scope of the model, and lastly we should look for phenomenality. If the model exhibits a universal form and/or the causal links can be established, then that would be one of the best possible models.

Appraising Explanatory Models

Once a newly developed explanation qualifies as being valid, we need to look at various other qualities of the explanation. Examination of these qualities is termed here as appraisal of a model, with respect to competing explanations, and a distinction is made with the earlier discussion regarding the attributes *necessary* for theories to be valid. The question now is: which explanatory model is *better*? Although such comparisons are sometimes made (e.g., Jacobson 1988), there is no generally accepted set of criteria that are used when making an appraisal of competing theories. Some normative criteria which might be useful for such evaluations are now examined.

To facilitate the discussion that follows, the Converse (1949) model relating to retail trading areas which preceded Huff's model is presented briefly:

$$(B_1 / B_2) = (P_1 / P_2) \cdot (4 / d)^2 ,$$

where:
B_1 = proportion of trade going to outside town
B_2 = proportion of trade retained by home town
P_1 = population of the outside town
P_2 = population of home town
d = distance to the outside town
4 = inertia factor

Criteria for Appraising Explanatory Models

Each of the criteria are now examined.

1. External Consistency. In addition to tests made against empirical situations, explanations can be tested against other accepted propositions (Meehan 1968). If the consequences of an explanation conflict with accepted knowledge in any field, one or the other must give way. Hence the proposed explanation should either be consistent with the accepted body of knowledge of the discipline (Hunt's "pragmatism"), or should convincingly demonstrate its veracity. An undue emphasis on this criterion would be intellectual conservatism (viz., Kuhn 1970). When Huff's model was introduced, it was consistent with the extant knowledge about empirical regularities in shopper behavior. It focused on the shortcomings of the existing explanations of retail trading areas based on the laws of retail gravitation (Converse 1949).

2. Scope. Progress in any discipline is generally from specific to general explanations. As pointed out by Kuhn (1970), the more general the explanation the longer they tend to last. Thus Huff's model can be used to explain inter-city as well as intra-city trading areas, while Converse's model is applicable only to inter-city phenomenon. Moreover, Huff's model also allows for variations in shopping behavior by product class. Thus it can be concluded that Huff's model explains a wider range of phenomena, and has wider scope. Other things being equal, explanations should preferably have a higher level of generality.

3. Precision. The precision of an explanation refers to the degree of specification of the variables involved, and of the relationships between those variables (Zaltman, Pinson, and Angelmar 1973). There are thus two aspects of precision: one concerning the specification of the variables, and the other concerning the relationship among variables. Ideally, there should be a high level of precision with little left ambiguous. Both Huff's and Converse's models have quite precisely defined variables, and the relationships among them are also clearly specified. Thus both models may be deemed to be precise.

4. Power. Power refers to the degree of control over the environment an explanation provides. Power depends on the precision of the description and the explanation, and the completeness of the explanation. Thus an explanation encompassing most or all relevant variables, and providing appropriate linking statements would be considered more powerful than an explanation that involves few variables inarticulately expressed, and relies heavily on the clause "other things being equal". The *ceteris paribus* clause is usually needed when not all relevant variables have been identified, or because their functioning is not well understood (Meehan 1968). In marketing there is often another important factor: because of measurement problems inclusion of certain variables becomes difficult.

Converse's model looks only at population and distance variables, while Huff's model looks at size of shopping centers, number of consumers, travel time, and even the varying "attractiveness" for different product classes, giving it relatively greater power. Nevertheless, because of other controllable variables like image of shopping center being left out, even Huff's model has only modest power in the absolute sense.

5. Reliability. Reliability refers to the frequency with which factors not included in the theory interrupt the situation that the explanation relates to. For example, in Huff's model excluded variables like the price/quality factor, advertising, and overall image could limit the explanatory power of the model some of the time, and in certain markets. How often these discrepancies manifest themselves? This can be determined usually through usage of the model. Thus Huff's model has been found to be relatively more reliable than Converse's model.

It should be noted that there is no absolute level of "desired reliability"; some reference needs to be made to the purpose for which an explanation is used (viz., Calder, Phillips, and Tybout 1981). Nevertheless, a fairly high level of reliability is important, otherwise it would not be very meaningful or useful.

6. Parsimony. When faced with alternative explanations, choosing the simpler explanation has high intuitive appeal. Thus one would prefer an explanatory model using three variables over one using seven variables if both of them account about equally well for the explanandum. Thus Converse's model is more parsimonious than Huff's, but it's scope is also markedly narrower. Usually parsimony and scope would be inversely related, and any judgement on one criterion should be taken *jointly* with the other. In our example we would prefer the less parsimonious Huff's model since it has significantly wider scope. Sometimes the sum of the number of variables used and the number of assumptions made may be used as a "measure" of parsimony (see Hage 1972, p.179).

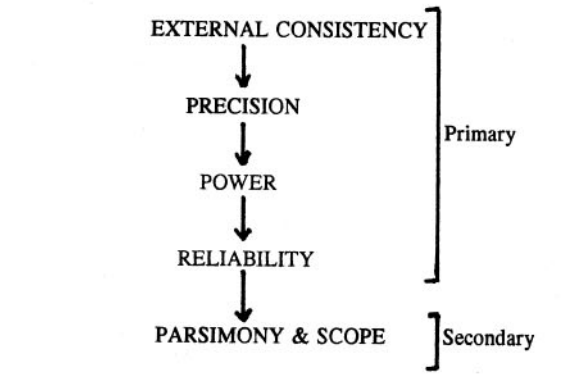
A Hierarchy of Criteria for Appraising Theories

The next question then is whether there is a hierarchy within the above five criteria? Do some criteria have to be satisfied first before the application of others is meaningful? When evaluating an explanatory theory by itself, or comparing two or more, we need to first look at the level of precision (see Figure 2). Without well defined variables and linkages it may be difficult to operationalize.

One case in point is the Howard-Sheth model of buyer behavior. Without the variables being well defined in operational terms, and the nature of the linkages being defined in terms of direction of influence (positive/negative) as well as form (linear/curvilinear/other), the usefulness of the model is severely restricted. Thus, if a model is going to contribute to the theoretical development of a discipline it should be, first and foremost, precise.

FIGURE 2

A HIERARCHY OF NORMATIVE CRITERIA FOR APPRAISING THEORETICAL MODELS



Since prediction and control closely follow explanation as goals of any scientific endeavor (Hunt 1983a), it follows that the next important criterion should be *power*. A high degree of power would imply a greater degree of control over the concerned phenomenon.

Once a model has been in use for some time, its reliability can be determined. Given the probabilistic nature of explanations in marketing, it is difficult for any model to have 100% reliability, but a high degree of it appears to be next important factor (Figure 2).

The three criteria discussed form the core of evaluation, and may be termed primary criteria. The remaining two are of a more egalitarian nature and may be termed secondary criteria. Once the smaller "building block" models are developed, and the discipline evolves and matures, explanatory theories would increasingly be of wider scope. Marketing is still in a state of flux, and while some areas now need theories with wider scope, other areas within the field need parsimonious explanations even with limited scope. For reasons discussed earlier, they should be placed at the same level within the hierarchy.

Conclusion

Successful theoretical development in any discipline requires rigorous norms for development of explanatory mechanisms, making these explicit, and developing criteria by which their usefulness can be judged. The literature in marketing does not reveal much formal exploration of these issues. This paper looks at the meaning and function of explanation and explanatory models while drawing upon the philosophy of science literature. Five criteria for developing explanatory models are proposed, and a normative hierarchy of these criteria is developed. After a

model is accepted as a satisfactory and valid explanation, we need to appraise or evaluate the model in relation to existing models. A second set of five criteria for such evaluations are pproposed, and a normative hierarchy for the appraisal of models is also developed.

It is hoped that the formalization of such criteria will aid the theoretical development of marketing as a scientific discipline. This paper is a modest step in that direction. It is hoped that it will lead to a public debate on this important issue.

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UNDERSTANDING THE RECYCLER: AN EMERGING ARENA FOR MARKETING STRATEGY

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Abstract

Solid waste management/disposal continues to climb the list of major challenges faced by city and municipal governments. Corporations question the extent of the differential advantage and goodwill gained from "green" marketing. This research addresses components of both issues. Specifically, this study profiles current recyclers based on usage levels, products recycled and recyclers' commitment to purchasing products packaged in recycled materials.

Introduction

The twentieth anniversary of the first Earth Day marked a pervasive change in the nature of the environmental movement. The expansion of the crusade is the result of a number of factors. First, a decade of Reagan's laissez faire approach to environmental issues coupled with a number of disasters such as Exxon's Valdez oil spill have angered the American public to the point where they are now willing to become involved and take action (Painton, Sheets). Second, corporations are beginning to realize that it's bad business to be the problem and it's good business to offer solutions. Therefore, businesses are now joining the green revolution by designing products that are environmentally kind, dropping those that are not, offering products that have been manufactured using recycled materials, and by spending considerable money and effort in complying with governmental laws and regulations (Kirkpatrick). A third modifying factor has been the change in the composition of the environmental movement. Environmentalism is no longer viewed as belonging to the domain of an elitist special interest group. Today, activists include everyone from CEO's to housewives. In addition, activist activity has changed from a regulatory enforcement approach to a market-based incentive approach.

Recognition of the need to support environmental issues by the American public has grown dramatically over the last few years. In 1981, only 45 percent of Americans included in a New York Times/CBS News poll supported strenuous environmental improvements regardless of cost (Kirpatrick). In 1989, that figure jumped to 79 percent. This change in attitude reflects a growing grass-roots interest in supporting environmental activities such as recycling. This shift in public opinion has led many communities to set up curbside recycling programs. In fact, curbside recycling programs in the U.S. has grown from 1,042 in 1988 to 1,518 or by 46 percent in one year (Belsie). This growth pattern is expected to continue as more small to medium sized towns introduce curbside recycling programs (Jensen).

Purpose

Recently a medium sized community located in the Southeast United States has introduced curbside recycling on a limited basis. This program is being test marketed in neighborhoods of varying demographic dimensions and to-date appears to be successful. As a result, this community is interested in sustaining as well as expanding this program. In order to achieve this, effective marketing strategies must be devised based on an understanding of the demographic and behavioral characteristics of the marketplace. Therefore, the objective of this paper is to: 1) profile the individuals currently involved in the curbside recycling effort versus those who do not recycle and to identify media sources that would be effective in reaching both groups; and 2) to profile recyclers based on usage level, to examine the types of products recycled, and to examine recyclers commitment to purchasing products packaged in recycled materials.

Methodology

Questionnaire Design

Information concerning recycling issues and concerns were generated from a number of personal interviews undertaken for that purpose. A preliminary questionnaire designed for telephone administration was tested in a small pilot study consisting of 30 randomly dialed telephone interviews. Based on the results of the pilot study, the questionnaire's length and style was refined in order to facilitate data collection.

Sample Design

Recently, a metropolitan area located in the Southeast United States consisting of approximately 177,000 households has introduced curbside recycling. Given the purpose of the study is to examine recyclers and non-recyclers, all households with a telephone were considered to be part of the population. Random digit dialing, which combined a randomly selected local prefix with a randomly generated, four-digit suffix, was used to select households to be interviewed. A major advantage of this method is that it includes individuals with unlisted numbers as well as numbers not yet included in the directory.

A sample size of 120 was chosen. This sample size ensures an allowable error of +-9 percent with a 95 percent confidence interval. In order to provide 120 usable responses, a total of 500 numbers were generated for use in the study. This large number allowed for the deletion of unusable numbers due to refusals, not-at-homes, unassigned numbers, and businesses.

Telephone Survey

The questionnaires were administered over a three week period during the early evening hours. Eligible respondents were considered to be the primary grocery purchaser in the household. It was believed that person would most likely be responsible for any household recycling efforts plus would be in a position to buy products that are environmentally friendly. If that person was not available, he/she was called again at a different time. Additionally, each unanswered phone was called back three times before the number was replaced. Four hundred forty-one telephone calls were made and this resulted in the following breakdown: 27 percent responded; 44 percent were disconnected numbers; 18 percent did not answer; 5 percent refused to answer the questionnaire; and, 5 percent were business numbers.

Findings

Demographic Profile of Recyclers Versus Non-Recyclers

Table I presents the demographic characteristics of the two groups included in this study. With the exception of educational level, no statistically significant differences were found between recyclers versus non-recyclers. Though not statistically significant, certain descriptive results were noted. Specifically, recyclers were more likely to have three or more household members (48 or 58 percent) versus the non-recyclers who were more likely to have a two member household (17 or 50 percent). In terms of age, observed and expected frequencies were fairly similar although those in the 31-40 age group (24 or 29 percent) were more likely to recycle and those in the 41-55 age range (10 or 29 percent) were less likely. In terms of marital status and income level 51 or 62 percent of the recyclers are married and 40 or 55 percent have income levels of $30,000 and above where 17 or 50 percent of the non-recyclers are single and 21 or 68 percent earn less than $30,000. Thirty-four or 45 percent of the recyclers have earned at least a college degree while 13 or 39 percent of the non-recyclers had earned a high school degree or less. This finding was statistically significant at the p = .05 level. Finally, the majority of both groups (65 or 78 percent recyclers and 24 or 69 percent non-recyclers) were predominantly female. This reflects the fact that eligible respondents to the questionnaire were the primary grocery purchaser for the household.

Media Sources for Recyclers Versus Non-Recyclers

Both groups were asked three questions relating to media sources used to acquire news and information. The first question pertained to the identification of the most important medium for obtaining news and information in general. Forty-four or 53 percent of the recyclers indicated the newspaper and 20 or 57 percent of non-recyclers specified television. When asked which medium they received the most information about recycling and environmental issues, 31 or 38 percent of the recyclers responded newspaper although 29 or 36 percent of this group indicated television. Fifteen or 47 percent of the non-recycler group believed that television was the best source. Finally, the third question pertained to the respondents perception of the best source for disseminating recycling information. Both groups (ie. 37 or 45 percent of the recyclers and 17 or 49 percent of the non-recyclers believed that television is the best medium. The results from these questions can be found in **Tables II**, **III**, and **IV** and no statistically significant differences were found between groups for any question.

TABLE I
DEMOGRAPHIC PROFILE OF RECYCLERS VERSUS NON-RECYCLERS
(EXPECTED FREQUENCIES IN PARENTHESES)

	Recyclers	Non-Recyclers
Number of People in Household		
One	10 (9.2)	3 (3.8)
Two	25 (29.8)	17 (12.2)
Three	22 (19.9)	6 (8.1)
Four or More	26 (24.1)	8 (9.9)
	χ^2 = 4.18	p = 0.24
Age		
Under 25	15 (14.9)	6 (6.1)
25-30	16 (17.0)	8 (7.0)
31-40	24 (21.3)	6 (8.7)
41-55	16 (18.4)	10 (7.6)
Over 55	12 (11.4)	4 (4.6)
	χ^2 = 2.65	p = 0.62
Marital Status		
Married	51 (48.2)	17 (19.8)
Single	32 (34.8)	17 (14.2)
	χ^2 = 1.30	p = 0.25
Income Level		
Less than $30,000	33 (37.9)	21 (16.1)
$30,000 - $45,000	17 (16.8)	7 (7.2)
$45,000 - $60,000	16 (13.3)	3 (5.7)
More than $60,000	7 (4.9)	0 (2.1)
	χ_2 = 6.89	p = 0.08
Educational Level		
High School Degree or Less	15 (19.9)	13 (8.1)
Some College	15 (16.3)	8 (6.7)
Two Year Degree	17 (14.9)	4 (6.1)
College Graduate or Higher	34 (29.8)	8 (12.2)
	χ^2 = 7.54	p = 0.05
Sex		
Male	18 (20.4)	11 (8.6)
Female	65 (62.6)	24 (26.4)
	χ^2 = 1.26	p = 0.26

TABLE II
MOST IMPORTANT MEDIUM FOR NEWS AND INFORMATION FOR RECYCLERS VERSUS NON-RECYCLERS
(EXPECTED FREQUENCIES IN PARENTHESES)

	Newspaper	Radio	Television
Recyclers	44 (38.7)	4 (5.6)	35 (38.7)
Non-Recyclers	11 (16.3)	4 (2.4)	20 (16.3)
	χ^2 = 5.23	p = 0.07	

Demographic Profile of Heavy Versus Light Recyclers

Recyclers participating in a curbside recycling program were divided into two groups. Heavy recyclers were identified as individuals who recycle weekly and the light recyclers were classified as those individuals using the recycling program every two weeks or less.

TABLE III
MEDIA MOST RESPONSIBLE FOR RECYCLING INFORMATION FOR RECYCLERS VERSUS NON-RECYCLERS
(EXPECTED FREQUENCIES IN PARENTHESES)

	Newspaper	Magazine	Television	Other
Recyclers	31 (28.7)	6 (7.9)	29 (31.5)	15 (12.9)
Non-Recyclers	9 (11.3)	5 (3.1)	15 (12.5)	3 (5.1)

$\chi^2 = 4.18$ $p = 0.24$

TABLE IV
MEDIA PERCEIVED BEST FOR RECYCLING INFORMATION FOR RECYCLERS VERSUS NON-RECYCLERS
(EXPECTED FREQUENCIES IN PARENTHESES)

	Television	Newspaper	Other
Recyclers	37 (38.0)	22 (21.1)	24 (23.9)
Non-Recyclers	17 (16.0)	8 (8.9)	10 (10.1)

$\chi^2 = 0.22$ $p = 0.90$

While one might argue that differences in the frequency of recycling could be a function of household size, that was not found to be the case as no statistically significant differences were found between heavy versus light recyclers in terms of number of people in the household. (See **Table V.**)

TABLE V
DEMOGRAPHIC PROFILE OF HEAVY VERSUS LIGHT PROGRAM
(EXPECTED FREQUENCIES IN PARENTHESES)

	Heavy Recyclers	Light Recyclers
Number of People in Household		
One	2 (2.6)	2 (1.4)
Two	10 (9.2)	4 (4.8)
Three	12 (9.8)	3 (5.2)
Four or More	10 (12.4)	9 (6.6)
	$\chi^2 = 3.43$	$p = 0.33$
Age		
Under 25	6 (3.9)	0 (2.1)
25-30	5 (4.6)	2 (2.4)
31-40	9 (11.1)	8 (5.9)
41-55	12 (8.5)	1 (4.5)
Over 55	2 (5.9)	7 (3.1)
	$\chi^2 = 16.02$	$p = 0.003$
Marital Status		
Married	23 (22.9)	12 (12.1)
Single	11 (11.1)	6 (5.9)
	$\chi^2 = 0.01$	$p = 0.94$
Income Level		
Less than $30,000	12 (12.0)	6 (6.0)
$30,000 - $45,000	5 (7.3)	6 (3.7)
$45,000 - $60,000	9 (8.7)	4 (4.3)
More than $60,000	6 (4.0)	0 (2.0)
	$\chi^2 = 5.27$	$p = 0.15$
Educational Level		
High School Degree or Less	5 (5.2)	3 (2.8)
Some College	6 (5.9)	3 (3.1)
Two Year Degree	6 (6.5)	4 (3.5)
College Graduate or Higher	17 (16.3)	8 (8.7)
	$\chi^2 = 0.24$	$p = 0.97$
Sex		
Male	7 (7.2)	4 (3.8)
Female	27 (26.8)	14 (14.2)
	$\chi^2 = 0.02$	$p = 0.89$

Therefore, the frequency of the recycling effort was attributed to the degree of commitment individuals have to this particular recycling program. In examining age differences between the two groups, heavy recyclers tended to be under 30 (11 or 32 percent) or between the ages of 41-55 (12 or 35 percent). The light recyclers were more prone to fall into the 31-40 age category (8 or 44 percent). This suggests that the age group most likely to have small children are less likely to have the time to commit to the recycling effort. The age differences between the two groups was statistically significant at the $p = .003$ level. No statistically significant differences were found between heavy and light recyclers when the other demographic characteristics included in this study were considered.

Materials Recycled

Recyclers were asked about the types of material (i.e. newspaper, glass, plastic, and aluminum) they recycled. Results from this question can be found in **Table VI.**

TABLE VI
MATERIALS RECYCLED BY HEAVY VERSUS LIGHT PARTICIPANTS IN RECYCLING PROGRAM
(EXPECTED FREQUENCIES IN PARENTHESES)

	Newspaper	Glass	Plastic	Aluminum
Heavy Recycler	34 (35.1)	24 (24.1)	27 (26.8)	25 (24.1)
Light Recycler	17 (15.7)	11 (10.9)	12 (12.2)	10 (10.9)

$\chi^2 = 0.22$ $p = 0.97$

Differences between the heavy and light recyclers were few. The material most frequently recycled by both groups was newspaper followed by plastic. It is interesting to note that aluminum was the next to the least often recycled material recycled by the heavy recycler and the least often recycled material by the light group. This is surprising given the large consumption of soft drink products packaged in aluminum cans. Furthermore, many organizations have instituted aluminum can recycling programs (i.e. schools, businesses including airlines, etc.) so the recycling efforts of this material is more extensive and thus it is easier to recycle this material. Moreover, it is somewhat ironic that the only recyclable material that has not had a decline in price is aluminum.

Importance of Recycled Packaging

Responses to a series of questions concerning recycled packaging can be found in **Table VII.**

When given a choice of purchasing a similar product at the same price with the only difference being that one was packaged in recycled material and one was not, 21 or 68 percent of the heavy recyclers indicated a preference for the product in the recycled package and 15 or 94 percent of the light recyclers indicated the same preference. The difference between the two groups was statistically significant at the $p = .05$ level. When a similar question was asked suggesting similar products but adding that the

TABLE VII
IMPORTANCE OF RECYCLED PACKAGING
TO HEAVY VERSUS LIGHT PARTICIPANTS
IN RECYCLING PROGRAM
(EXPECTED FREQUENCIES IN PARENTHESES)

	Heavy	Light
If you could purchase one of two products that were physically alike and had the same price, but one used recycled packaging, would the recycled packaging affect your purchase?		
Yes	21 (23.7)	15 (12.3)
No	10 (7.3)	1 (3.7)
	χ^2 = 3.98	p = 0.05
If there were two like products, one using recycled packaging but slightly higher in price, and the other not using recycled products and a lower price, which product would you be more likely to purchase?		
Product Using Recycled Packaging	13 (15.3)	11 (8.7)
Less Expensive Item	15 (12.7)	5 (7.3)
	χ^2 = 2.05	p = 0.15
When you are shopping, how likely are you to seek out products that use recycled materials in the packaging?		
Very or Somewhat Likely	22 (22.6)	13 (12.4)
Indifferent	5 (3.9)	1 (2.1)
Very or Somewhat Unlikely	6 (6.5)	4 (3.5)
	χ^2 = 1.06	p = 0.59
How would you say you feel toward companies that use recycled materials in their packaging?		
Positive	31 (31.7)	18 (17.3)
Indifferent	2 (1.3)	0 (0.7)
	χ^2 = 1.14	p = 0.29
Do you currently return paper and/or plastic grocery bags to the store for recycling?		
Yes	12 (10.5)	4 (5.5)
No	22 (23.5)	14 (12.5)
	χ^2 = 0.94	p = 0.33

product in the recycled package now was more expensive, 15 or 54 percent of the heavy recyclers expressed a preference for the less expensive item and 11 or 69 percent of the light recyclers were willing to pay more for a product in a recycled package. When asked about the likelihood of seeking out products that use recycled material in packaging, 22 or 66 percent of the heavy recyclers and 13 or 72 percent of the light recyclers indicated they were very to somewhat likely. Thirty-one or 94 percent of the heavy recyclers and 18 or 100 percent of the light recyclers had a positive feeling toward companies that use recycled material in packaging. Finally, each group was asked if they currently return paper and/or plastic bags to the grocery store for recycling and 22 or 65 percent of heavy recyclers and 14 or 78 percent of the light recyclers indicated they did not undertake this additional recycling effort.

Discussion and Conclusions

While most researchers would lament the fact that few statistically significant differences were found in this study, that is not the case in this situation. The implications of finding few statistically significant differences between individuals participating in the recycling program and those not currently participating suggest that the community may be able to use an undifferentiated approach to expand its curbside recycling program. If potential participants are relatively homogeneous, an undifferentiated approach may meet users needs without adding additional costs to an already expensive program. Further, given both groups believe the best source of information about recycling and environmental issues is television, public service announcements can be run that appeal to community pride and environmental responsiveness, thus keeping people interested and committed.

Demographically, heavy versus light recyclers are very similar. Both groups tend to be well educated married females with incomes of less than $30,000. However, those classified as heavy recyclers are either less committed to recycling in general or view recycling efforts and purchasing products packaged in recycled materials as being two separate issues given that their involvement in a formalized recycling program does not appear to extend to additional recycling efforts. For example, both groups feel positively about companies that use recycled materials in packaging yet the heavy recyclers are less likely to seek out products in recycled packaging particularly if that product is more expensive. Unfortunately, this may exacerbate the problem of the declining prices of recycled waste materials due to oversupply. Furthermore, the heavy recycler's involvement in the formalized recycling program may reflect not so much a commitment to the environment in general, but rather a reaction to a certain amount of peer pressure. The recycling bins used in the program are bright red and on pickup days it is obvious who is participating in the program and how often. People are concerned about what their neighbors think and certainly do not wish to appear to be uncaring of the environment. This group must be monitored to ensure that they do not eventually lose interest. Further, since this group may be responding to peer pressure, strategies can be devised which ensures that neighborhood leaders are active in and supportive of curbside recycling.

While this study is useful in profiling individuals who recycle versus those who do not, it is only a first step. More research is needed that includes a larger data base, and additional attitudinal and life-style dimensions. Furthermore, longitudinal data should be collected to determine if any shift in profile characteristics occurs over time. This is vital given that Americans typically have short term attention spans. Finally, caution must be used in generalizing the results of this study to other recycling programs around the country.

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DIFFERENTIATION IN BUSINESS AND ECONOMICS

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Abstract

The interpretation of published research involving differentiation is frequently complicated and impeded by the variety of definitions of the concept in use across disciplines. This paper examines differentiation from multiple perspectives offered in the economics and business literatures, with two objectives in view. A central objective is to delineate four main paradigms of differentiation, attending to their similarities and differences. The second is to identify linking concepts which tie the separate perspectives into an integrated network. The integrated perspective raises important questions regarding concept development, measurement and domain of application.

Introduction

Everyone knows what differentiation is: the concept is so intuitive and so straightforward as to represent a seemingly simple phenomena. The problem here, of course, is that there is no good agreement on just what this simple phenomena is, or how best to define it, or how best to measure it. This situation may lead to the conclusion that differentiation is not a simple thing at all, but instead represents a rather complex phenomenon.

Indeed the usage in microeconomics is sufficiently distinct from that in marketing strategy as to suggest that entirely different phenomena are under discussion. However, the concepts of differentiation as used in the several business and economic disciplines do appear to spring from a common root or, at least, to have a substantial interrelatedness of meaning.

This paper comprises a multi-faceted overview of differentiation as a concept and as a research tool relating to both markets and marketing. Our purpose is not to advocate any particular viewpoint or theory, but to illustrate the variety of such viewpoints and theories in current use and to discuss the potential for linking concepts which tie the separate perspectives into an integrated network.

Basic perspectives are drawn from four literatures: neoclassical microeconomics, marketing management, strategic management, and industrial organization economics. It is possible to view this set of four in either of two ways: as four separate paradigms or as four facets of an integrated network. The discussion below begins with the former position and works toward the latter.

Perspectives On Differentiation

The term differentiation has been used variously to describe a condition of demand (as in differentiated demand), a characteristic of supply (as in product differentiation), a type of market structure (as in market differentiation) and a strategic policy (as in enterprise differentiation).

These four concepts appear to be clearly separable because they spring from separate literatures, but it is our contention that the use of "differentiation" in each perspective is no simple semantic coincidence. Specifically, we argue that the four are interrelated and, further, that the interrelationship is a result of strategic actions by competitors. Prior to these arguments however, it is necessary to delineate each of the four perspectives and examine their use in research.

Microeconomic Research

The seminal work of Chamberlin (1933) on monopolistic competition furnishes a definition of differentiated demand which stands as a chief paradigm of microeconomic theory to the present day. Prior to this development, however, was the widely influential work of Hotelling (1929) on spatial differentiation. This perspective, also known as horizontal differentiation, formulated the situation as commodity-like products with producers situated at differing geographic locations. Thus the differentiating factor was the cost of delivery to dispersed customers. Subsequently this concept has been generalized beyond a strictly spatial/geographic interpretation to include channels of distribution (Alderson 1948) and selected product attribute dimensions (Lancaster 1975).

Chamberlin's perspective, also known as vertical differentiation, has considerable face validity because it deals directly with differences in products, including perceptual or image differences. That is, Chamberlin was not directly concerned with spatial location but was concerned with differences in quality: "Qualitative differences lead to wide divergences in . . . demand curves, both as to shape (elasticity) and position (distance from X and Y axes)." Thus, observed market demands are nonhomogeneous across the set of consumers and producers enjoy a certain latitude in pricing decisions. Specifically, Chamberlin identified differentiation as the cause of monopolistic competition and further stated that the effective result of differentiation was downward sloping demand functions faced by individual producers: competing brands have positive, but finite, cross-elasticities (see also Triffin 1940)

Clearly the emphasis is on the demand side: monopolistic competition is called forth by heterogeneous demand. However, downward sloping demand curves for individual producers cannot occur under conditions of homogeneous supply. The intent here is not to belabor a familiar chicken-and-egg conundrum, but to emphasize two points.

First, the operationalization of Chamberlin's definition of differentiation requires that brand-level elasticities be measured, or at

least that some suitable proxy measure be identified. The second point is that specific characteristics of the product or its marketing need not enter directly into the definition. Indeed the definition represents a more-or-less technical (i.e., mathematical) assessment of the behaviors of buyers in a given market. Why they behave in a certain way is less important than quantifying the degree to which they do. Researchers in this area tend to distinguish between markets characterized by homogeneous vs. heterogeneous demand, that is, between the presence and absence of differentiation.

Marketing Management and Strategy

While the observation that economists are prone to analysis and marketers are given to action is plainly stereotypical, their perspectives on differentiation would hardly disprove it. Differentiated marketing is not defined or operationalized in a technical manner, as in the case of microeconomics, but rather is closely linked to marketing actions.

Indeed the definition is frequently implicit rather than explicit: the concept appears to be a "primitive" in marketing. The text book treatment of differentiation in marketing seems to imply that the alternative (viz., undifferentiated marketing) is uninteresting, unrealistic and/or unworthy of serious discussion. In his analysis of trends in marketing thought, Grether (1988) notes an almost complete absence of attention to commodity markets among marketing scholars.

The pervasive nature of differentiation in marketing thought is well illustrated by Levitt's (1980) statement: "In the marketplace, differentiation is everywhere. Everybody--producer, fabricator, seller, broker, agent, merchant--tries constantly to distinguish his offering from all others." Indeed the title of Levitt's article (Marketing Success Through Differentiation--of Anything) is genuinely reflective of the close connection between differentiation and competitive advantage which is widely held to be a fact of marketing (see also Henderson 1983). The action orientation was also apparent to Smith (1956), who defined differentiation as an attempt to favorably shift the slope of the demand curve for the individual producer.

In line with the preceding discussion, one would not expect considerable attention to or interest in distinguishing differentiated markets from undifferentiated markets. This is indeed the case: the concept of differentiation in marketing is generally sensitive to the degree of differentiation, not its presence or absence (e.g., Howard 1983). The measures employed are also sensitive to competitive considerations, frequently operationalizing differentiation by assessments of relative product quality (e.g. PIMS). Quality being a rather elusive construct, especially for consumer goods, the measures are commonly subjective, that is, determined by industry executives or customers, rather than by engineers or technical experts.

In sum, the marketing perspective on differentiation is action-oriented, supplier-based and frequently employs subjective measures. By contrast, the microeconomic perspective focuses on a technical feature of demands, is demand based and frequently employs objective or technical/engineering judgment measures of quality.

Industrial Organization

The branch of economics known as industrial organization (IO) adopts a more macro perspective by working at the level of industries, and deals with market differentiation. A key consideration in IO studies is market structure, and differentiation is frequently considered an important aspect of market structure.

In his seminal works in IO, Bain conceived of differentiation as having two facets or roles, being (1) a descriptor of market structure characteristics (1959), and (2) a barrier to the entry of new competition (1956). Bain (1959) chose to define differentiation in the negative rather than the positive, as ". . . an imperfection in the substitutability . . ." of competing offerings.

That is, a differentiated market was characteristically different from a commodity market and the key difference was lack of perfect substitutability.

Differentiation here means that leading producers in the market have pursued a policy of target marketing. The producers have consciously avoided competing in a commodity-like situation by targeting selected segments and emphasizing the preferability of their brands over competing brands. These producers are assumed to be cognizant of the prospect of collectively lower profits under undifferentiated marketing and to have chosen differentiated marketing as a rational alternative.

Up to this point, the IO perspective represents little more than the collective outcome of decisions made by individual producers--widespread differentiated marketing yields market differentiation. All that has been added is the presumption (or suspicion) that the decisions of individual firms may not have been made independently of other firms.

Differentiation in IO, however, is held to have a much more profound and less benign influence on market conduct than would be suggested by the above. Specifically, differentiation is believed to result in substantial barriers to entry (Bain 1956; Shepard 1979; Scherer 1980). Markets characterized by differentiation are thought to be significantly more difficult for entrants to gain a foothold than undifferentiated markets. Inhibition of successful entry by new competitors is thus linked with the potential for excessive prices and profits. For this reason, serious questions of social welfare and public policy are introduced in connection with market differentiation.

Strategic Management

Lastly, the concept of enterprise differentiation has been applied to organizations. Here,

the point is to distinguish those organizations which, as a whole, have been adapted to the purpose of implementing a differentiation strategy. That is, enterprise differentiation is seen as a strategy which has direct and positive implications for competitive advantage (Porter 1985; Chandler 1962). The enterprise differentiation concept also appears in the marketing literature as a combination of product and service offering plus distinctive marketing policies (e.g. Alderson 1965, attributed to Grether; Day and Wensley 1988).

Clearly the tasks required of an organization pursuing an undifferentiated product strategy are not identical with those required to execute a differentiated product strategy. Further, because the bases for differentiation of a product (or a service) are manifold, the set of tasks among differentiated firms may also vary considerably. For this reason the possibility of specialization in organizational structure exists and is, in fact, carried out in many cases.

This point is not infrequently lost on some readers of Porter's (1980) generic strategy framework, who assume that the differentiation option is strictly equivalent to product differentiation. Porter, however, observes, that a commitment to differentiation implies a commitment to specific ". . . organizational arrangements, control procedures, and inventive systems."

An Integration of Perspectives

As outlined in Section 2, the four perspectives (differentiated demand, differentiated marketing, market differentiation and enterprise differentiation) appear to have little enough in common. Specifically, the four may differ as to conceptual focus and unit of analysis. This section advances the notion that these perspectives become connected under competitive pressures, to the point of becoming integrated in the attainment of competitive advantage.

The perspectives on differentiation outlined above may be broadly classified as conditions; i.e., a condition of demand, a condition of competing products, a condition of market structure, or a condition of organization, respectively. Linking these four conditions are three responses or activities of a strategic nature: segmentation, sales promotion and organizational adaptation. Motivating the linkages is competitive advantage; mediating the linkages is information.

Segmentation

Contrary to conventional wisdom, differentiated marketing is not a necessary outcome of differentiated demand. As Dickson and Ginter (1987) point out, undifferentiated marketing represents one possible stable competitive equilibrium in a market characterized by heterogeneous demands. However, when one of the competitors switches to a differentiated approach, undifferentiated marketing becomes a suboptimal strategy for the remaining competitors. Thus the alternate stable competitive equilibrium is not a mixed regime, but one in which all viable competitors seek differential advantage.

P_1: Differentiated demand is linked to differentiated marketing by the segmentation activities of sellers, as a competitive strategy.

While the micro-economic literature recognizes individual differences in taste and suggests that groupings of individuals with similar tastes may exist, the composition of such groups is generally not addressed. The process of segmentation connects cross-elasticity with target marketing by focusing on the process of identification of groups having similar tastes, and the analysis of the characteristics of these groups (Day, et. al. 1979).

Thus target marketing (differentiated marketing) requires not only the presence of differentiated demand, but also the identification of a suitable group of customers whose particular preference set is well matched with the intended offering. According to Alderson (1965), the process of selecting certain customers is, in and of itself, the simplest form of differentiation.

Promotion

The close connection between advertising and product differentiation cannot be overemphasized. Indeed, for many researchers, advertising is the sine qua non of differentiation. (An index listing in Alderson's 1965 book is by no means atypical: "Product Differentiation; see also Advertising.") This section is about linkages and most readers will be familiar with a controversy of substantial duration concerning the effects of advertising on individuals: information vs. persuasion (or market power).

While recognizing that this linkage constitutes significant issue, it is not our intention to expand on the area further for two reasons. First, the arguments and counterarguments have been adequately developed and summarized elsewhere (eg. Scherer 1980; Comanor and Wilson 1979; Farris and Albion 1979). Second, the information vs. persuasion issue does not depend strongly on the differentiation concept per se, but is more directly centered on the cognitive and/or affective outcomes of commercial communications.

Instead of the information/persuasion controversy, we examine the aggregate effects of advertising on other firms.

P_2: Differentiated marketing is linked to market differentiation by the promotional activities of producers.

Advertising is clearly a means of communicating with target markets, however, potential confusion with regard to advertising may arise in part from the multifaceted role which advertising is held to play by various researchers (e.g. Chamberlin 1933; Clark 1961). For this reason, Commanor and Wilson (1967) state that

advertising is both a symptom and a source of differentiation: it is viewed as a cause and as an effect simultaneously.

Advertising (or, more generally, promotion) appears to be a logical means of implementing a target marketing strategy. However, Alderson (1965) furnishes a more theoretical basis for advertising by emphasizing informational requirements in non-homogeneous markets. Alderson states that while homogeneous markets are cleared by price, heterogeneous markets are cleared by matching sets of information. Hence, according to Alderson, the provision of non-price information is a structural requirement for heterogeneous markets to function properly.

A linkage between competitive marketing and issues pertaining to industrial organization is the entry barrier generated by advertising. The existence of differentiation may exercise an inhibitory effect on potential entrants to the supply side of the market: a barrier to the entry of new competitors (e.g. Spence 1980; Karakaya and Stahl 1989). In fact, Bain's (1956) seminal work on barriers positioned differentiation as the most substantial class of barriers (the others being cost advantages and scale economies). While the sources of differentiation barriers are numerous, many analyses focus on the role of advertising in erecting and maintaining the barrier.

Overall, competition appears to require some minimum amount of promotion in support of differentiated marketing strategies. The aggregate effect of promotion and differentiated marketing affects market structure and also erects barriers to new competitive entry. Intense rivalry changes the rules of the competitive game, making the search for competitive advantage a crucial undertaking.

Adaptation

P_3: Market differentiation is linked to enterprise differentiation by the adaptive strategies of producers.

In enterprise differentiation, the issue is not simply the adoption of a differentiated marketing strategy, but rather the adaptation of organizational structure in order to implement this competitive strategy. This perspective on differentiation has a strong ecological flavor: adaptation, specialization and efficiency are important considerations here. Like the market differentiation concept, enterprise differentiation is clearly a result of other, foregoing, activities and in both cases the stimulus seems to be connected with differentiated marketing and competition.

A linkage between the differentiated market structure and enterprise differentiation is provided by the concept of structural adaptation. Specifically, firms facing a differentiated market structure should tend to select a compatible corporate strategy (superordinate to functional marketing activities) and further would tend to modify its organizational structure in order to more effectively implement this strategy (Chandler 1962; Thorelli 1977).

As suggested above, intensity of competition is expected to influence the likelihood of organizational adaptation, both in terms of speed of adjustment and degree of differentiation. Indeed, high levels of competitive intensity are associated with the growth and proliferation of certain organizational types and the demise of other, less well suited organizations (Hannan and Freeman 1977; Lambkin and Day 1989).

In addition to the question of competitive intensity is the issue of market stability. Miller (1988) notes that differentiation is more likely under conditions of environmental uncertainty and instability, both of which may result from competitor's initiatives.

Summary

Clearly the propositions identified here do not exhaust all possible relationships among the four perspectives on differentiation; indeed a rich network of interrelationships and interactions may exist. The purpose here is instead to demonstrate that the four differentiation paradigms are not isolated from one another. The propositions suggest that various aspects of differentiation become closely interconnected under conditions of intense competitive pressure. Thus the closeness or looseness of the interconnection between the four perspectives is moderated by the level of competitive intensity. Such a moderating role for competition is also thought to obtain in other areas of organizational response (e.g., see Robertson and Gatignon 1986 for competitive influence on diffusion rates).

In this light, the distinctions among the four perspectives of differentiation (demand, marketing, markets and enterprise) may be seen as a matter of specialized focus, and may be considered separate constructs under conditions of low competitive pressure. The more intense the competition, the closer the coupling between differentiated demand, differentiated marketing, and enterprise differentiation. Thus marketing strategy mediates an isomorphic relation between the structure of demands and the structure of organizations.

Conclusions

The four facets of differentiation appear to be connected by three activities: segmentation, promotion and adaptation. These three activities have common features in the sense that each activity is intensified by competition. In this sense, the four perspectives on differentiation are neither entirely separate nor entirely separable in most competitive markets.

Instead, they are linked by actions taken at the functional marketing level (segmentation and promotion) as well as actions taken at the policy level (adaptation).

Overall, the situation may best be seen within an ecological framework. Here, differentiated demand represents a particular configuration of resources. Differentiated marketing represents a strategy by individual firms in competing for scarce resources. Market differentiation represents the joint outcome of and setting for competition. Enterprise differentiation represents a survival strategy by individual firms; a way of competing for resources more effectively.

That is, segmentation and promotion activities are key aspects of implementing a differentiated marketing strategy, because they provide the appropriate basis for differentiation. Adaptation, of course, plays a familiar role in ecological models.

Future Research

Two areas of further research are suggested by the preceding analyses and discussions.

First, how should differentiation be conceptualized? Clearly this question cannot be answered in isolation from particular theoretical frameworks and research questions, but some areas for development may be identified.

One problematic area is the meaning of difference. Differentiation has been used to describe situations where the differences in question range from the barely perceptible to the scarcely substitutable. It may be that a single concept does not adequately represent the buying or selling of both close and distant substitutes. Another key issue is whether, and to what extent, the differentiation concept is separable from concepts such as preference or worth or value, especially in a marketing context. Even if two products are acknowledged to be different from one another, are they really differentiated if the customer doesn't care about the points of difference?

Second, how well does differentiation work in other economic settings? Lesser developed and/or non-Western economies may present features which affect the "normal" operation of differentiation. Specifically, small scale demand and limited competition may result in substantial economic advantages to standardization, rather than differentiation. Economic developments in eastern Europe may provide some insights into the robustness of our current thinking on differentiation. Also, cultural differences may produce preferences for uniformity and conformity, rather than distinctiveness. Thus, some non-Western economies may view differentiation as socially undesirable as well as economically inefficient.

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TESTING THE RELIABILITY AND VALIDITY OF BELK'S AND RICHINS' MATERIALISM SCALES

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Abstract

A Study was conducted to ascertain the reliability and validity of two key measures of materialism, the Belk's (1985) scale and the Richins' (1987) scale. Both Belk's and Richins scale showed evidence of convergence, and both showed evidence of nomological validity by correlating negatively with life satisfaction measures.

Introduction

Until recently, there has been little empirical work in consumer research (or any other discipline) on the effects of materialism, the idea that material possessions are somehow associated with satisfaction or happiness in life, on society. The importance of the topic of materialism can be seen in that Belk's (1985) seminal research piece on the subject is one of the most cited articles from the Journal of Consumer Research (Cote, Leong, and Cote 1991).

Belk has fueled most of the work on materialism in consumer research. He defined materialism as the tendency for possessions to "assume a central place in a person's life and are believed to provide the greatest sources of satisfaction and dissatisfaction in life" (Belk 1984, p. 291). Belk developed a scale that measures three personality traits (envy, possessiveness, and nongenerosity), from which he infers materialism.

Belk's efforts were followed by Richins and colleagues, who used Belk's definition of materialism but rejected his notion that materialism is a personality trait, viewing it instead as a value (Fournier and Richins 1991; Richins 1987; Richins and Dawson 1990). Despite differences in operationalizing materialism, several studies using the Belk and Richins materialism scales have established a negative correlation between materialism and life satisfaction (Belk 1984, 1985; Dawson and Bamossy 1990, 1991; Richins 1987). However, no instrument exists whose validity and reliability have been clearly demonstrated in this area of research (Wright 1991). The development of materialism scales is fraught with problems.

This paper reports a study examining two of the scales which have been used to measure materialism. The study looks at how these scales stand up to tests of reliability, construct validity, convergent validity, and nomological validity. Both the Richins (1987) and Belk (1985) materialism scales are hypothesized to be negatively correlated with measures of life satisfaction and to positively correlate with each other.

Materialism And Life Dissatisfaction

Life dissatisfaction occurs when consumers have unrealisticly high expectations about how their possessions will make them happy. Inevitably, their high expectations are not met and they become dissatisfied. Several theories provide a conceptual rational for this relationship.

Belk was influenced by Sartre (1943) in his conceptualization of materialism. Sartre proposes that people can only find happiness by accepting themselves, their identities, and who they are. Sartre proposes that happiness cannot be found in possessions. Hence, Belk (1985) predicted a negative relationship between possessions and happiness.

Richins (1987) suggests adaptation-level theory explains the negative correlation between materialism and life satisfaction. Adaptation level-theory proposes that people adapt to a certain level of comfort or satisfaction. Eventually, the expectation level of a person's state should rise, creating a gap between state and expectation, which leads to dissatisfaction.

Five empirical studies have examined the relationship between materialism and life satisfaction (Belk, 1984, 1985; Richins, 1987; and Dawson and Bamossey 1990, 1991), and all showed negative correlations between materialism and some measure of life satisfaction. Wright (1991) determined that the average effect size of this relationship was r=-0.30.

Measures of Materialism

As mentioned above, most of the published materialism studies used the Belk or Richins scales. Below is a discussion of the procedures used to test the reliability and validity of each scale.

Belk's (1985) Materialism Scale

Belk conceptualized materialism as a personality trait, and developed measures to infer materialism from three traits: envy, possessiveness, and nongenerosity (Belk 1984, 1985). Examples of measures of possessiveness include "Renting or leasing a car is more appealing to me than owning one," (negatively phrased) and "I tend to hang on to things I should probably throw out." Examples of items

measuring nongenerosity include "I enjoy having guests stay in my home," and "I enjoy sharing what I have" (both are negatively phrased). Examples of items measuring envy include "I am bothered when I see people who buy anything they want," and "I don't know anyone whose spouse or steady date I would like to have as my own" (negatively phrased).

Belk reported Cronbach alpha coefficients varying from 0.66 to 0.73 involving the entire scale (a composite of envy, possessiveness, and nongenerosity). The subscales were moderately and significantly intercorrelated (0.25 to 0.35). Belk conducted a factor analysis which confirmed the structure of the materialism scale involving possessiveness, nongenerosity and envy. The scale was significantly and negatively correlated with Gurin, Veroff and Feld's (1960) measure of happiness ($r = -.26$, $p < .001$, $n = 338$) and Bradburn and Caplovitz's (1965) measure of satisfaction in life ($r = -.24$, $p < .001$, $n = 338$). In addition, the results of a related study concerning the patterns of materialism across three generation groups produced nomological validity for the materialism measure.

Subsequent studies using the Belk scale (or one of the subtraits) either didn't report reliability (e.g., Belk 1989) or reported generally low reliability coefficients (e.g., Rudmin 1990; Dawson and Bamossy 1990). Other than Belk (1985), no data on the validity of measures was provided.

Richins' (1987) Materialism Scale

Richins (1987) accepted Belk's definition of materialism, but viewed it as a value, not as a personality trait. Her scale measures materialism directly. Using a sample size of 252, factor analysis produced two distinct factors, the first measuring personal happiness, and the second reflecting a general belief that money can bring happiness. The correlation between the two factors was .32, but she didn't indicate if this was significant. Alpha coefficient for the first factor was .73, and .61 for the second. Only limited validity assessment was included (the relationship between materialism and life satisfaction was, as hypothesized, negatively correlated and significant).

Method

Sampling

A mail survey was conducted using a consumer panel sample. Questionnaires were mailed to a survey research panel comprised of 542 households. The research panel is located in a "test market" city located in the Midwest. Two-hundred and fifty questionnaires were returned with 234 useable responses. The effective response rate was 43.1 percent.

The extent of non-response bias was examined through chi-square goodness-of-fit tests as reported in Table 1. Respondents were found to be representative of the population on the basis of age, and income ($p > .10$) but was disproportional on the basis of sex and education ($p < .10$). More males than females participated in the study. This may be an important factor since materialism studies have shown men to be more materialistic than women (Belk 198).

TABLE 1
STUDY DEMOGRAPHICS RELATIVE TO POPULATION DEMOGRAPHICS

		Study	Population	
Income:	Less than $10,000	13.3	15.5	
	$10,000-$19,999	18.0	19.2	Chi-square = 5.3697
	$20,000-$34,999	33.0	30.3	p > .25, df = 4
	$35,000-$49,999	22.7	29.7	
	Over $50,000	12.7	20.7	
Age:	18-30	15.5	18.2	
	31-40	21.9	27.3	Chi-square = 3.500
	41-50	19.3	19.7	p > .25, df = 4
	51-65	25.3	20.3	
	Over 65	18.0	14.6	
Sex:	Male	57.1	45.3	Chi-square = 5.620
	Female	42.9	54.7	p < .10, df = 1
Education:	> High School	06.0	08.8	
	High School Grad	28.9	23.6	Chi-square = 11.407
	Some College	23.6	27.9	p < .05, df = 4
	College Grad	21.0	19.9	
	Grad Work	20.6	10.9	

Measures of Materialism

Both Belk's (1985) Materialism Scale and Richin's (1987) Materialism Scale were employed in this study.

Measures of Life Satisfaction

Life satisfaction was operationalized using three measures: Andrews and Withey's (1976) Delighted-Terrible (D-T) Satisfaction Scale, Meadow et al.'s (1991) Congruity Life Satisfaction (CLS) Scale, and Kosenko, Sirgy and Efraty's (1989) Need Hierarchy (NEED) measure of Life Satisfaction.

The D-T measure reported temporal reliability of .66 for a 15-minute duration and .40 for a six-months duration in a different study (Stock et al 1982). Andrews and Withey (1976) reported high convergent validity with other self-report measures and nomological validity by providing empirical support for the relationships between life satisfaction and external variables such as self-efficacy, marriage, and standard of living. Other positive and strong evidence of the reliability and validity of the D-T measure was reported by Larsen, Emmons, and Diener (1983). The D-T measure is essentially a one question self-report measure with the response coded using a 9-point scale varying from "Delighted" (1) to "Terrible" (7), with two additional categories for "Neutral" and "I Never Thought About It."

The overall sample scored a mean of 2.863 with a standard deviation of 1.058, which suggests most of the sample respondents were "mostly satisfied" with their lives in general.

The CLS measure is based on the theoretical notion that life satisfaction is a function of a comparison between perceived life accomplishments and a set of evoked standards. These standards are classified as to their

derivative sources (e.g., the life accomplishments of relatives, friends, associates, past experiences, self-concepts of strengths and weaknesses, and average person in a similar position) and different forms (e.g., standards based on ideal, expected, deserved minimum tolerable, and predicted outcomes).

A 6-point scale was used to measure the 10 CLS items. Meadow et al. (1991) demonstrated construct validity of the measure through two studies in which life satisfaction related to (as predicted) various demographic and psychographic constructs.

The sample responses produced a mean of 4.509 with a standard deviation of.981, which, as with the D-T scale, suggests that most of the sample respondents were mostly satisfied. The results also show that the correlation between the D-T scale and the CLS measure was high and significant (r = -.717) attesting to the convergent validity of the two measures as had been demonstrated in the Meadow et al (1991) studies.

Kosenko, Sirgy and Efraty's (1989) NEED scale is a measure which is based upon Maslow's (1954) hierarchy of needs. As the lower-order (i.e, food and safety) are met, people will be able to meet higher-order needs such as feelings of belongingness or self esteem. Eventually the focus of the individual attaches to the highest need in the hierarchy, that of self-actualization.

The format of the NEED scale was based on Porter (1961) as used in an organizational setting. This format attempts to assess two aspects of each need simultaneously; the amount of the specific need or feeling that is present, and the amount of the same need or feeling that the respondent thinks should be present. The NEED scale consists of 11 items, each being assessed on a 7-point scale for both "How much there is", and "How much there should be". Kosenko et al (1989) report that the nomological validity of this type of measure was established by its use in major research (e.g., Hall, Schneider, and Nygren, 1971) and through personal communication Porter reported a temporal reliability of .8.

The sample responses produced a mean of 4.509 with a standard deviation of .981, which, as with the D-T scale, suggests that sample respondents were mostly satisfied. The results also show that the correlation between the D-T scale and the CLS measure was high and significant (r = -.717) attesting to the convergent validity of the two measures as had been demonstrated in the Meadow et al (1991) studies.

Questionnaire Design

The questionnaire used in this study was made up of 10 separate sections, each of which was designed to measure a specific construct. Sections not related to this study will not be discussed in this section. Meadow et al.'s (1991) CLS scale used first, followed by Andrews and Withey's (1976) Delighted-Terrible (D-T) scale and the NEED scale (Kosenko, Sirgy, and Efraty 1989). Next, the subjects responded to the Belk (1985) materialism scale, and then to the Richins (1987) materialism scale. Finally, the questionnaire concluded with a section of demographic questions.

Results

Factor Structure and Internal Consistency of the Belk Scale

In the present study, principal components factor analysis (with varimax, oblique, equamax, and oblimin) produced nine initial factors, accounting for 64.5 percent of the variance. However, none of the rotations worked. A factor analysis with a quartimax was successful in rotation producing nine factors accounting for 64.5 percent of the variance. The factor structure extracted did not resemble the three factor structure postulated (and empirically verified) by Belk's (1985) study. A Cronbach reliability analysis further confirmed the lack of internal consistency of the items pertaining to the three subconstructs of possessiveness, nongenerosity, and envy (alpha = 0.424, 0.298, and 0.571, respectively). The combined Cronbach Alpha was 0.544.

While the Alpha coefficient might lead one to question the
further use of the scale in this study, certain other characteristics of the scale suggested otherwise. Belk's materialism scale was found to correlate highly with Richins' (1987) materialism scale (r = 0.49; p <0.001; see Table 2).

TABLE 2
CONVERGENT VALIDITY
(SUBSCALES)

	Belk (Full)	Possess-iveness	Non-Generosity	Envy	Richins
Belk Scale (Full)	1.000				
Possessiveness	.549**	1.000			
Non-Generosity	.561**	-.091	1.000		
Envy	.779**	.090	.307**	1.000	
Richins Scale	.489**	.303**	.115	.463**	1.000

* Significant at the .05 level
** Significant at the .01 level

An average composite was formulated from all 24 items. The mean was 3.031 with a standard deviation of .328, indicating that most respondents were moderate in materialism.

Factor Structure and Internal Consistency of the Richin's Scale

The adaptation of Richin's (1987) Materialism scale involved seven self report items in which respondents were asked to agree or disagree. The response scale was a 5-point Likert scale varying from 1 ("Strongly Disagree") to 5 ("Strongly Agree").

A principal components factor analysis with oblique rotation was performed on the responses to these items. Oblique rotation was used because all of the items were expected to be highly inter-related. Two factors were

extracted accounting for 55 percent of the variance. Factor 1 involved items 2, 3, 4, 5,and 6, and accounted for 39 percent of the variance. Factor 2 involved items 1 and 7, accounting for 16 percent of the variance. At this stage, a decision was made to employ only those items loading on the factor accounting for the highest proportion of the variance (Factor 1) to ensure internal consistency of the materialism measure.

A Cronbach Alpha reliability conducted on the items loading on Factor 1 produced a coefficient of .80. The overall sample score a mean of 2.936 and a standard deviation of .704, which suggests that most respondents were moderately materialistic in orientation. The correlation between the two materialism measures was found to be .489, attesting to the convergent validity of the measures (see **Table 2**).

Convergent Validity of the Materialism Measures

Table 2 shows correlational results reflecting evidence of convergent validity between Belk's overall scale and Richin's scale. However, the same data suggest that convergence may be restricted to the envy and possibly the possessiveness subscales of the Belk's measure, not the nongenerosity subscale.

Nomological Test of the Materialism Measures

As previously discussed, nomological validation of the materialism measures can be ascertained through testing the relationship between materialism and life dissatisfaction. **Table 3** shows correlations between the materialism measures and the life dissatisfaction measures.

The results show the Belk's overall scale (as well as its Envy subscale) correlate the strongest (and in the expected direction) with the three measures of life satisfaction. The Richins scale was also found to correlate moderately (and as hypothesized) with the various measures of life satisfaction. These results provide some evidence of nomological validity of both materialism measures.

TABLE 3
NOMOLOGICAL VALIDITY

	CLS	D-T	NEED
Belk Scale (Full)	-.365**	-.348**	.374**
Possessiveness	-.061	-.099	.162*
Non-Generosity	-.184**	-.154*	.147
Envy	-.423**	-.382**	.374**
Richins Scale	-.317**	-.274**	.287**

* -Significant at the .05 level
** -Significant at the .01 level

CLS = Congruity Life Satisfaction Scale (Meadow, Mentzer, Rahtz & Sirgy, 1991)
D-T = Delighted-Terrible Satisfaction Scale (Andrews and Withey, 1976)
NEED = Need Hierarchy Measure of Life Satisfaction. (Kosenko, Sirgy and Efraty,1989)

Discussion

The above analysis is an attempt to show the reliability and validity of the Belk and Richins materialism scales. The Richins scale exceeds the .7 benchmark established by Nunally (1978), but the Belk scale falls well below .7. However, both scales exhibit convergent and nomological validity. Since Richins' (1987) scale measures materialism directly instead of inferring from related subconstructs, and since the scale demonstrated superior reliability, it should be given preference over the Belk (1985) scale in future materialism studies.

This study is important because it is only the second study to try to determine the reliability and validity of measures of materialism. Previously, only Belk (1985) made any serious attempt to follow standard psychometric procedures (Churchill 1979). Fournier and Richins (1991) maintain that the materialism construct is multidimensional in nature. Future measures of materialism should be expanded to more fully capture the multidimensional nature of the construct. For example, Hirschman (1990) studied extremely wealthy consumers, but concluded that their consumption, which was clearly conspicuous, extravagant, and beyond the means of most people, didn't fit with conventional definitions of materialism. Restricting the definition of materialism to finding happiness in possessions may only allow researchers to study a limited form of materialism.

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AN INDIRECT DETERMINISTIC CAUSAL SALES FORECASTING MODEL: ACCURACY, INFORMATION, CONDITIONAL EFFICIENCY, AND EFFECTIVENESS

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Abstract

This paper develops a general indirect deterministic causal model (IDC model) for durable equipment. After the general model is introduced, an application is presented which models the sales for underground piping systems in the Petroleum Marketing Industry.

It will be shown that the forecast of the IDC model leads to the correct investment decision. Also, the forecast of the IDC model will be compared to other time series forecasting methods (exponential smoothing and regression against time) for accuracy, information content, conditional efficiency, and effectiveness.

Causal Versus Time Series Models

A causal model explains observed market behavior by relating the observed behavior to functional variables and structure which generate the behavior. Bagozzi (1980) notes three factors which determine causal models: (1) phenomena to be explained (2) specific antecedent conditions, laws or mechanisms shaping the phenomena and (3) the orientation of the researcher's framework, such as positivist or realist. For this paper, we will focus on the second factor, the mechanisms shaping the phenomena and how these mechanisms can be mathematically modelled.

In the practical sense, causal marketing models have generally been regression or econometric. The regression model explains variations in a dependent variable (observed phenomena which we wish to explain) according to weighted changes (parameters) in independent variables. The econometric model is usually a simultaneous combination of single or multiple regression equations.

Geurts and Kelly (1986) have shown that econometric models do not perform as well as time series methods such as exponential smoothing or Box Jenkins. Other researchers (Bopp 1985: Clemen and Winkler 1986) have shown that simple methods perform well compared to econometric or regression models.

The disappointing results of causal models may indicate that the causal model did not incorporate important additional information compared to time series methods. In fact, the requirements that the data be available for most of the historical period and be tractable to the OLS framework may have led researchers to preclude important causal information that is too "messy" or too difficult to incorporate into the regression or econometric framework.

More importantly, the regression or econometric models may not have properly modelled the underlying mechanism of the phenomena which the models wished to explain. If the models do not include important causal variables and/or structure that produce the phenomena, it would not be surprising if such models performed poorly.

In the next section, a simple mathematical model of causal structure will be presented to forecast durable equipment sales in the Petroleum Marketing Industry. The model will be shown to have superior forecast accuracy compared to an exponential smoothing model and to a simple regression model. In addition, the model will be shown to be conditionally efficient, to include more information, particularly subjective information, and to have led to a successful business decision.

An IDC Model For The Petroleum Marketing Industry

As noted earlier, a causal model must specify the antecedent conditions, laws or mechanisms shaping the phenomena. In the case of durable equipment, one of the antecedent conditions is the amount or stock of that durable equipment already in use. Furthermore, one can observe that the quantity of stock changes over time according to the level of sales and removals (or discards) of that durable equipment.

The Petroleum Marketing Industry includes all activities associated with retail gasoline marketing. The industry includes retail gasoline marketers such as gas stations and convenience stores; manufacturers of pumps, underground storage tanks, piping systems, hoses, and other miscellaneous hardware; and suppliers of services including computer controllers and independent petroleum distributors.

Each retail outlet requires an underground piping system through which gasoline flows from underground storage tanks to the pump. The piping systems can be classified as either corrosion resistant or non corrosive. An example of corrosion resistant piping systems is galvanized steel (it will eventually rust). An example of non corrosive piping systems is fiberglass pipe (it will never rust). Both systems can be viewed as durable equipment.

Each retail gasoline outlet is considered to have one piping system. In the industry, retail gasoline outlets are referred to as PMO's (petroleum marketing outlets). A convenience store is considered a retail gasoline outlet if 50% or more of its sales arise from gasoline sales.

The model of the Petroleum Marketing Industry is

$$\Delta PMO_t = \Delta GS_t + \Delta CS_t = IS_t + R_t = IS_t + r_t\ PMO_t \quad (1)$$

where:

$\Delta PMO_t = PMO_t - PMO_{t-1}$ = change in PMO's in period t;

$\Delta GS_t = GS_t - GS_{t-1}$ = change is gas station outlets in period t;

$\Delta CS_t = CS_t - CS_{t-1}$ = change in convenience store outlets in period t:

IS_t = total industry sales of piping systems;

R_t = total removals;

r_t = removal rate;

S_t^i = sales of piping systems by company (i=c) or by non corrosion product (i=n).

and subject to:

$IS_t \geq 0$; total industry sales are not negative;

$IS_t \geq \Delta CS_t$; industry sales must be equal to or exceed a positive growth in stock;

$IS_t \geq S_t^n \geq S_t^c$; total industry sales must be equal to or greater than product sales (n), (e.g. non corrosive piping systems) or company sales (c);

$\min MS_t \leq S_t^i / (r_t PMO_t + \Delta PMO_t) \leq \max MS_t$; market share for company (i=c) or product (i=n) must be "reasonable".

There are several practical advantages to this approach. First of all, this mechanism should apply to all durable equipment. Second, most industries have reasonable knowledge of the level of stock through either government or trade association annual surveys.

If replacements are unknown, they can be estimated by a variety of techniques, such as the Rayleigh distribution (Olson & Choi 1985), the Inverse Gaussian distribution (Chhikara & Folks 1977), the maximum life to average service ratio (S/L) (Oates & Spencer 1962) and other advanced techniques. Each technique presents difficulties and each does not fully solve the problem of forecasting replacements.

For our purposes, the simplest and most direct approach will be used. The straightforward assumption will be made that a fixed proportion (r_t) of stock is removed each period. It can be shown that a constant replacement rate r_t does not assume a replacement probability density function f(t) which is exponential (Kamakura & Balasubramanian 1987). (The exponential distribution implies that the greater the age of the equipment the less likely it is to fail). Also, it can be shown that the replacement rate begins with a non-zero value and that the replacement rate increases with time. In other words, the two most critical criterion of replacement demand are met by the straightforward approach: failures can occur immediately and the likelihood of replacement increases with age.

Although the mechanism (1) is simple, it is very powerful because of its explicit conditions which organize additional information. For example, because of its perceived relationship to profits, most managers pay particular attention to market share (Jain 1990, p. 227).

Market share is a significant policy variable. The inclusion of market share captures the movement of many important effects such as promotional programs, supply constraints, environmental regulations, etc. Through the use of market share data, vital information is included in a the model. The inclusion of data that management knows to be important increases the credibility and accuracy of the model, and makes the model a more accepted forecasting model (Wright 1988; Mahmoud, Rice, & Malhotra 1988; and Gross 1987-88).

Using the data in **Table 1**, the model conditions are fulfilled at r_t = 7%. For a full discussion of model estimation, the reader is referred to Hebein (1990). The forecast of company sales are shown in **Table 2**. In **Table 3**, the forecast of the IDC model is compared with a regression time series model and an exponential smoothing model. Note that the IDC model has the lowest percent error for each year in the forecast period.

The company sales data are supplied by a producer of non corrosive piping systems which wishes to remain anonymous. The industry data are from the US Department of Commerce (1987) and the annual survey by the National Association of Convenience Stores (1987).

Accuracy

As shown in **Table 3**, the IDC model achieves greater accuracy than either time series method--exponential smoothing or regression. In the first year of the forecast period, the IDC model achieves 4.3% absolute percentage error. How does that compare with other forecasters' experience?

Makridakis (1982) compares 24 forecasts with 111 time series to find which models produce the lowest error one year ahead. The four lowest--single exponential smoothing (SES), Box Jenkins, Winters, and Holt's--average 8.8 MAPE (Mean Average Percent Error) with SES having the lowest MAPE at 7.8%. Clearly, the IDC model compares favorably with the best time series methods tested by Makridakis.

The relatively poor performance of the time series models in forecasting the Petroleum Marketing Industry, especially in the second and third year, may reflect the influence of the small sample size--8 observations-upon which the forecast must be based. However, limited data--10 years or less-- is often the situation in practice. Rarely does the forecaster have more than 8-10 years information. If the poor performance of exponential smoothing and

TABLE 1
AVAILABLE DATA

YEAR	COMPANY SALES ($000'S)	ESTIMATED COMPANY MARKET SHARE (%)	GAS STATION OUTLETS (UNITS)	CONVENIENCE STORES (UNITS)	CONVENIENCE STORE OUTLETS (UNITS)
1980	1279.0	40.0	158,020	39,000	17,160
1981	2172.0	41.0	151,250	39,000	18,330
1982	3071.0	42.0	144,690	50,000	24,555
1983	3938.0	43.0	136,570	53,000	28,164
1984	5802.0	44.0	132,080	58,000	31,528
1985	6518.0	44.3	124,600	60,000	32,064
1986	8936.0	45.1	120,510	64,000	34,656
1987	11809.0	45.5	115,870	70,000	39,200

TABLE 2
FORECAST RESULTS AND PERCENT ERROR

YR	SALES	IDC FRCST SALES	% ERR	ES FRCST SALES	% ERR	REGR FRCST SALES	% ERR	ES/IDC FRCST SALES ALPHA = 0.9999	% ERR	R/IDC FRCST SALES ALPHA = 0.999999	% ERR
88	17.30	16.58	-4.17	11.04	-36.2	16.51	-4.55	16.57	-4.20	16.58	-4.17
89	19.80	19.85	0.25	12.32	-37.8	11.39	13.08	19.84	0.21	19.85	0.25
90	23.00	22.78	-0.97	13.61	-40.8	30.59	33.02	22.77	-1.01	22.77	-0.97

All sales are in millions of dollars.

TABLE 3
SIGN TEST OF ERROR DIFFERENCES

SAMPLE NUMBER	PERCENT ERROR DIFFERENCES IDC LESS COMBINED IDC\ES	SIGN	PERCENT ERROR DIFFERENCES IDC LESS COMBINED IDC\R	SIGN
1	-4.17 - (-4.20)= +0.03	+	-4.17 - (4.17)= 0.0	NO DIFFERENCE
2	0.25 - (0.21) = +0.04	+	0.25 - 0.25 = 0.0	NO DIFFERENCE
3	-0.97- (-1.01) = +0.04	+	-0.97 - (0.97)= 0.0	NO DIFFERENCE

regression time series methods arises because insufficient observations are available to fit the model properly to the data, the limitation of the models to only situations with large sample sizes is a significant detriment to many practical applications.

In this paper, the IDC model's performance is compared to two other time series models. In the choice of time series models for comparison, the exponential smoothing method is selected because it is straight forward and easy to estimate even with small sample size. Although Box Jenkins methods may have provided superior results, Guerts and Ibrahim (1975) compare exponential smoothing relative to Box Jenkins and conclude that exponential smoothing and Box Jenkins perform equally well for certain time series. On the basis of their investigation, they recommend exponential smoothing over Box Jenkins because exponential smoothing is easier and cheaper to utilize. The regression of the logarithm of company sales against time is also used for comparison because of the popularity and ease of use of this standard OLS transformation.

Information Content

The greater accuracy of the IDC model suggests that it captures more information than the other time series methods compared in this paper. As Bass (1987) stated in explaining the accuracy of simple models versus econometric ones, it is the information content of models that is most important.

The extra information captured by the IDC model comes through operation of the model conditions, especially in regard to replacements, market share, and total sales relative to changes in stock of convenience stores.

For example, the judgmental estimates of market share and replacements are based upon historical data, managerial experience, and other data such as environmental cues (Lawrence et al 1986). In the Petroleum Marketing Industry, management "judged" that changes in EPA regulations in 1986 virtually mandated 75%-80% share (up from 60%) of the market to non corrosive piping systems. While the exponential smoothing and regression model had no mechanisms to factor in such important structural market changes, the IDC model's market share condition systematically included the information.

Conditional Efficiency

Many researchers have discovered that a combination of forecasts increases forecast accuracy (Makridakis and Winkler 1983; Flores and White 1988; Lawrence, Edmundson and O'Connor 1986). The Makridakis competition (Makridakis 1982) encouraged investigation and evaluation of systematic and judgmental means of combining forecasts. Basically, the current literature suggests that a combination of forecasts achieves better results compared to a single forecast because the combination forecast includes more information.

Given that a combination of forecasts is more accurate, how does a forecaster know when to stop "spinning" the forecast wheel. That is, when is there no further advantage in producing more forecasts? Or, given a forecast, how does a forecaster know it is "good enough" that a combination with other forecasts is not necessary.

Several researchers (Moriarty and Adams 1984), (Granger and Newbold, 1977, p. 269) have advanced the idea of conditional efficiency to evaluate the strength of a forecast. Briefly, the concept of conditional efficiency can be understood as minimizing variance. If the variance (or error) of a forecast, when compared to the variance of the actual phenomena, can not be significantly reduced by combination with another forecast (such as univariate Box Jenkins) the forecast is said to be conditionally efficient.

The work of several researchers has led to a practical test of conditional efficiency. Granger and Newbold (1977), Nelson (1972) and Moriarty and Adams (1984) suggest developing a weighted combination forecast (equation 2) which can be evaluated using parametric and non parametric statistics to test for conditional efficiency. Basically, the test considers two forecasts, $\hat{y}_{1i}$ and $\hat{y}_{2i}$. A weighted combination forecast $\hat{y}_i^c$, of the phenomena to be forecast y_i, is developed:

$$y_i = \hat{y}_i^c + e_i = \alpha \hat{y}_{1i} + (1-\alpha)\hat{y}_{2i} + e_i \qquad (2)$$

The above equation can be estimated either by regression formulas or by iterative methods which minimize error sum of squares. Since forecast observations are few (3), regression estimation of two coefficients leaves only one degree of freedom. The iterative approach allows one to systematically select alphas until the error sum of squares is minimized. If the alpha is sufficiently close to one, then $\hat{y}_{1i}$ can be considered conditionally efficient compared to $\hat{y}_{2i}$. Similarly if alpha is sufficiently close to zero, $\hat{y}_{2i}$ is conditionally efficient compared to $\hat{y}_{1i}$.

To perform the test of conditional efficiency, the iterative approach for equation (2) will be used to combine forecast data. The errors of the two combinations of forecasts (IDC-exponential smoothing and IDC-regression) are shown in **Table 2**. The alpha values for each of the two combinations are noted in the column headings. Because of the limited number of observations in the forecast period (3), the non parametric sign test will be utilized to test the hypothesis of conditional efficiency of the IDC model relative to the exponential smoothing (ES) model. The sign test of error differences is shown in **Table 3**.

The large values of alpha, $\alpha_{IDC/ES} = 0.9999$ and $\alpha_{IDC/R} = 0.999999$ suggest that the IDC model is conditional efficient. Because the IDC/regression comparison is so thoroughly dominated by IDC, equation (2) calculates an alpha nearly equal to one and the IDC/R combination forecast is identical to the IDC forecast. Consequently, we can conclude that the IDC model is conditionally efficient relative to the regression time series model.

In regard to the IDC/ES combination forecast (alpha = 0.9999), the binomial distribution for n=3, x=3, and $\theta=0.5$ can be used to determine if the null hypothesis can be rejected (Ostle 1963, p. 466). The null hypothesis is that the percent errors of the combined model in the forecast period are equal to the percent errors of the IDC model. The value for the binomial distribution for three identical outcomes (3 positive signs) is 0.125. Consequently, the null hypothesis can not be rejected at the probability level of alpha = 0.125 or smaller. Therefore we conclude that the IDC model is conditional efficient compared to both alternative time series models.

Effectiveness

Any forecasting model which excludes important causal information will have less credibility with management and is likely to perform less well in decision support than forecasting systems which include such information. Gross (1987-1988) emphasizes the operating problems in forecasting practices. In particular, manager don't know models and modelers are often too absorbed in the mechanics of forecasting to know enough about the industry. Forecasting methodologies which include more information, especially information believed by management to be causal, are more likely to achieve superior accuracy and to be more effective decision support tools.

Wright (1988) argues that the evaluation of a forecast is critically dependent on the management purpose of the forecast: Does the forecast lead to the correct or most profitable decision?

In this situation, the company rapidly expanded its capacity. Prior to the development of the IDC model, the company management had regarded the Petroleum Market as one of limited potential, with little prospects for real growth since the number of Petroleum Market Outlets were declining.

The IDC model's forecast that sales could nearly double in a three year period led to reconsideration of the Petroleum Market and substantial capital investment in the business. If the bottom line for market models, as Wright suggests, is their impact on firm profitability, then the IDC model described in this paper was a success.

Conclusions And Summary

The preceding introduces a general indirect deterministic causal (IDC) sales forecasting model for durable equipment. The model is applied to the Petroleum Marketing Industry and accurately forecasts sales for underground piping systems for a three year time horizon. The model is an effective decision support tool in that it leads to a correct investment decision. In comparison with time series methods, the IDC model is shown to contain more information and to be conditionally efficient.

The superior results of the IDC model most likely arises from three main characteristics: (1) the model structure and conditions are determined a priori to estimation; (2) the IDC model utilizes more information then the two time series methods (exponential smoothing and regression); and (3) the model permits the systematic use of managerial judgment.

By establishing a model structure and conditions prior to estimation, the data and degrees of freedom are not exhausted by "curve fitting". The IDC model is ideal for real world applications which have small sample size. In this application, only the historical period 1980-1987 period (8 annual observations) are available. In a typical time series method, there would be insufficient observations to estimate parameters for all of the variables included in the IDC model structure and conditions. Therefore, statistical time series methods must exclude information utilized in the IDC model.

Furthermore, the general mechanism of the model (Bagozzi's second factor) is broad enough to include subjective data such as estimates of market share and replacements, which are often not known with certainty, but which reflect managerial judgment.

Therefore, the use of an IDC model permits the utilization of judgmental information that is often difficult to include in time series methods. Also, the model is robust in that the subjective data is internalized into the model (endogenized) in a manner consistent with other model conditions.

The apparent simplicity of the general model for durable equipment veils a model structure which permits significant variable interaction and the utilization of managerial judgment. The literature is replete with calls for the combination of judgmental information into objective forecasts (Dalrymple and Parson 1983; Flores and White 1988; Lawrence et al 1986; Mahmoud et al 1988; Winkler and Makridakis 1983). The IDC model successfully and systematically integrates judgmental data into the model and the forecast.

Based upon the results of this research, the IDC model is a very powerful tool for sales forecasting. IDC models can utilize more information and tend to be robust because of the endogenizing of important data, particularly subjective data. IDC models can be utilized in small sample situations and demonstrate superior performance compared to commonly used time series methods.

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PHENOMENOLOGICAL RESEARCH: PROCEDURES AND ANALYSIS

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Abstract

Use of the phenomenological approach to research has been advanced as a way of "getting closer to customers" by seeing events as they are lived and experienced. A summary of the procedures and techniques of this methodology is presented here. This summary starts with the individual protocol moves on to the "individual psychological structure" (IPS) then to the "general psychological structure" (GPS) of the respondents as a group. If a group of researchers are involved, the final step is to determine the "interpretative group structure" (IGS) wherein an interpretation synthesis among the group is developed.

Introduction

Phenomenological research methodology is derived from a world view similar to existential philosophies (see Heidegger 1962; Sartre 1962). Whereas existentialism seeks to understand the human condition as it is manifest in concrete, lived situations, phenomenology is a method which allows contact with a phenomenon as it is actually lived and experienced (see Husserl 1962). Phenomenology is thus an almost perfect complement to existentialism. See Valle and King (1982) and Churchill and Wertz (1985) for more detail.

Examined from a natural science, (e.g., physics, chemistry, biology) logical/positivist viewpoint, phenomenological methodologies would be bad science. But the fact is that these two approaches to knowledge acquisition spring from entirely different philosophical, world-view roots. These root differences become particularly important and striking when considered in light of the pursuit of knowledge in the human sciences (e.g., psychology, sociology, marketing). Some of the differences between these two views of science are presented in Table 1. See Thompson, et al. (1989); Giorgi (1986); and Valle and King (1978) for a more complete discussion of these differences, and Hunt (1990) for ideas on blending the two approaches.

There have been papers describing phenomenological research in the marketing literature (e.g. Churchill and Wertz, 1985; O'Guinn and Faber 1989; Thompson, et al. 1989), but these papers have not provided much information on how to conduct this type of research. The purpose of this paper is to present one way of executing phenomenological research. While this "cookbook" approach is essentially in conflict with the phenomenological philosophy, the goal is to present a framework from which researchers can develop their own procedures to initiate this type of research.

Basic Philosophy

The basic idea of the phenomenological approach to understanding and discovery is to allow a phenomenon to "show itself". The common vehicle that is used to do this "showing" is the descriptive interview protocol, taped and transcribed. Protocols written by subjects, following set guidelines, can also be used. There is a marked difference between the Cartesian method of protocol analysis and the phenomenological approach. The Cartesian method attempts to dissect the event in order to discover the underlying structure, whereas the phenomenological approach seeks to identify recurring experiential patterns (Thompson, et al. 1989).

TABLE 1 - TWO VIEWS OF SCIENCE

Logical Positivist/ Cartesian View		Phenomenological View
A Person's Place in the World		
People are objects in the world.	vs.	**People** are indissolubly united and interrelated with their world.
Knowledge Acquisition		
Focus is on theoretical structures from a third person view.	vs.	**Focus** is on experience from a first person view.
Logic is deductive and inductive reasoning (e.g., calculative).	vs.	**Logic** is based on finding patterns as they emerge (e.g., meditative).
Approach is through examination of the component parts of a phenomenon.	vs.	**Approach** is through examiniation of experiences and their interrelationship to each other in the world in which they are found.
Goal is to reduce a phenomenon to quantitative dimensions which adhere to laws and principles.	vs.	**Goal** is to develop a theme-based description of the phenomenon.

The researcher approaches the phenomenon being studied, as presented in the protocols, with an open-mind, not letting what is found from the protocols to be colored by preconceived notions, hypotheses and so forth. These preconceived ideas are to be "bracketed"; that is they should be realized, put in a parenthesis, written down, and then held in abeyance when examining the protocols. Items that may color the analysis of a phenomenon, which should be considered for bracketing by the researcher, include; (1) educational background, (2) prior research, (3) reading in the topic area, (4) personal biases regarding the topic, (5) in summation all common sense and scientific foreknowledge about the phenomenon. What matters here is to be as aware as possible of preconceptions and other influences and to take them into account when analyzing the protocols. Areas of potential protocol evaluation contamination should be listed and considered and any possible influence written down before the protocols are examined.

For the phenomenological researcher to be truly free of preconceptions would be an impossibility. But the phenomenological researcher is conscious of the preconceptions (see Valle and King 1978). Bracketing is, therefore, not an absence of preconceptions, but a consciousness of those preconceptions. Through this "bracketed" approach, the researcher relates to the protocol in a non-dogmatic fashion and attempts to grasp meaning from, rather than impose meaning on, the protocol. The object is to experience the phenomenon "as it is lived" by the provider of the protocol.

In the sections that follow, the basic components of phenomenological research are discussed. Table 2 at the end of the paper summarizes these components. Most of the categories for these components are based on Wertz, 1983.

IPD, Individual Phenomenal Description

The beginning point in the phenomenological approach to understanding and discovery is to identify the phenomenon that is to be studied. This phenomenon can be any "lived" experience which can be identified in such a way that respondents can verbalize their experience with the phenomenon. For instance the phenomenon studied could be anything from being assaulted to receiving a survey in the mail. The individual phenomenal description (IPD) is the "data" that is analyzed using this methodological approach. Through the IPD we enter the "life-world" of the respondents, we see life as they lived it, the phenomenon as they experienced it. Through the procedures used to collect the protocols a preconceptionless description of a specific situation and action sequence in the "life-world" of the respondent, is provided. The following are some items to consider when collecting IPD's based on Kvale, 1983.

Collection of the phenomenological protocol: (1) is centered on the life-world of the respondent, (2) seeks to understand the meaning of a phenomena in that life-world, (3) is focused on a description of a specific phenomenon in that life-world, (4) is qualitative vs. quantitative, and (5) is presuppositionless. The protocols themselves: (1) are potentially ambiguous and subject to change, (2) may vary due to environmental variables, (3) are impacted by varying degrees of interpersonal interaction, and (4) can be a positive experience for the respondent.

IPS, Individual Psychological Structure

In this stage of the research the protocols are analyzed by the researchers. This part of phenomenological research is analogous to the data analysis/hypothesis testing component of positivist research. This component of phenomenological research requires the rigor and effort of its positivist counterpart.

As noted, providing a cookbook model of how to analyze protocols is contrary to the method. The following are some ideas, techniques, and philosophic bases for analyzing these protocols. These items are not to be construed as a cookbook, nor does a logical or chronological order always hold true. There will be interplay and cycling back and forth between the aspects of analysis described next.

The initial step is to read a protocol through to get an idea of what the respondent is saying. This is the first exposure to the life-world of the respondent. Read to get a broad sense of what is being said. Take notes regarding the overall sense of the protocol.

Following the initial reading, go through the protocol slowly, taking notes and/or marking the protocol. At this point, a sensitive empathizing (i.e, empathetic immersement, Wertz 1983) with the respondent's description of living through the situation of interest (e.g., receiving a survey) is needed. One cannot be a spectator, one must experience the situation the way the respondent experienced it (Churchill & Wertz 1985). This prepares the researcher for deeper analysis.

During this slow reading/empathizing aspect of the research, the researcher attempts to formulate and summarize what the respondent him/herself actually saw as the meanings involved in the situation described. Here the researcher sticks to the content of the protocol, letting it speak for itself about the life-world of the respondent. The researcher is interested in the way the phenomenon appears to the respondent. The researcher needs to be "in the experience" the way the respondent experienced it, behaved in it, and with an intimate understanding of the meaning assigned to the items of the phenomenon by the respondent. It is important to consider and understand what the respondent thought, felt, and did in the situation. Using these three categories of respondent involvement with the phenomenon can greatly aid in understanding it.

One tool that can be used to get to the meanings the respondent sees in the situation is to use the respondent's own terms, category systems and structures for describing the meanings seen by the respondent. This enables the researcher to stay at the "as-it-is-lived" level in understanding the respondent's description of a situation. This is the empathetic aspect of analysis.

On the second, third, and further readings of the protocol, certain techniques should be used to enhance empathizing and to aid in uncovering meaning and in developing an interpretation. First: SLOW DOWN AND DWELL on what is being said. Savor the comments made and the ideas being presented. Let the respondent's meaning come through. Second: MAGNIFY AND AMPLIFY what is being said. Magnify simple passing comments. Amplify subtle ideas. This technique is partially an outgrowth of dwelling on the statements in the protocol. By amplifying statements and ideas, things that may have been passed over as trivial may be found to be important. Here again, taking notes and marking the protocol are important activities.

As one becomes intimate with the protocol, three things should be recorded from the protocol. First, identify and record the basic components of the phenomenon and describe the components

completely; second, record any temporal ordering of these components and; third ascertain and record the relationships among the components. These three items will be particularly important to examine when developing summary statements of the findings across all respondents and when developing a synthesis of findings among a pair or group of researchers. These components and their temporal ordering and interrelationships can also serve as the basis for developing a model of the phenomenon.

After, and also alternating with, the intensely empathetic aspect of analysis is the stepping back and interpreting aspect. This is the heart, and probably the most involved part, of phenomenological analysis. Here a researcher now moves away from the protocol and reflects on the protocol. The details of the description of the phenomenon, and empathizing with the respondent have been recorded. Now the researcher needs to back away from, rather than stay immersed in, the details of the description or the sensations from empathizing. This aspect of the analysis involves reflection by the researcher and the application of his\her knowledge base to understanding the protocol.

There are two primary levels of reflection/analysis that are part of this aspect of phenomenological research. At one level a common sense interpretation of the respondent's protocol is generated. This interpretation goes beyond the respondent's description of the experience of the phenomenon and the meaning assigned by the respondent. The researcher attempts to get at the spirit of what is said, extending its meaning, by reading between the lines, and by moving back and forth from the specific components of the protocol to the whole context of the protocol. These whole-part transitions aid in drawing in a broader context than used by the respondent. "Testing" of the interpretation of part of the protocol should be done against the global meaning of the protocol.

Another technique for uncovering common sense meaning is the subject-object reversal. With this technique, not only is what the respondent says about the phenomenon considered, but what the statement says about the respondent. The whole-part and subject-object techniques may also aid in theoretical interpretation, which is the other level of interpretation.

Theoretical interpretation of a protocol is likely to go beyond the respondent's description of the phenomenon, and a common sense assessment of the description, to the use of the knowledge of general theories of which the researcher is aware. The researcher should keep returning to the original protocol to verify, modify and reformulate the interpretation developed. Both the common sense and theoretical levels of interpretation go beyond the literal details of the protocol and the researcher's sensations from empathizing with the protocol, to enriching and extending the respondent's conveyed meaning.

Several techniques which will aid in the theoretical interpretation aspect of the analysis, and could be applied to the common sense level also, will be identified next. No order of use is intended here which is in keeping with the nonsequential orientation of phenomenological research (Wertz 1983).

(1) Use an "existential baseline." That is, consider how the phenomenon examined differs from day-to-day phenomenon that are in the life of the respondent. Consider living through the phenomenon in relation to other phenomena in a relative way. Consider if there are explicit or implicit standards or baselines to which the phenomenon is compared.

(2) Remember to consider what each statement in the protocol reveals about the phenomenon being studied.

(3) Consider distinctions in the protocol. First note temporal sequences. These sequences can be particularly helpful when combining the findings from several respondents. Also consider the "before", "during" and "after" relative to the phenomenon. Identify in what way the world of the respondent has been changed by experiencing the phenomenon. Consider other distinctions such as spatial distinctions, social distinctions, and so forth as determined by the unique nature of the topic being studied.

(4) Try to put a theme to any reoccurring patterns or meanings found. Unity and consistency found among the respondents in the experiencing of the phenomenon will aid in later analysis.

(5) Dwell on any vague and perplexing parts of the protocol. Understanding of these obscure items can come through persistence and applying the techniques mentioned earlier.

(6) Determine which components, interrelationships and meanings of the protocol are essential to understanding the protocol. By considering hypothetical variations in these items, the researcher can determine what must be included to give the protocol its meaning. The researcher is trying to get to the essence of the protocol. Developing summary conclusions across subjects and developing a model of the phenomenon being studied are aided by this examination.

Interpretation of the protocol to determine its common sense and theoretical meanings should go on until a "good Gestalt" is found. Here all the themes of the protocol seem to fit together well in a consistent unity free of contradictions (Kvale 1983). As in other aspects of the analysis of the protocol, findings should be recorded.

As can be seen from the above discussion, phenomological research requires the use of all the researchers perceptual abilities. The researcher must not only cognitively process the information in the protocol but, must also affectively process the information. The researcher is required to use his/her whole brain in conducting this type of research. S/he must analyze and empathize, and must use logic and intuition to interpret the protocol.

GPS, General Psychological Structure

At this phase of the research, the written analyses of the individual respondents' protocols are all brought together. Here the researcher identifies the general structure of the phenomenon as gleaned from the specific IPS's. Several techniques will aid in formulating the general psychological structure of the phenomenon. These follow next and are based generally on Wertz (1983).

(1) First, look for commonality and consistencies among the write ups of the IPS's. Note what these consistencies say about the phenomenon. Identify where the protocols converge and where they diverge.

(2) Consider if there are generalized insights that can be obtained from the individual protocols. By examining the individual protocols, features, ideas and general truths that have applicability beyond the specific case may be found. The researcher can take statements in individual protocols and evaluate their applicability to all other protocols.

(3) Think beyond IPS's in an imaginative way. Imagine multiple variations of the components of the protocol, their order and their interrelationships. Imagine extreme situations that exist within the phenomenon studied. For instance, if mail surveys are the topic of study, think about lengths of questionnaires at the extremes (i.e., extremely short and extremely long) or extreme monetary incentives. Also consider, the broader categories of phenomena that the phenomenon under study is a part of and the narrower categories that are a part of it. Besides aiding in the development of the GPS, this technique helps the researcher determine the scope of the general statements that s/he intends to make.

(4) As a last step in constructing a GPS, the researcher must record and rework his/her findings, and possibly develop a model of the phenomenon under investigation. The recorded findings should reflect all the components of the phenomenon necessary and/or sufficient for the phenomenon to exist, the interrelationship between those components of the phenomenon, and the time sequencing of these components.

The researcher may actually be able to build a model of the phenomenon by examining the components of the phenomenon, their interrelationships and any temporal sequencing evident. This model could be very useful as a way of communicating the research findings and for comparison with other researchers' findings if an interpretative group is used.

The results of this part of the phenomenological investigation should be based firmly on the common sense and theoretical interpretation of the individual protocols. Note that the whole brain approach to understanding should be used as was discussed regarding the IPS and that the techniques presented for determining the IPS's can be applied to determining the GPS.

The IGS, Interpretative Group Structure

If a group of researchers are involved in the project, so much the better. Two to four researchers is probably the optimum number to have involved. There are several benefits of a group of researchers combining their GPS interpretations of a phenomenon which include: facilitating bracketing; serving as checks on each other's interpretations; providing a broader perspective than one individual would have; energizing the analysis in that the individual researcher may lose enthusiasm for the project, and reinforcing the interpretation of a researcher by providing immediate feedback of agreement with the interpretation (after Thompson et al 1989).

Many of the general techniques for running a group meeting would be appropriate to employ to facilitate the group interpretation. A few pointers in this regard are:

(1) Each group member should give a copy of the GPS they developed to the other group members,

(2) Bring all the material used in developing the GPS to the meeting (e.g., IPD's, IPS's, notes, etc.),

(3) Read the GPS's prior to the meeting noting similarities, differences, and, in particular, conflicting or discrepant interpretations. Note the components identified in the phenomenon, their temporal order, and interrelationships,

(4) Initially, focus on commonalities in interpretations in the group meeting. The merits of unique features of individual researchers GPS's should next be discussed and evaluated. Conflict and discrepancies need to be resolved. This is the heart of the group interpretation and may require multiple meetings to resolve conflicts,

(5) In the IGS write up, sections from indi vidual researcher's GPS can be used if it is felt that they clearly and eloquently convey the group's analysis. Other sections of the IGS may need to be written from scratch by the group member most involved with the topic, and the section given to the other group members for examination and approval. The final paper should be assembled by an assigned individual, and all group members provided a copy for final approval and editing. A model of the phenomenon under study is an important component of this final paper.

Conclusion

This paper presents a structured approach to an unstructured research methodology The intention was not to add structure but to provide a framework from which researchers can initiate the phenomenological methodology.

It is important to apply different research philosophies in order to enhance our understanding. Phenomenological research is in counter-point to the logical positivist (or Cartesian) view of discovery and the pursuit of knowledge. It does not use as its tools either technical knowledge or mathematical represen-

tation. The natural sciences are dominated by this technical, mathematical approach. Something would be missing if the study of the human sciences (e.g., psychology, marketing) worked only within the assumptions and followed only the techniques used in the natural sciences. As a counter-point, phenomenological research in the human sciences is beneficial as it accompanies and fills out the much applied positivist approaches. One of the primary contributions of this methodology, is to bring the experiential, as it is lived, aspects of a phenomenon into research. **Table 2** summarizes the phenomenological research method presented in this paper.

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TABLE 2 - PHENOMOLOGICAL INTERPRETATIONS OF PROTOCOLS

IPD (Individual Phenomenal Description) →	IPS (Individual Psychological Structure)					GPS (General Psychological Structure)	IGS (Interpretative Group Structure)
ASPECT	Bracket Biases →	Quick Reading of Protocol →	Slow Reading of Protocol →	Additional Slow Reading of Protocol →	Additional Slow Reading of Protocol →	Reading Recorded IPS's and Protocols →	Reading GPS's
ORIENTATION	Identify common sense and scientific presuppositions.	Broad sense.	Empathizing. Determine meaning assigned by Respondent.	Empathizing. Determine meaning assigned by Respondent.	Stop empathizing. Step back and interpret.	Take IPS's and move from individuality to generality.	Take GPS's and develop a consensus.
TECHNIQUES	1. Realize 2. Write down	1. Take notes 2. Mark protocol	1. Use Respondent's own words, categories, structures, etc. 2. Note thoughts, feelings, and actions. 3. Take notes 4. Mark protocol	1. Dwell on comments 2. Magnify and amplify comments 3. Take notes on: a) components of the phenomenon b) time order of the components c) relationship between components 4. Mark protocol	Common sense (and theoretical) level. 1. Whole-part transitions 2. Subject-object reversal Theoretical (and common sense) level 1. Use theories 2. Use of Base-Line 3. Revelation in statements 4. Make distinctions (e.g, temporal, spatial, social) 5. Thematize re-occurring patterns & meanings 6. Dwell on vague 7. Determine essence 8. Seek Good Gestalt 9. Record Findings	1. Pursue generalizable insights 2. Find commonalties and consistencies 3. Use imaginative variations 4. Record and rework findings 5. Develop model	1. Exchange copies of GPS's 2. Be prepared for meeting (bring materials, preread, etc.) 3. Note commonalities & discrepancies 4. Discuss and resolve differences 5. Develop consensus 6. Write and edit findings, including model

(Note: Use whole brain, cognitive-affective, analytical-intuitive processing of information throughout entire examination.)

UNOBTRUSIVE MEASURES OF INCOME: ALTERNATIVE BASES FOR SEGMENTATION

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Abstract

The power of two alternative unobtrusive measures of income is compared with that of an obtrusive, self-reported income measure in the explanation of consumption of a luxury good. Both of the unobtrusive measures, a multidimensional index and a unidimensional index, are more strongly associated with consumption of the luxury item than the obtrusive, self-reported income measure in a field experiment.

Introduction

Frequently, market segmentation is based upon one or more mesures of income or wealth. Typically, repondents are asked directly to report their annual household incomes, and usually this question is positioned late in measuring instruments. Income quesitons are "personal", and respondents are relatively likely to refuse to answer them. Additionally, evidence suggests that some of those who do respond to income and income-related questions provide inaccurate responses [5], [6], [9]. An unobtrusive measure of income or wealth would be desirable, if valid and reliable.

In this study, two unobtrusive measures of income are compared with an obtrusive measure of self-reported income in the prediction of consumption of a luxury good. Research objectives include identification of the measure with greatest explanatory power and identification of those indicators of income/wealth which are significantly related to consumption of luxuries.

Prior Research

Sociological research have produced a number of unidimensional indices of social status, each composed of summated scales of measures generally collected unobtrusively [1], [2], [4], [12]. These have been utilized by marketing researchers to attempt to segment various luxury markets which were believed to be income elastic.

Hisrich and Peters [3] used Warner's [12] Index of Social Class to segment the market for entertainment goods. Warner's Index [12] is a unidimensional summed scale, comprised of occupation, source of income, housing type and dwelling size. Hisrich and Peters [3] found that the Index was a weaker predictor of choice to consume or not consume entertainment than self-reported income. However, the Index was superior to self-reported income when used to predict frequency of use of specific entertainment items.

Schaninger [10] used Hollingshead's [4] Social Index, a unidimensional summed scale of self-reported occupation and education, to predict consumption of a number of consumer packaged goods and durables. In some cases, the Index was superior to self-reported income in the prediction of usage frequency; in other cases it was inferior to income level in usage frequency prediction.

Two major problems limit the use of sociological indices as bases for market segmentation. The first is related to their unidimensional character. All are summed scales comprised of multidimensional measures. The association between each of the scales' components and consumption of income-elastic goods is obscured, because of the summated nature of those scales.

The second limitation of sociological scales is related to their operationalization. Most require either unobtrusive, judgmental evaluation of subjects' residential situations or self-reported evaluations of subjects' occupational status.

The housing component of Warner's Index [12] illustrates these limitations and is representative of other sociological indices of social status. It includes seven categories which contain descriptions of hypothetical housing situations. Those descriptions are multidimensional and not mutually exclusive of all housing situations. Categories 1 and 2 are:

1. Large estates, with houses having over ten rooms and lawns a hundred feet or more wide, with trees and shrubbery. If in a city, houses of over ten rooms, kept with excellent care, in upper class areas.
2. Single-family houses of six to ten rooms on fairly large lots, about fifty feet from neighborhoods.

The single scale purportedly measures 1) number of rooms, 2) lot width, 3) landscaping, and 4) quality of upkeep. The seven hypothetical descriptions contain references to these four dimensions, although the seven categories are not exhaustive with respect to those dimensions. Judges must determine whether a ten-room house with lot one hundred feet wide, with trees, but in poor condition, is a '1' or a '2', or some other category. Measurement error is invited, and the relationships between size of residence, size of lot, landscaping, etc. and consumption are obscured.

Unobtrusive Measures of Income/Wealth

In order to avoid problems associated with the use of self-reported measures of income and with sociological scales of social status, two unobtrusive measures of buying power are proposed. Residential indicators of income are focused upon which are closely related to the residential components of Warner's Index [12], the "Housing Type" component in Coleman's Index [2], the "Home Value" portion of Carman's Index [1] and the residential area measure in

Hollingshead's Index [4], because they are easily observable, unlike occupation, education, income source, etc. The first is a multidimensional measure, including five residential descriptors: residence size, residential composition, presence of landscaping, presence/type of garage (attached or not), garage size, and lot size. The second is a unidimensional composite of these five measures, comprised of the principle component which explains the largest amount of variance in the five measures.

Methodology

To assess the predicitive capability of the two unobtrusive measures and that of self-reported income, a door-to-door survey was conducted. Six hundred and seventy heads of household in a midwestern suburb were asked to make a contribution to a charity, to complete a survey interview concerning recall of media advertising about that charity, and to reveal their annual household income levels. After completion of the interview, interviewers unobtrusively recorded residential characteristics. Since charitable contributions have been shown to be highly income-elastic [11], their consumption ought to be associated with indicators of income.

Fourteen percent made charitable contributions. To assess the explantory power of the income indicators, an equal number of noncontributors were randomly selected, constituting an analysis sample of twenty-eight percent, or 182 respondents: 91 contributors and 91 noncontributors. Each subsample was then randomly assigned to either calibration or prediction groups. Logistic regressions of compliance with charitable contribution requests among calibration sample respondents were utilized to examine the explanatory capability of the three measures. Coefficient estimates were then used to classify members of the hold-out prediction sample.

Results

As **Table 1** illustrates, the use of the multidimensional measures is superior to the use of either the first principle component of the unobtusive income indicators or self-reported income in both the explanation and the prediction of charitable donation. This result suggests that when multiple measures of income are available, all ought to be utilized or examined. While only two of the five residential descriptors, landscaping and type of composition (wood), are significantly related to charitable donation in the multivariate model, that model is the most highly significant and possesses the highest predictive capability among the set of four.

TABLE 1
CHARITABLE CONTRIBUTION ELASTICITIES WITH RESPECT TO ALTERNATIVE UNOBTRUSIVE AND OBTRUSIVE MEASURES OF INCOME

Variable	Beta	Chi-Square
Intercept	-.49	.1
Residence size	-.66	.7
Residence composition[a]		
wood	3.14	6.8**
aluminum	2.85	3.1
stucco	2.27	3.3
brick	1.94	3.8
Landscaping	-1.43	4.2*
Attached garage	-6.75	.1
Garage size	.10	.0
Lot size	.30	.5
Model		22.2**
Percent holdout sample correctly classified: 63.3[b]		
Intercept	.18	.6
Residential factor[c]	-.51	5.2*
Model		5.8*
Percent holdout sample correctly classified: 50.0		
Intercept	1.54	3.4
Self-reported income	-.49	3.7
Model		3.8
Percent holdout sample correctly classified: 55.6		

*Significant at a .05 level

**Significant at a .01 level

[a] Stone composition is the baseline

[b] Significantly greater than proportion correctly classified by random assignment (50%)

[c] Residential factor = .36*Residential size
+.30*Lotsize
+.21*Attached garage
-.02*Stucco
-.12*Aluminum
+.32*Garage size
+.25*Landscaping
+.17*Brick
-.10*Wood

Among the two models containing a single predictor, only the one based the first principle component of the five residential descriptors, which most closely resembles sociological indices, is significant, although classification based upon that model is not better than classification based upon random assignment. The model containing self-reported income is insignificant and also produces classification results equivalent to random assignment.

Discussion

Unobtrusive indicators of income appear to be useful bases for segmentation in luxury goods markets. Historically, alternative bases for segmentation have been operationalized through use of self-report measures, whose accuracy is suspect, or through use of summated scales borrowed from sociological research. The multivariate measures examined in this study appear to offer several advantages, relative to these previously used measures: 1) they are easily observable, and hence, unobtrusive; 2)

they are mutually exclusive; 3) they are multidimensional, allowing for the possibility that multiple indicators of income are associated with the consumption of luxury goods. Given the relative ease of their use and the promise of greater explanatory and predictive capability there appears to be reason to adopt those, or similar, unobtrusive measures for use in segmentation.

This study examined consumption on a single occasion of a luxury good: charitable donation. To comprehensively assess the value of multiple unobtrusive measures, other applications are warranted. Diverse luxury goods and multiple measures of consumption, such as frequency and extent of use, ought to be examined as candidate applications for segmentation based upon unobtrusive indicators of income.

While apparently useful segmentation bases, the multiple indicators of income examined here may or may not be strongly associated with actual income or wealth levels. While it is difficult to accurately assess either income or wealth levels, because of the problems inherent in self-reported measures, further study of these associations would be valuable.

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SELF-CONCEPT MOTIVATION AS MEDIATOR BETWEEN SELF-IMAGE CONGRUENCE AND ATTITUDE/INTENTION

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Abstract

Four self-image congruence models are popular in the consumer behavior literature. These are: actual self-congruity (the match between the product user image and consumer's actual self-image), ideal self-congruity (involving the consumer's ideal self-image), social self-congruity (involving the consumer's social self-image), and ideal social self-congruity (involving the consumer's ideal social self-image). The underlying self-concept motivational states that have been used to explain how the self-congruity models affect consumer behavior (brand preference, choice, usage, loyalty, etc.) are self-consistency, self-esteem, social consistency, and social approval motivation, in that order. A study was conducted involving eight products and 428 subjects designed to develop measures for the four self-concept motivational states and test the mediation hypothesis. Internal consistency reliability tests indicated adequate reliability. The data provided support for the mediation hypothesis, lending initial support for the validity of the measures.

Background

Self-image congruence models are based on the notion of the cognitive matching between value-expressive attributes of a given product (brand) and consumer self-concept. The models are designed to predict consumer behavior variables, such as product (brand or store) attitude, intention, behavior, and loyalty (see Sirgy 1982, 1985, 1986, Sirgy et al. 1991; and Claiborne and Sirgy 1990, Johar and Sirgy 1991, for comprehensive reviews of the consumer research literature in self-concept). Among the commonly used self-image congruence models include the actual self-congruity model, the ideal self-congruity model, the social self-congruity model, the ideal social self-congruity model, and the affective self-(social) congruity models.

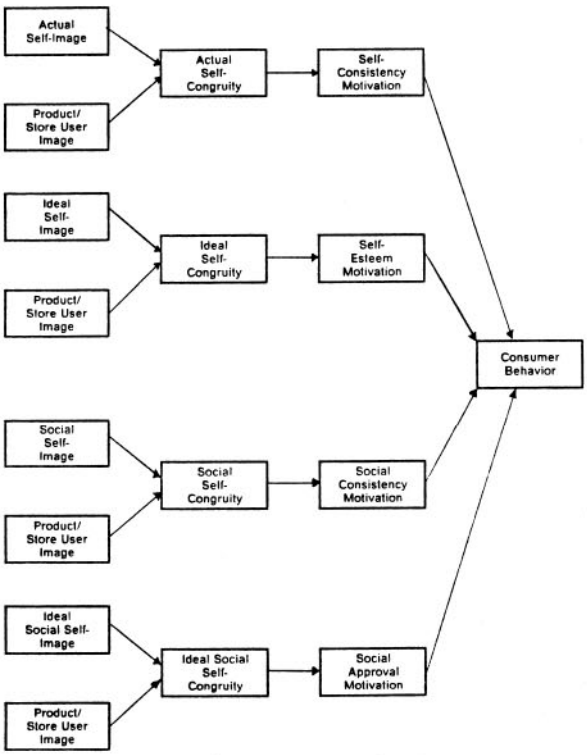
The actual self-congruity model describes how the match between consumers' actual self-image (how they see themselves) and the product user image (the stereotypic image of the generalized product user) influences attitude/behavior toward the product. The ideal self-congruity model describes how the match between consumers' ideal self-image (how they like to see themselves) and the product user image influences attitude/behavior. The social self-congruity model describes how the match between consumers' social self-image (how they believe they are seen by others) and the product user image influences attitude/behavior. The ideal social self-congruity model describes how the match between consumers' ideal social self-image (how they like to be seen by others) and product user image influences attitude/behavior. Finally, the affective self- (social) congruity models describe how the combined effects of actual (social) self-image and ideal (ideal social) self-image in relation to the product user image influence attitude/behavior.

Self-concept researchers have repeatedly argued that actual self-congruity affects consumer attitude/behavior through the activation and operation of the self-consistency motive; ideal self-congruity affects attitude/behavior through the mediation of the self-esteem motive; social self-congruity affects behavior through the mediation of the social consistency motive; and ideal social self-congruity affects attitude/behavior through the social approval motive. The self-consistency motive refers to the individual's need to act in ways that are consistent with his/her self-concept. To do otherwise would cause dissonance, which is a psychological discomfort state. It will threaten to invalidate the individual's beliefs about himself/herself (Epstein 1973; Kelly 1955; Lecky 1945; Rosenberg 1979). The self-esteem motive, on the other hand, refers to an individual's need to act in ways that are instrumental in achieving goals that maintain and/or increase positive self-regard (Cohen 1959; Coopersmith 1967; Rogers and Dymond 1954; Rosenberg 1979). Similarly, the need for social consistency is referred to as the motivational tendency to insure that one's beliefs/attitudes/behaviors will not violate one's social self-image or social identity (Baumeister 1982). The need for social approval refers to the motivational tendency to insure that one's beliefs/attitudes/behaviors will not violate one's ideal social self-images or the social norms (Cooley 1902; Crowne and Marlowe 1964; Edwards 1957; Goffman 1967; Mead 1934; Millham and Jacobson 1978).

If an individual experiences actual self-congruity (ideal self-congruity, social self-congruity, and/or ideal social self-congruity), s/he will be motivated to approach that product, because the use of the product will satisfy that individual's self-consistency (self-esteem, social consistency, and/or social approval) needs. For example, "this product seems to have an image of high social class" (product-user image) can match the consumer's actual self-image of himself/herself as "a classy person" (high actual self-congruity), his/her ideal self-image of wanting to be a "classy person" (high ideal self-congruity), his/her social self-image of believing that s/he is perceived by others as a "classy person", (high social self-congruity), and his/her ideal social self-image of wanting to be perceived by others as a "classy person" (high ideal social self-congruity). By using that product, the person in question would be able to

maintain and or enhance his/her needs of self-esteem, self-consistency, social consistency, and social approval. This situation is expected to maximize product preference and use (see Figure 1).

FIGURE 1
VARIOUS FORMS OF SELF-FORMS OF SELF-IMAGE AND THEIR UNDERLYING MOTIVATIONAL STATES



The purpose of this paper is to report a study in which initial measures were developed to tap the four states of self-concept motivation (self-consistency, self-esteem, social consistency, and social approval) corresponding to the four states of self-image congruence (actual self-congruity, ideal self-congruity, social self-congruity, and ideal social self-congruity). Further, the mediation hypothesis will be tested (see Figure 1). That is, the hypothesis that the self-concept motivational states mediate the relationship between self-image congruence and attitude/intention will be tested. Support for the mediation hypothesis would thus lend some support to the validity of the self-concept motivational measures.

Method

Sampling

Eight different samples were obtained, each corresponding to a different product (eight products used in the study). The goal was to obtain 70 respondents for each of the eight samples (eight products), a total of 560 respondents. Marketing students were used as consumer subjects for this study. The products selected were products commonly used by college students. These were: (1) auto, (2) camera, (3) tires, (4) watch, (5) soft drinks, (6) TV, (7) beer, and (8) headache remedy. Students were handed the questionnaire and asked to take it home and fill it out for an incentive of 1% point extra credit (toward the final grade). A total of 428 students completed the questionnaire producing a response rate of 76%. More specifically, the responses were broken down as follows: auto (n = 53), camera (n = 39), watch (n = 47), beer (N = 64), tires (n = 35), soft drink (n = 70), TV (n = 70), and headache remedy (n = 70).

Attitude/Intention Measures

Four self-report items using 5-point Likert-type scales were used to measure attitude/intention to each of the eight products. These were:

1. I like Focal Brand better than Referent Brand.
2. I would use Focal Brand more than I would Referent Brand.
3. Focal Brand is my preferred brand over Referent Brand.
4. I would be inclined to buy a Focal Brand over Referent Brand.

Note that subjects evaluated specific brands (focal brand) in relation to other brands (referent brand). The Cronbach Alpha Coefficients for each of the eight products varied from .72 to .98 (with an Alpha of .95 pooled across the eight product samples) indicating that these attitude/intention indicators are highly interrelated. Since, these items were found to be highly consistent with one another, an overall attitude/intention score was computed by averaging the four items.

Self-Concept Motivation Measures

Self-Consistency Motivation. This construct was measured using 10 self-report items along 5-point Likert-type scales. Example items were:

(+) 1. People who (use focal brand) are much more like me than people who (use referent brand).
(+) 2. I am the kind of person who (uses focal brand) rather than (referent brand).

Reliability analysis produced a Cronbach Alpha of .82 (pooled across all eight products) after deleting two items.

Self-Esteem Motivation. This construct was measured using 10 self-report items along 5-point Likert-type scales. Example items were:

(+) 1. I may like myself better if I were to (use) a (focal brand) rather than a (referent brand).
(-) 2. I don't like to see myself as a (user of focal brand) compared to (referent brand).

Reliability analysis produced a Cronbach Alpha of .84 (pooled across all eight products) after deleting four items.

Social Consistency Motivation. This construct was measured using 10 self-report items along 5-point Likert-type scales. Example items were:

(-) 1. People who are close to me have a hard time seeing me as preferring to (use) a (focal brand) over (referent brand).
(-) 2. People who know me think that I'm very different from those who most prefer a (focal brand) than a (referent brand).

Reliability analysis produced a Cronbach Alpha of .90 (pooled across all eight products) after deleting three items.

Social Approval Motivation. This construct was measured using 10 self-report items along 5-point Likert-type scales. Example items were:

(+) 1. My friends and associates don't like to see me as a (user) of a (focal brand) compared to (referent brand).
(-) 2. People that I associate with do not have much regard for the image of the (focal brand user) compared to the image of the (referent brand user).

Reliability analysis produced a Cronbach Alpha of .87 (pooled across all eight products) after deleting four items.

Self-Image Congruence Measures

Four self-congruity models were used in this study. These are: (1) self-congruity (match between product image and actual self-image), (2) ideal congruity (match between product image and ideal self-image), (3) social congruity (match between product image and social self-image), and (4) ideal social congruity (match between product image and ideal social self-image). These models have been traditionally operationalized using a distance index, i.e., the greater the distance between the product image and self-image the lower the congruity score, and vice versa (Sirgy 1982, 1985).

$$\sum_{i=1}^{n} |P_i - S_i|$$

where P_i = product image along attribute (i), $1 \leq P_i \leq 5$

S_i = actual (or ideal, social, or ideal social) self-image along attribute (i), $1 \leq S_i \leq 5$

Hence, by representing the S_i with actual self-image, this distance index captures actual self-congruity, ideal self-congruity when the S_i reflects ideal self-image, social self-congruity when the S_i reflects social self-image, ideal social self-congruity when the S_i reflects ideal social self-image.

In order to elicit the product image attributes pertaining to each of the selected products, a preliminary study was conducted. Thirty-nine college students participated in the preliminary study. Each subject received a questionnaire involving the eight products. After describing each product the subject was instructed to "Tell us in your own words, why you would or would not buy X." Subjects were to respond to this item in an open-ended manner after the following responses cue: "I would buy x compared by y because..." or "I would not buy x compared by y because..."

The open-ended responses were content-analyzed for symbolic evaluative criteria. An example of a symbolic evaluative criterion (product image attribute) is: "I would not buy this car because it is not me. The type of person who drives this car is economy-minded.

The product image attributes were used to measure the product image, the actual self-image, the ideal image, the social self-image, and the ideal social self-image. More specifically, the product image was measured using a set of 5-point Likert-scale items (comprised of the symbolic attributes elicited from the preliminary study). The response cue used for the product image measure was "Imagine a person who might possess (or prefer to buy) Focal Brand and compare him/her with a typical person who might prefer to buy Referent Brand. Indicate your agreement or disagreement to the following items that describe the person who might typically prefer to buy Focal Brand. Circle the number which most closely reflects your opinion." Each Likert scale contained a "no-opinion" category, which was treated as missing value in the statistical analyses. An example of a symbolic attribute used to tap the product image in the context of the automobile questionnaire is: "The owner of a Honda Civic automobile is a more stylish person than the owner of a Chevy Chevette." This item involves the symbolic attribute of "stylish" phrased in the context of the automobile questionnaire.

The actual self-image was measured using the same set of symbolic attributes (used to measure the product image) along 5-point Likert scales. The response cue used to tap the actual self-image was: "Indicate your agreement or disagreement to the following items that describe your 'actual self' - that is, the sort of person you think you are, or the way in which you actually see yourself." An example of a symbolic attribute used to tap the actual self-image in the context of the automobile product situation is: "I am the type of person who is stylish." The response cue used to tap the ideal self-image was: "Indicate your agreement or disagreement to the following items that describe your 'ideal self' - that is, the sort of person you would most like to be (or being), or the way in which you ideally see yourself." An example of a symbolic attribute used to tap the ideal self-image in the context of the automobile product situation is: "I like to be the type of person who is stylish." The response cue used to tap the social self-image was: "Indicate your agreement or disagreement to the following items that describe your 'social self' - that is, the sort of person you are seen by others, or the way you believe other people see you." An example of a symbolic attribute used to tap the social self-image in the context of

the automobile product situation is: "Those people who are close to me see me as being stylish." The response cue used to tap the ideal social self-image was: "Indicate your agreement or disagreement to the following items that describe you 'ideal social self' - that is, the sort of person you like to be seen by others, or the way you want others to see you." An example of a symbolic attribute used to tap the ideal social self-image in the context of the automobile product situation is: "I like those people who are close to me to see me as being stylish."

Results and Discussion

Table 1 shows correlations among the constructs of the model as shown in **Figure 1**. The correlations between the self-image congruence constructs and the corresponding self-concept motivation constructs are moderate and significant (ASC/SCM = -.317, $p < .001$; ISC/SEM = -.313, $p < .001$; SSC/OCM = -.234, $p < .001$; ISSC/SAM = -.220, $p < .001$). These results provide some evidence of convergent validity of the self-concept motivation measures. Furthermore, the correlations between attitude/intention and self-concept motivation are all high and significant (ATT/SEM = .690, $p < .001$; ATT/SEM = .546, $p < .001$; ATT/OCM = .594, $p < .001$; ATT/SAM = .395, $p < .001$). These correlations are higher than the correlations between attitude/intention and self-image congruence constructs (ATT/ASC = -.252, $p < .001$; ATT/ISC = -.252, $p < .001$; ATT/SSC = -.213, $p < .001$; ATT/ISSC = -.213, $p < .001$; ATT/ISSC = -.198, $p < .001$). These results provide some initial evidence of nomological validity of the self-concept motivation measures.

TABLE 1
CORRELATIONS AMONG SELF-CONCEPT MOTIVATION CONSTRUCTS, SELF-IMAGE CONGRUENCE CONSTRUCTS, AND ATTITUDE/INTENTION

		Self-Image Congruence Constructs				Self-Concept Motivation Constructs			
		MASC	MISC	MSSC	MISSC	SASC	SISC	SSSC	SISSC
Self-Image Congruence Constructs	ASC								
	ISC	.879							
	SSC	.869	.804						
	ISSC	.734	.772	.746					
Self-Concept Motivation Constructs	SCM	-.317	-.286	-.274	-.276				
	SEM	-.321	-.313	-.263	-.253	.746			
	OCM	-.285	-.263	-.234	-.205	.810	.806		
	SAM	-.276	-.271	-.222	-.220	.612	.829	.753	
	ATT	-.252	-.204	-.213	-.198	.690	.546	.594	.395

NOTES:
ASC = Mathematical Actual Self-Congruity
ISC = Mathematical Ideal Self-Congruity
SSC = Mathematical Social Self-Congruity
ISSC = Mathematical Ideal Social Self-Congruity

SCM = Self-Consistency Motivation
SEM = Self-Esteem Motivation
OCM = Social Consistency Motivation
SAM = Social Approval Motivation

ATT = Attitude/Intention

All correlations are significant below the .01 level.

The mediation hypothesis was tested by regressing attitude/intention scores against a self-image congruence construct and comparing the R^2 to the regression involving both the self-image congruence and its corresponding self-concept motivation construct. In this case, we expect that the R^2 involving both self-image congruence and self-concept motivation to be significantly higher than the R^2 involving self-image congruence alone. Conversely, we would expect that the R^2 involving both self-image congruence and self-concept motivation not to be significantly higher than the R^2 involving self-concept motivation alone. Table 3 shows the regression results testing the mediation hypothesis.

TABLE 2
REGRESSION ANALYSIS TESTING THE MEDIATION HYPOTHESIS

	Step 1 R^2	Step 2 R^2	R^2 increment
ASC, SCM	.064*	.478*	.414*
ISC, SEM	.041*	.300*	.259*
SSC, OCM	.045*	.359*	.314*
ISSC, SAM	.039*	.169*	.130*
SCM, ASC	.477*	.478*	.001
SEM, ISC	.298*	.300*	.002
OCM, SSC	.353*	.359*	.006
SAM, ISSC	.156*	.169*	.013

NOTES:

ASC = Actual self-congruity
ISC = Ideal self-congruity
SSC = Social self-congruity
ISSC = Ideal social self-congruity

SCM = Self-Consistency Motivation
SEM = Self-Esteem Motivation
OCM = Social Consistency Motivation
SAM = Social Approval Motivation

* $p < .001$

e.g., ASC, SCM means that attitude/intention scores were regressed first against ASC alone (Step 1) and with SCM together (Step 2). SCM, ASC means that attitude/intention scores were regressed first against SCM alone (Step 1) and with ASC together (Step 2).

The results clearly provide support for the mediation hypothesis. Note that the R^2 increments when the self-concept motivation variables are added to the self-image congruence variables are all high and significant (range between .130 and .414, $p < .01$). However, the R^2 increments are very low and nonsignificant when the self-image congruence variables are added to the self-concept motivation variables in the regression equations (range between .001 and .013, $p > .01$). These results provide additional support for the construct validity of the self-concept motivation measures.

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MULTIPLE COMPARISON AND CROSS-VALIDATION IN EVALUATING STRUCTURAL EQUATION MODELS

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Abstract

This paper discusses the need for multiple comparison and cross-validation in evaluating structural equation models from the perspectives of philosophy of science, statistics, and methodology. After the issues associated with a single model test are examined, a comparison of competing models is suggested in its place. Theoretical arguments are also made for the use of cross-validation in comparing alternative models.

Over the last decade, structural equation models have been used by many marketing researchers (e.g., Fornell 1987). Nevertheless, relatively few studies have addressed the question of how structural equation models should be evaluated (cf. Bagozzi 1981; Fornell and Larcker 1981). Furthermore, many of these studies have focused mainly on the statistical problems with current modeling procedures (Bagozzi and Yi 1988). The purpose of this paper is to investigate the issues in evaluating structural equation models from a different perspective based on the principles of scientific inferences.

Many researchers have taken a confirmatory (or theory testing) approach to evaluating structural equation models. In this approach, a researcher tests a model via some goodness-of-fit measures (e.g., chi-square statistics) to confirm that the proposed model accounts for the observed data. If the fit is unsatisfactory, the model is rejected; if the fit is satisfactory, the model is accepted. However, this confirmatory approach can be misleading, since it does not consider how effective alternative models are in explaining the same data (e.g., Sternthal, Tybout, and Calder 1987). It is thus argued that one should assess the relative adequacy of models by comparing competing models, rather than testing a single model.

It is often the case that evaluations of a model differ across samples. For example, a model that is good for one sample may turn out to be poor for other samples. That is, evaluations of a model are often affected by the choice of sample for the study. Ideally, evaluation of a model should be able to assess the explanatory power of the model not just for a given sample, but for the population in general. Therefore, we need criteria for evaluating models that are relatively robust to the choice of sample. In this regard, cross-validation is suggested to assess the robustness of model adequacy. In sum, this paper discusses the need for multiple comparison and cross-validation in evaluating structural equation models from the viewpoints of philosophy of science, statistics, and methodology. This paper will not discuss the technical details of structural equation model evaluation, but will be conceptual in focus.

Need for a Comparative Approach

In this section, we examine the problems of the so-called confirmatory approach (i.e., test of a single model) in evaluating structural equation models and propose a comparative approach (i.e., comparison of competing models) in its place.

Problems of the Statistical Test in Structural Equation Modeling

We will begin by examining the procedures of hypothesis testing in general. Models usually involve several hypotheses, but the logic of model testing will be similar to that of hypothesis testing. Let us consider two types of arguments to understand the logic of hypothesis testing. For simplicity, let us call the antecedent condition "A," and the consequent "B." In the hypothesis testing context, we can view A as a null hypothesis (H_o) and B as observed data.

Types of Arguments

A1: If A, then B. B is false. Therefore, A is false.
A2: If A, then B. B is true. Therefore, A is true.

The argument of A1 is quite valid and known as "*modus tollens*." The argument starts with a premise that if A is true, then B is true. Since the argument A1 is valid, we can conclude that A is false if we find B to be false. There might be two misunderstandings about this premise. One might think that A is a cause of B, but A is not necessarily a cause of B. The premise only says that if the antecedent A is satisfied, the consequent B will occur. The other misunderstanding might be that the premise tells the truth of the consequent B. But the premise is only a conditional statement that if A is true, then B is true. For the truth of the consequent B, we need the truth of premises as well as the validity of arguments. From now on, we will assume the truth of the premise throughout this paper.

The argument of A2 is not valid and known as the "fallacy of affirming the consequent" (Copi 1953). Finding B to be true does not allow us to conclude that A (H_o) is true, since there may be antecedents other than A. A becomes only more credible, given the premise and the truth of B.

In sum, we cannot prove a hypothesis to be true; we can only refute a hypothesis. From this viewpoint, alternatives are: i) reject H_o, and ii) cannot reject H_o. If a null hypothesis is not rejected, it remains as a not-rejected one, rather than as an accepted one. It is because of the validity of *modus tollens* that the null hypothesis is introduced in significance tests (Henkel and Morrison 1970). In a typical hypothesis test, a researcher's theory is identified with an alternative hypothesis, and its support comes from a rejection of the null hypothesis (i.e., due to the significant test statistic).

Returning to the evaluation of structural equation models, the chi-square (χ^2) test contrasts with the usual hypothesis test. The researcher's theory is identified with the null hypothesis, and its support comes from the failure to reject the null hypothesis (i.e., due to the nonsignificant χ^2 statistic). The usual role of the null hypothesis is reversed, and one is attempting to prove the null hypothesis. However, a nonsignificant χ^2 statistic does not prove that the null hypothesis is correct, but only suggests that the null hypothesis cannot be rejected. As a result, the χ^2 test using a researcher's model as the null hypothesis gives limited insights into the truth of a model.

provides a good fit to the data. How much confidence can we have in this model? The answer will depend on the status of alternative explanations. If the data are not explained by rival models, we can have high confidence in the model. However, if the data are also explained by rival models, our confidence in the focal model will become low. It is thus suggested that one should compare a proposed model with theoretically relevant, competing models. By demonstrating that the data are unlikely to be observed under alternative models, one can eliminate the rival models. As researchers have argued, the χ^2 test should thus be used for comparing a model with other models, rather than for testing whether or not a model is true (Bagozzi 1981; Jöreskog and Sörbom 1984). This idea of comparing competing models is also found in the debate over the significance test.

> Classical significance tests are violently biased against the null hypothesis. A conservative theorist will therefore associate his theory with the null hypothesis, while an enthusiast will not--and they may often reach conflicting conclusions, whether or not the theory is correct. No procedure can satisfactorily test the goodness of fit of a single model to the data. The remedy is to *compare the fit of several models to the same data.* (Edwards 1965, p. 400).

A comparative approach is also useful with respect to the sensitivity of χ^2 to the sample size. It is well known that even a trivial discrepancy can lead to rejection of the model for very large samples, whereas a relatively substantial discrepancy can yield false acceptance of the model for very small samples (Jöreskog and Sörbom 1984). That is, acceptance or rejection of a model via a χ^2 test may result not only from model adequacy but also from sample size. As a consequence, ambiguity exists in using the usual χ^2 test for evaluating a single model. However, a comparative approach suffers less from such ambiguity. Since competing models are evaluated on the same sample, conclusions about the relative adequacy of models are not affected by the sample size.

Difficulty of Proving Theories with Data

In the previous section, we discussed problems of using the research hypothesis as a null hypothesis. However, whether a theory is used as a null hypothesis (H_0) or not, a theory is never proven by data. Unlike the logical proof, theories cannot be proven with empirical data. The observation that data are consistent with the theory only suggests that there is an insufficient basis for rejecting the theory.

In testing a theory, one should gather data that are theoretically appropriate and statistically adequate. This is ideally good, but practically difficult in most research in light of the random and unpredictable nature of human behavior. This incompleteness of data adds to the difficulty in proving a theory with data. Since we cannot prove a theory with data, we should "compare" a theory with other theories rather than "testing" a theory. The belief in a theory is not a matter of all or none, but a matter of degree.

Multiplicity of Plausible Models

The problem of multiplicity of plausible models is prevalent in social sciences; several different models often provide equally good fits to the given data. This problem has also been recognized among users of structural equation modeling.

> Even if a model is consistent with the data, one cannot conclude that it mirrors the true causal process, since other models also might be able to reproduce the moment structure of the data (Bentler 1980, p.426).
>
> It is well to remember that models other than the one that "fits" will fit the data equally well. Indeed the very form of the equations underlying LISREL guarantee that in virtually every application there is an indefinity of models that will fit the data well (Cliff 1983, p.118).

Testing only one model can lead researchers to overlook the possibility that other models may also explain the same data. Comparing a set of competing models will give better insights into the relative explanatory power of a proposed model than will a consideration of only the proposed model. By comparing the predictions of various models, this approach will show which model is better than others.

Suppose a researcher proposed Model A. Suppose further that there are three alternative models (B, C, and D) which also make sense substantively. In a strictly confirmatory approach, one would test only the focal model A. If Model A gives a satisfactory fit to the data, one might conclude that Model A is satisfactory. But a useful question to ask is: How do other models perform in comparison with this model? If other models (B, C, and D) are found to give poor fits, Model A gets more support (by eliminating rival models) than in a single test of the model. On the other hand, if alternative models (B, C, and D) provide better fits, one's confidence in Model A would become relatively weak. That is, evaluation of Model A would depend upon the evaluation of alternative models. Thus, a comparative approach gives better insights into the explanatory power of the model than a single-shot test approach.

A consideration of competing models is also useful for benchmark comparison. A model presented with no comparisons available is difficult to evaluate. One use of multiple comparison is the development of incremental-difference methods of model evaluation. By building a series of nested models, it is possible to use incremental-difference statistical tests. This type of test evaluates the contribution of additional elements over the simpler model and forces the inclusion of the principle of parsimony in the model evaluation process. Furthermore, such model comparison eliminates the problems associated with the reversal of the null hypothesis. By treating the simple model as a null hypothesis, support for the hypotheses about additional paths comes from rejecting the null hypothesis. Thus, the logic of model testing becomes consistent with that of classical hypothesis testing. Researchers have often recognized the importance of such nested model comparison in structural equation modeling (e.g., Bentler 1980; Jöreskog and Sörbom 1984).

Models as Approximations to Reality

Another reason for using the comparative approach (rather than testing a single model) comes from the nature of models. Models are approximate representations of the real world, providing a simplified picture of some phenomenon. Some models may be closer to the reality than others, but they are never entirely accurate pictures of it. The appropriate question is not whether models are true or false, but which model gives the better approximation. Cudeck and Browne (1983) criticized the model testing approach with the acceptance/ rejection rule, and in its place proposed that one consider hypothesized models as approximations of

reality. The goal of the analysis is to find a model among a set of alternatives which best approximates the reality.

Suppose an instance where a proposed model is rejected with the χ^2 test. Should we stop here and cease to search for an explanation of the phenomenon? Considering that models are approximations to explain a phenomenon, we may still need the *best* approximation as a tentative explanation. Suppose, on the other hand, a case where a proposed model is acceptable, but many other models are also acceptable. Shall we regard the proposed model as *the* explanation of the phenomenon? Since other models are also acceptable, we may need to assess which model is better by comparing the proposed model with alternative models. In sum, a search should be made for the best approximation of the reality by comparing competing models.

Need for Cross-Validation

We have discussed the need for comparison of competing models. The next question would be: How can we evaluate competing models? In this study, cross-validation is suggested as an aid to model evaluations.

Limitations of the χ^2 Test for Evaluating Models

The usual practice in evaluating structural equation models has been to use the χ^2 test of the model for the given sample. There are, however, several limitations of such χ^2 statistic for evaluating a model. First, χ^2 obtained from a given sample might not reflect the general adequacy of a model, since the same sample is used for both estimation and evaluation of the model. The algorithm in LISREL finds parameter estimates that minimize χ^2 by utilizing all information from the given data (Jöreskog and Sörbom 1984). "All information" here can include the idiosyncratic sample bias as well as the population properties; that is, the minimization process can yield a model that fits the particular sample bias as well. As a consequence, the fit of the model to the true population may not be as good as that for the particular sample, which is indicated by the χ^2 obtained for that sample.

Second, the χ^2 obtained from the estimation sample is a descriptive rather than predictive measure. A good model should not only describe the given data but also predict other data. In order to evaluate a model, one needs to assess its predictive power on independent samples. The usual χ^2 is not adequate for this purpose, since it is used to evaluate a model on the same sample from which the model is derived.

Cross-Validation for Evaluating Models

Theoretical Requirements. Tests of a model should assess its generality in explanation and prediction. As discussed earlier, the χ^2 statistic or other goodness-of-fit measure derived from the given sample lacks these properties. The model should work not only for the given sample, but also for other samples. The model should also be able to predict the future event. One way to examine such predictive ability is cross-validation, an old but still valuable idea (Cooil, Winer, and Rados 1987; Mosier 1951).

In cross-validation, a sample is randomly split into two parts. One part is used for deriving the model, while the other is used for evaluating the derived model. In this sense, cross-validation simulates prediction on an independent sample. Thus, model assessment via cross-validation is less likely to be affected by the particular sample. Cross-validation would be important especially when experimentation is not possible, random sampling is difficult, and robustness of the model is a goal.

Magical Thinking vs. Scientific Thinking. If one makes no attempt to check whether the derived model could be a result of chance factors, and just accepts the findings, it comes close to so-called "magical thinking." Magical thinking refers to our inclination to seek and unquestionably interpret connections among events, and our disinclination to revise the belief after future observation (Cassirer 1972; Shweder 1977).

Diaconis differentiates magical thinking from scientific thinking in theories of data analysis. In magical thinking, the technique of data analysis is viewed as a ritual to reveal patterns in a data set; one believes that naturally observed data sets contain some structure. For scientific thinking, one should keep the inclination to seek meaningful connections and interpretation, and overcome the disinclination to learn from more experience. For this purpose, Diaconis emphasizes the need for repetition on new data.

> In much of science, repetition on new data is both possible and practical. Such science proceeds by combining explanation with attempted confirmation on new data. Repetition with distinct data and distinct experimenters or observers is a hallmark that distinguishes science from magical thinking, although both share a substantial dependence on exploration (Diaconis 1983, p. 5).

Behavioral sciences fall under John Tukey's label "uncomfortable science," because real repetition or exact replication is not feasible or is difficult to execute. It is often difficult to get a second sample. Even though we get a second sample, many contaminating factors may bring about differences between the samples; we can hardly expect the same conditions for a second sample. Cross-validation can be useful in this respect. Cross-validation uses a portion of the given sample for derivation and treats another portion as a replication sample for validation. This scheme simulates repetition on new data from the same population.

Communication between Data and Theory. We can find two basic ways of scientific inquiry in the philosophy of science; in Bacon's terms, they are "anticipation of the mind" and "interpretation of nature." In the former case, theories are specified and then tested by empirical research. This theory-then-research approach is developed most explicitly by Popper (1963). He suggested that scientific knowledge would advance most rapidly through conjectures (development of new ideas) and refutation (attempts to falsify them). In the latter approach, theories or laws of nature are derived from a careful examination of all the available data. Bacon suggested that "true sons of science" should be using this approach.

There is a growing concern that the two approaches are not mutually exclusive but complementary (Fornell 1987). Without a theory or model, there is no generality; without data, one's model remains imaginary or abstract. In an overview of the literature on data analysis, Mallows and Tukey (1982) criticized the tendency that one takes the models as "given" and discusses data analysis within this context. According to them, this is one-way (from theory to data), and data should also be used to generate models (from data to theory). They emphasize the role of two-waycommunications between data and models for advances of most sciences.

Structural equation modeling is well suited for this purpose. A fundamental objective of this methodology is to bring data and theory together (Fornell 1987, 1989). One can specify structural equation models with a theory before facing data. LISREL also gives some guidance as to how to improve the model based on the data; one can alter the model by examining the modification index or fitted residuals. However, once a model is adjusted in light of data, it loses its status as a hypothesis (Cliff 1983). So one can be in a dilemma:

(1) Hypotheses or models should precede data.
(2) Data and models should talk to each other.

Cross-validation gives a partial solution to these conflicts. Exploration for the good-fitting model is done on one data set (that is, from data to theory), but confirmation or assessment of the model is done on the other (that is, from theory to data). The two-way talk occurs between data and theory, but the derived model is still independent of the validation sample. Since the model precedes data being used for assessing its adequacy, it remains as a hypothesis to be tested.

Cross-Validation in Structural Equation Models

Model Adequacy and Parameter Adequacy. It might be useful to distinguish model adequacy (i.e., adequacy of the overall model) from parameter adequacy (i.e., adequacy of individual parameters). Furthermore, the adequacy of a model or parameter may be assessed from two aspects: validity and stability. Validity concerns how similar the estimated model or parameter is to that of the true population, while stability pertains to how effective a derived model or parameter is for independent samples. Since it is difficult to know the true model, we will rely on the stability aspect of model adequacy. The cross-validation approach evaluates model stability by examining how effective a model is for independent samples.

Comparison with Similar Concepts. There are several terms similar to cross-validation, and they are often loosely used interchangeably (e.g., Mosier 1951). These concepts are briefly reviewed here.

1. Cross-validation. In this strategy, parameters of a model are estimated on one sample and the predictive effectiveness of the model is assessed on an independent sample similarly drawn from the *same* population. Usually the given sample is randomly divided into two halves, and each of the two is used respectively for estimation and validation. Therefore, derivation and assessment are performed independently in the cross-validation scheme. The objective is to get an unbiased measure of model adequacy. This looks similar to the usual validation scheme, but differs conceptually. In the simple validation scheme, the model is evaluated in the derivation sample. After the best model is chosen by evaluating models in the derivation sample, that model with estimates from derivation sample is applied to the validation sample. But in the cross-validation scheme, the evaluation is not done in the derivation sample, but in the validation sample.

2. Validity Generalization. In this scheme, parameters of a model are determined on a sample from one population, but the effectiveness of a model is assessed (with the same criterion) on a second sample drawn from a *different* population. Validity generalization is to answer the following question: If a model is found effective for a population, how effective is it for another population? The objective is to see whether the validity of a model will generalize to different populations. That is, it concerns expanding the scope of the explanation of the model.

3. Validity Extension. This is similar to validity generalization, but the criteria as well as populations differ. In validity extension, criteria used in the derivation of a model are different from those employed in its assessment. For example, if we use RMR (root mean square residual) instead of χ^2 in evaluating structural equation models, it is an application of validity extension.

Cross-Validation Procedures in Structural Equation Models. The cross-validation in the structural equation model takes the following steps (e.g., Cudeck and Browne 1983).

(1) The given sample is randomly split into two subsamples (often halves): a derivation sample and a validation sample. Both sample covariance matrices S_d and S_v are obtained from the derivation sample and the validation sample, respectively.

(2) On the derivation sample, all the parameters are estimated for a hypothesized model by minimizing the discrepancy function. This estimation is done by the usual application of LISREL to the derivation sample. The model reproduces the variance-covariance matrix, and the resulting χ^2 is the usual goodness-of-fit measure for the derivation sample.

(3) On the validation sample, the derived model is applied with some or all of the parameters fixed to the estimates obtained from the derivation sample.

Specification of the model includes fixing some or all of parameters in the validation sample to the estimates obtained from the derivation sample. The other parameters are set free and estimated on the validation sample. That is, some parameters are fixed to the values of estimates from the derivation sample, whereas other parameters are allowed to differ from those obtained on the derivation sample. The next question is: Which parameters are to be fixed?

In this regard one can use three possible strategies of cross-validation (Bentler 1980). In the loose scheme, the same factor pattern and structural paths are used, but all the parameters are set free and estimated on the validation sample. In estimating the model for the validation sample, this option uses only the same pattern for measurement models (e.g., factor loadings) and structural models (e.g., causal paths) as the derivation sample, but all the parameters are allowed to differ from those estimates from the derivation sample.

In the moderate case, critical theoretical parameters (e.g., the same elements in beta and gamma matrices) and measurement parameters (e.g., the same elements in lambda matrices) are fixed to the estimated values from the derivation sample, but error variances are set free and estimated on the validation sample. That is, this scheme allows for different error variances between derivation and validation samples.

In the tight case, all the parameters, including error variances, are fixed to the values of estimates obtained from the derivation sample. That is, one would attempt to fit the model on the validation sample by using the derivation sample's exact parameter estimates.

When the model is validated according to one of these strategies, the χ^2 value is the cross-validated measure of goodness-of-fit for the model. When several competing

models are validated, the cross-validated χ^2 values can used as robust measures of model adequacy. Furthermore, the relative assessment of the competing models is not affected by the sample size, since the cross-validated χ^2 values are based on the same sample size. Although we have thus far focused mainly on the chi-square tests, one may also examine other goodness-of-fit measures such as GFI and RMR. To save space, this paper does not include an illustration of the proposed procedures, but one is available upon request.

To be fair, cross-validation is not without disadvantages. In particular, dividing the sample in half may not leave enough observations to get reliable estimates from a maximum likelihood estimation procedure. Simulation results indicate that cross-validation may be most reliable, in terms of selecting the closest model to the population model, when the sample size is between 300 and 500 cases (Homberg 1991). Cross-validation procedures are also limited to situations where raw data are available. Bias may be introduced by the sampling procedure used to split the original sample into derivation and validation samples. While procedures are available that sample so as to reduce this bias, they are very computer intensive (Homburg 1991). Finally, while statistics are available to help evaluated cross-validated models, the final selection is a subjective one.

Conclusion

This paper has advocated the use of a multiple model comparison as opposed to a single model test in structural equation modeling. Frequently, an important question in research is not whether a model is correct, but which model is better. The cross-validated model test is also suggested as a useful criterion in evaluating structural equation models. The arguments for comparison of multiple models and cross-validation have been presented based on philosophy of science, statistics, and methodology. Indeed, there is some use of such approaches in marketing studies (e.g., MacKenzie, Lutz, and Belch 1986), but these approaches should receive much more attention from researchers.

Structural equation modeling, a pioneer method in the second generation of multivariate statistics, has contributed a great deal toward marketing research (Fornell 1987). So far, most interest has focused upon developing and learning the methods of estimation and testing, but relatively little attention has been given to the philosophical issues in evaluating models (but see Anderson and Gerbing 1988; Fornell and Yi 1992). For this reason, this paper discussed such issues in assessing structural equation models. Methodology is similar to a horse in that progress in the right direction depends upon the wisdom of the user. More attention should be paid to the aspect of using methodology appropriately. This paper is only an attempt toward that goal, and further efforts are warranted.

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THE IMPACT OF RETAILER USE OF POINT-OF-PURCHASE ADVERTISING ON SALES OF INSTANT-GAME LOTTERY TICKETS

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Abstract

This paper investigates the relationship between retailer use of various types of point-of-purchase (POP) advertising and retailer sales of instant-game lottery tickets. Analysis of individual-store sales and POP advertising suggests that POP advertising that identifies the retailer as a lottery vendor, such as that visible from the outside of the store, may contribute more to instant-ticket sales than an increase in in-store POP items. This study takes into account the placement and visibility of POP advertising items.

Introduction

Few retailers question that in-store, point-of-purchase advertising has some impact on sales, but little evidence exists to quantify the extent of its impact. Although many retailers consider in-store signage and displays to be effective attention-getters (Willmes 1989), the extent to which consumers ultimately purchase products as a result of POP advertising is largely unknown. Moreover, the few studies that address POP advertising typically do so in the context of the entire in-store "marketing environment" (e.g., Bawa, Landwehr, and Krishna 1989) or "atmospherics" (e.g. Kotler 1976, Malhotra 1983). While such perspectives are useful, the specific connection between POP advertising and retail profits may be lost.

At the same time, retailers and consumers alike have seen an increase in both the amount and the variety of POP advertising. For example, expenditures in POP advertising increased 24 percent from $9.5 billion in 1985 to $11.6 billion in 1987 (Barnard 1990), and another 15 percent to $13.4 billion in 1988 (Telzer 1989). Not only has the use of manufacturer-supplied POP signs and displays been at traditionally high levels, "[b]ut retailers -- especially supermarkets -- also are opening their doors to newer, vendor-controlled in-store media, such as shopping cart ads, in-store radio and electronic signage" (Hume 1990). Factors contributing to the increased importance of in-store advertising and other forms of promotion include (Zimmerman 1990, p. 42):

-- a slowdown in population growth and household formation, making it more difficult for a brand or product category to grow;
-- an improvement in manufacturing technology, making it harder for suppliers to sustain a competitive advantage;
-- the rise of dual-income families, lessening the impact of traditional advertising because people aren't home to view/read as many commercials.

For these and other reasons, research is needed to help retailers understand better the effectiveness of POP advertising. This study attempts to contribute to understanding in this area by considering the relationship between individual retailer use of POP advertising materials and actual, individual store sales of the advertised product. In addition to considering various types of POP advertising materials (e.g. door decals, posters, mobiles, change mats), the placement and visibility of these items within the store environment are taken into account, as well as the amount of competing POP advertising. Finally, this study examines the relative influence of these and other variables in the context of different store types.

This paper begins with a review of the literature pertaining to POP advertising. It should be noted that most of the citations are from trade publications since, as mentioned previously, few academic studies in this subject area have been published in the past decade. In this same section, we raise the research questions concerning POP advertising which serve as the focus of the study. We then discuss the advertised product -- the "scratch off," instant-winner game of a state-sponsored lottery. Finally, we describe the methodology used for the study, provide results of the data analysis, and discuss the implications of these results for retailers.

Background

Point of Purchase Advertising

Both the retailing and consumer behavior literatures acknowledge the role of POP advertising materials in creating a retail environment conducive to sales. "...POP displays seek to catch the consumer's attention and interest" (Mowen 1987). In theory, POP advertising is supposed to "stretch" conventional advertising expenditures "by reducing walk-outs without purchase" (Barnard 1990, p. 100). In-store promotions in general are designed to increase short-term sales, enhance customers' perceptions of the store, attract new customers, and encourage existing customers to spend more (Preston and Mercer 1990).

A store's so-called "atmosphere" is thought to be an important component of the retailer's image (e.g. Kotler 1973). Moreover, the retailer's in-store promotion activities, of which POP advertising is a key part, are thought to be among those factors comprising store image (Lindquist 1974). With only a few exceptions (e.g. Preston and Mercer 1990), the academic literature does not address the specific relationship between retailer use of POP

advertising and store sales of the advertised product(s). This is remarkable since the literature generally acknowledges that a majority of consumer buying decisions (60-80 percent, depending on the source) are made in the retail store.

In contrast, the trade literature is replete with POP "how to's" and POP "success stories" (e.g. McClure 1990). For example, a trade journal for credit unions (Minderman 1990) recently encouraged managers to be bold in their use of POP displays. However, similar to the academic literature, such accounts typically fall short of making links between POP advertising use and resultant sales. Referring to a "successful" in-store credit union poster campaign, Minderman (1990) conceded that "[a]lthough new members joined the credit union during the six-week campaign...it's hard to tell how many of those members can be attributed to the poster campaign" (p. 26).

Evaluating the relationship between sales and retailers' use of POP advertising is theoretically simple, but difficult in practice. Numerous factors can confound any examination, including differences in stores (e.g. size, layout, product mix), competitors' promotional activities, and customers themselves. While a controlled experiment could eliminate many of these obstacles to understanding, such an environment would present a new set of obstacles (e.g. controlling for competitors' promotion activities, retailer cooperation) given the nature of POP advertising and its hypothesized impact on the consumer (Donovan and Rossiter 1982). This study attempts to overcome some of these obstacles through the selection of a unique retail product -- state lottery "scratch-off," instant-game tickets -- as a focus for examination. The unique characteristics of this lottery product, which will be discussed below, offer both advantages and disadvantages to answering the following research questions:

Do retailers in the various store-type categories use different types and amounts of POP advertising items?

Does the amount of POP advertising within the retail environment influence sales of the advertised product?

Do placement and visibility of POP advertising within the retail environment have an effect on its relationship to sales?

Does POP advertising have the same impact in different retail environments?

Lottery Games as Retail Products

The "scratch-off," instant-ticket game is one of three lottery products sold in the state in which the data were collected, with the daily "Pick 3" numbers game and the weekly Lotto game also available at the time of study. It is important to point out that retailers included in this analysis sold only the "scratch-off" game, and were referred to by the state's lottery department as INSTANT-ONLY retailers. At the time of data collection, INSTANT-ONLY retailers comprised approximately 65 percent of the state's 5,499 lottery retailers, with approximately 35 percent being ALL-GAMES retailers. Also, at the time of data collection, the most recently introduced game was referred to by the state's lottery department as the PRIMARY instant game, with a new game being introduced approximately every 16 weeks. Separate POP advertising observations and retailer sales data were collected for this PRIMARY game, as well as for all other games introduced prior to the PRIMARY GAME. These categories were combined to create ALL INSTANT GAME sales and POP advertising data, and were used in the analysis presented here.

From the perspective of the government, a state-sponsored lottery game, such as the "scratch-off" game, is a voluntary tax. The "voluntary" label applies because -- unlike other taxes -- citizens are not required to participate in state lotteries (e.g. Clotfelter and Cook 1989). For most states, including the state in which the data collection took place, the government is the only legal "producer" of lottery/gambling products (e.g. Kaplan 1984, Musgrave and Musgrave 1980). This factor alone makes the product unlike others sold in a retail environment. From the perspective of the consumer, however, state lottery products are not vastly different from many other consumer/retail products. Tickets (or, in the case of other games, chances) are sold at thousands of retail stores across the state. Lottery products are developed, positioned, priced, distributed, advertised and otherwise promoted in ways similar to other retail products. While in most states there is no direct competition for state lottery products (especially within the retail environment), many forms of indirect competition exist. This is particularly evident when lottery products are viewed as entertainment products vying for a share of the consumer's attention and discretionary spending dollar. The "scratch-off" ticket is thought to be more of an impulse purchase than other lottery products (Clotfelter and Cook 1989), which could heighten the importance of POP advertising in the retail environment. Also noteworthy is the fact that while a significant number of retail stores in any state with a lottery might sell lottery products, all stores in any category are not lottery retailers. For this reason, lottery POP advertising has the task of identifying the retailer as a vendor of lottery products, as well as creating awareness of and/or reminding the consumer to purchase the product.

In many lottery states, including the state in which the data were collected, approximately 35 percent of lottery revenues are returned to the government; roughly 50 percent of sales are returned to consumers in the form of "payouts," with 10 percent being used for lottery administration. The retailer retains the remaining five percent (Bowman and Cowles 1990), and only in rare exceptions does the retailer's share change. By law, the price of the instant-game lottery ticket (one dollar in this case) also remains unchanged across time and various

retail environments. Finally, as mentioned earlier, within the retail stores included in this study, consumers could neither purchase nor switch from competing brands of this product because no other lottery/gambling product was available for sale. Together, these factors were thought to offer an opportunity to link more closely than other situations, retailer use of POP advertising and sales of the advertised product.

Much of what is known about consumers of lottery products comes from the economics and finance literatures. For the most part, academic journals in marketing, retailing, advertising, and consumer behavior have not commented on state lottery products and issues, with only a few exceptions (e.g. McConkey and Warren 1987). State lotteries tend to be controversial (e.g. Clotfelter and Cook 1989, Kaplan 1988), with much of the controversy focusing either on the lotteries' alleged regressive nature or on the use of lottery revenues. Despite some unique characteristics and issues, the state lottery product which is the focus of this study (instant-game tickets) is thought to offer a number of advantages: lack of direct competition, no other lottery products for sale in the same retail environment, fairly uniform expenditures in the traditional advertising media, and easily identified POP advertising.

Methodology

Sample Design/Data Collection

The sample of retailers for the study was comprised of 272 of the state's total 3,601 INSTANT ONLY lottery retailers at the time of data collection. Sample retailers were selected randomly from five store-type categories to be representative of the population of state lottery INSTANT-ONLY retailers: Large Grocery (24/8.8%), Small Grocery (25/9.1%), Small Convenience (102/37.5%), Large Convenience (37/13.6%), and Other Store Types (84/30.9%). Store type was felt to be an important variable for two reasons: 1) The state lottery's sales force reported that INSTANT-ONLY retailers in the various categories used POP advertising in varying amounts, and 2) the literature suggests that POP advertising might have a different impact in different retail environments (e.g. Donovan and Rossiter 1982).

The literature also suggests that the placement and visibility of POP advertising should have an impact on its relationship to sales. Since important roles of POP advertising include attention-getting, creating awareness, and reminding, POP advertising items not placed in a readily visible location should not be as effective. For this reason, researchers collected information about the placement and visibility of POP advertising in each retail store. Also related to the issue of effectiveness is that of competing POP advertising. Due to the uniqueness of the lottery product, the POP advertising of a direct competitor would not be present in the retail environment. However, because all POP advertising -- regardless of the advertised product -- competes for the attention of the consumer, researchers collected data concerning the presence of competing POP advertising items in each retail store. Finally, because store size could also impact POP advertising effectiveness and/or lottery sales, researchers reported the number of cash registers within the retail environment as an indicator of store size.

Direct, unobtrusive observation of POP advertising materials was used to collect primary data for this study. A comprehensive checklist for assessing the presence of specific, state lottery POP items, as well as their placement and visibility within retail stores, served as the data collection instrument. A commercial vendor of marketing research services performed the actual data collection for the study. The data collection instrument and procedures were pretested in five stores during the week of February 11, 1991; minor revisions were made subsequently. All store visits took place between February 14 and March 6, 1991, a time frame which corresponded to weeks 5-through-7 (out of 16 weeks) of the PRIMARY GAME. Secondary data (e.g. individual store sales, reported in actual dollar amounts; retailer density, a variable created by dividing the county's 18+ population by the number of lottery retailers; the 18+ population and per capita income of the county in which each retail store was located, reported in thousands) were provided by the state lottery department. The 18+ population was considered relevant, since lottery products can only be purchased by consumers over the age of 18. Per capita income was also considered relevant, given repeated allegations in the literature concerning regressivity (e.g. Karcher 1989).

Data Analysis

A variety of analytical tools were used to consider the research questions set forth, including simple descriptives, analysis of variance and regression analysis. For the most part, the impact of POP advertising on sales was examined by looking at the number of POP advertising items in the retail environment (either weighted according to visibility, or unweighted). This approach assumes an equal impact for all POP advertising types, and while this assumption may be debatable, it is consistent with the fact that POP advertising is designed specifically to catch the consumer's eye and to serve as the final "push" for those consumers inclined to purchase.

Simple descriptive statistics (not shown here due to space constraints) confirmed that retailer use of POP advertising varies by store type. Among other findings: In most cases, a larger percentage of both small and large convenience stores was found to use the various POP advertising types compared to average use. For example, 14.0 percent of all INSTANT-ONLY retailers were observed to use the aluminum curb sign; more than 20 percent of small and large convenience stores used this POP item. For subsequent "weighted" analyses, individual POP items were weighted according to placement/visibility: 1.0-"stands out/noticed right away;" 0.5-"somewhat

visible/found, but had to look;" and 0.1-"barely visible/found, but had to look hard." While these weights could be viewed as somewhat arbitrary, they can also be defended as appropriate given the purpose of POP advertising. Not surprising is the fact that, overall, retailers overwhelmingly placed POP items so they would "stand out" or be "noticed right away."

Table 1 shows the results of a ONEWAY analysis of variance, with total POP advertising items (weighted and unweighted) as the dependent variables and store type as the independent variable. The overall unweighted average of total lottery POP items was 7.60, while the overall weighted average was 4.71. This table provides additional evidence that, as anticipated, retailers in the five store-type categories use different amounts of POP advertising, although perhaps not to the extent anticipated, particularly in the case of weighted totals. Duncan's test of significant differences was used to explore between-group differences, as indicated. "Other" store types used the fewest number of POP items; this held true both for weighted and unweighted totals of POP items. With regard to the weighting, the largest difference between weighted and unweighted totals was observed for large grocery stores. These and other findings will be discussed below.

Tables 2 and 3 consider the impact of lottery POP advertising on individual store sales during the 3-week data collection period. Table 2 shows the results of an analysis of covariance, with ALL INSTANT GAME sales as the dependent variable, store type as the independent variable, and a number of other variables -- including lottery POP advertising -- serving as covariates. The average ALL INSTANT GAME sales of all stores was $2,437.50, with adjusted deviations from the overall average reported for each store type. In other words, results suggest that, as anticipated, store type has a significant impact on lottery sales, even when the effects of the other influencing variables are taken into account. The analysis seems also to provide additional evidence of regressivity, with per capita income negatively and significantly related to store sales. Finally, the table shows that the amount of lottery POP advertising used by individual retailers has a significant, positive relationship to sales.

One shortfall of the type of analysis presented in Table 2 is that it assumes the effect of the covariates is the same for all store types. This may not be a reasonable assumption, given the large differences among store-type categories and the role that POP advertising is supposed to play within those diverse environments. Table 3 shows the results of five separate regression analyses -- one for each store type -- with ALL INSTANT GAME sales as the dependent variable and the six influencing variables serving as independent variables. A different picture of the impact of POP advertising and the other variables emerges, with only one of the five predictive models (small grocery stores) being significant overall. The single independent variable which appears to predict INSTANT GAME sales at small grocery stores is lottery POP advertising. The number of cash registers was significantly and negatively related to sales at large grocery stores, although the model as a whole did not significantly predict sales in this category.

Discussion

With regard to the first research question, results indicate that differences do exist across retailer store-type categories with regard to the use of POP advertising. However, when the visibility of individual items is taken into account, some of these differences disappear, especially in the case of large grocery stores. Among a number of possible explanations: 1) The size and layout of these stores could make it difficult for retailers to find highly visible locations for POP advertising which would be "noticed right away" by customers, and 2) because of the importance of POP advertising in other (perhaps more profitable) product categories, lottery products may not be given a high priority when selecting POP items for choice locations. Limited support for the first of these explanations is found in Table 3, which reports a significant and negative relationship between INSTANT GAME sales and the number of cash registers within large grocery stores -- a variable which was intended to serve as an indicator of store size. In short, POP increasingly may get "lost" as the size of the grocery store increases.

TABLE 1
USE OF POP ADVERTISING BY STORE TYPE:
ALL POP CATEGORIES COMBINED

Store Type Category	Unweighted POP Mean*	Weighted POP Mean*
1. Large Grocery (n=24)	12.04	4.48
2. Small Grocery (n=25)	8.48	5.76
3. Small Convenience (n=102)	7.91	5.18
4. Large Convenience (n=37)	7.86	5.23
5. Other Stores (n=84)	5.57	3.65

* Oneway analysis of variance, Duncan's test of significant differences, p=/less than .05. Unweighted POP Means: Group 1 larger than 2, 3, 4, and 5; Groups 2, 3, and 4 larger than 5. Weighted POP Means: Groups 2, 3, and 4 larger than 5.

The remaining research questions may be addressed by considering results shown in Tables 2 and 3. First, there appears to be some positive relationship between the number of lottery POP items used and INSTANT GAME sales. Simple correlations among the two variables, not reported here, were also positive and significant. Although results depicted in Tables 2 and 3 are based on weighted lottery POP advertising totals,

the results were similar and also significant for unweighted totals, even though the relationships were not as strong. This could be interpreted as evidence for the importance of visible placement for POP advertising.

With regard to the last research question, results presented in Table 3 support what intuition suggests: 1) POP advertising combined may not have the same impact on sales across various retail environments, and 2) store type may well exert the most influence on the sale of INSTANT GAME lottery tickets. In other words, factors such as the purpose of the shopping trip, the state of mind of the consumer in the retail environment, product mix and specific retail offerings, store design and layout, etc. may explain the variation in sales across retail stores to a greater extent than the amount and visibility of POP advertising within the store environment.

This would seem to place more emphasis on POP advertising that identifies the retailer as a lottery vendor, such as that visible from the outside of the store. Moreover, it is quite possible that the relationship between this type of POP advertising would be categorical, as opposed to one based on the number of POP items: The retailer is either identified as a vendor of lottery products or is not. All retailers in this study's sample had at least one lottery POP advertising item visible from the outside of the store. Interestingly, when separate analyses were performed with weighted totals of POP advertising visible from the outside of the store as an independent variable separate from those visible only from the inside (similar to the analysis in Table 3), inside lottery POP advertising remained highly significant (p=.000) in the case of small grocery stores, and surfaced as a significant predictor variable in the case of large convenience stores (p=.010). As anticipated, the amount of outside POP advertising was not significant in any case, providing some support for the hypothesized categorical relationship, although this could not be tested since no retailer was without at least one lottery POP item visible from the outside of the store. Interestingly, among the store types included in this study, small grocery and large convenience stores might be considered more similar in certain respects than any of the other store types.

The findings presented here hardly can be considered definitive evidence of the impact of POP advertising on the sales of the advertised product. The uniqueness of the INSTANT ONLY lottery product is a limitation, although future research could focus on retailers who sell all lottery products or, certainly, those who use POP to help sell other retail products. As optical scanner technology proliferates into a wider range of store types, opportunities to examine more closely the relationship between POP advertising and sales in different retail settings will increase. Nevertheless, it appears safe to say that retail POP advertising probably has a positive impact on sales; that this impact more than likely varies across store type; and, that more POP advertising is not necessarily better for retail sales of the advertised product.

TABLE 2
ANALYSIS OF COVARIANCE: LOTTERY SALES BY STORE TYPE (INSTANT ONLY RETAILERS, N=272)

Overall average sales, 3-week period: $2,437.50

Store Type	N	Adj. Deviation From Average
Large Grocery	24	$ -982.80
Small Grocery	25	+125.19
Small Convenience	102	+528.97
Large Convenience	37	+1,884.16
Other Store Types	84	-1,228.70

Influencing Variables	Significant Relationship	Regression Coefficient
Type Store	YES*	(Main Effect)
Retailer Density	NO	.619
County Population 18 +	NO	-.001
Per Capita Income	YES**	-.105
Number of Cash Registers	NO	-97.093
Competing POP Advertising	NO	13.010
Lottery POP (Weighted)	YES*	207.107

Overall significance/R-Square: .001/.254
* p/less than .001
** p/less than .05

TABLE 3
REGRESSION ANALYSIS: LOTTERY SALES BY STORE TYPE (INSTANT ONLY RETAILERS, N=272)

Independent Variables	Lg. Groc.	Sm. Groc.	Sm. Conv.	Lg. Conv.	Other
	Regression Coefficient (Significance of t-value)				
Retailer Density	-1.64	1.44	.11	1.01	.06
Population 18 +	.01	.00	.00	.01	.00
Per Capita Income	.11	-.17	-.03	-.26	-.02
No./Cash Registers	-408.9 (.04)	-4.2	600.0	708.5	-187.0
Competing POP	45.0	-128.1	-25.7	-72.3	10.9
Lottery POP (Wgt.)	1.9	690.1 (.00)	21.4	351.8	-5.4
Overall Sig.	.115	.001	.930	.271	.862
R-Square	.21	.56	-.04	.05	-.04

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(Note: A complete listing of references, as well as tables referenced but not included due to space constraints, are available upon request)

THE APPLICATION OF THE ANALYTIC HIERARCHY PROCESS IN SALES PERSONNEL RECRUITMENT

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Abstract

Recruitment and hiring is a complex process in which multiple criteria are applied in evaluating candidates for positions. The application of the Analytic Hierarchy Process enables recruiters to prioritize their criteria, rank potential candidates in a consistent manner, and thorougly document the process. The relative importance of criteria and the relative extent of satisfaction of the criteria are assigned weights which are propagated to give an overall ranking of the candidates and to generate a measure of the consistency of the evaluation.

Introduction

Marketing strategy in a global competitive market requires a business to have an effective, efficient salesforce. For these reasons, the identification and recruitment of sales personnel is of central strategic importance. Each industry and organization must determine what traits, background, and education are required for their sales personnel to succeed in its unique environment. Failure to clearly articulate the requirements of sales personnel can lead to costly turnovers in staff.

It is difficult to classify the individual characteristics that are primary indicators of success. Many of the surveys and anecdotal reports identify criteria that are "personality" characteristics. In addition to having a personality suitable for a sales career, many industries will also have specific educational requirements and mandatory levels of experience.

Since many criteria are applied in hiring sales staff, the prioritizing of criteria and the ranking of candidates according to the criteria are persistent problems. In order reduce arbitrariness and capriciousness in hiring, the explicit documentation of the priorities and rankings becomes necessary.

The Analytic Hierarchy Process (Saaty, 1980) provides a framework for decomposing the decision process, generating indicators, and documenting the decision process.

The Analytic Hierarchy Process

The Analytic Hierarchy Process is a framework by which a person can organize a complex problem into simpler structures that allow examination of factors a few at a time. It depends only on pairwise comparison judgments which are basically qualitative. Yet, for every qualitative judgement, the user is required to specify a numerical weight that is used ultimately to give an index number consistent with the method in order to guide decision making. In making these judgments, the evaluator is required to reflect on his or her choices and justify them. When they are inconsistent, the built-in statistical tests flag the inconsistencies and inform the user of the fact that there are inconsistencies in his or her evaluation. Thus, the decision making process is made less capricious and arbitrary. As a side benefit, the decision makers find themselves reflecting on their priorities by which they make their decisions.

There are three governing principles applied in the Analytic Hierarchy Process -- decomposition, comparative judgments, and the synthesis of priorities. The decomposition of a problem into its constituent parts is done by using a hierarchical model. One approach at decomposing a problem using a hierarchy is to begin with the focus of the problem, the overall goal, and to identify criteria that bear on the focus. The process continues by examining each of the criteria and identifying sub-criteria that relate to the satisfaction of each of the higher level criteria. The process proceeds in a downward manner finally resulting in the identification of the alternatives that are being examined as possible solutions by which the overall goal is to be achieved. At every stage in the Analytic Hierarchy Process, a pairwise comparison is made among all of the criteria, sub-criteria, etc. in order to get the numerical indices by which the final weights are calculated for each of

the proposed solutions.

The pairwise comparisons among alternatives are stated as numerical values from 1 to 9 and their reciprocals. For example, if factor A is very much more important than factor B, a weight of 7 is given to the AB comparison. The BA comparison is simply the reciprocal, 1/7, which states that factor B is very much less important than factor A. If the factors have the same relative importance, they are assigned a value of 1. Since the problem has been broken down hierarchically, the number of comparisons are reduced to only those that are related to each other. Furthermore, since the reciprocal relationship is employed, the number of comparisons that need to be made among n factors is reduced to (n-1)n/2. For 6 factors, the number of comparisons that need to be judged is only 15.

The principle of synthesis of priorities is applied by multiplying the scores generated for each alternative in a lower level by the priority weight of the criterion at the next higher level. The process is continued in a bottom-up manner until the top most level, the goal, is reached. The cumulative scores then reflect the overall suitability of the alternatives at the lowest level in achieving the goal.

An important by-product of the use of numerical indices is the calculation of a measure of consistency which can by used by the investigator to re-examine the data that had been recorded and to seek additional information (or restate the questions asked), if warranted. The consistency index is expressed as a percent. A value below 10% is considered acceptable. A value between 10% and 20% is tolerable. Values above 20% are unacceptable.

The Analytic Hierarchy Process can be programmed in a high level computer language or by using a spreadsheet. Commercial products are available in which all of the algorithms and numerical approximations have been already implemented. All the user needs to do is insert the criteria, weights, and the factors from the pairwise comparisons. For this paper, a demonstration version of DAS -- Decision Analysis System from Armada Systems, P.O. Box 637, Station A, Downsview ONTARIO M3M 3A9 CANADA was used.

Results

Suppose that a sales position is to be filled (the goal) and that there are three candidates for the position -- Smith, Jones, and Brown. These candidates are to be evaluated according to their education, their experience, their performance on an interview, and their performance on a standardized psychological/personality test. (A sketch of the hierarchical system applied here is indicated in the accompanying figure.) At this point, this scenario is quite ordinary. However, instead of using inconsistent evaluations based on feelings and intuitions, the procedure will be quantified using the Analytic Hierarchy Process.

An additional side-effect of using the hierarchical decomposition of the problem is that the pairwise comparisons that need to made need not be made by the same evaluators. One group can make the determination of the relative weights of criteria. Persons in charge of evaluating educational backgrounds can make the comparisons among the candidates based on their own professional judgments. Those administering the psychological tests can make their own judgments, and so on. The only requirement that binds the work of the different groups of evaluators is that their judgments be reported in a consistent manner. A greater degree of objectivity is built into the activity by separating the overall decision making function for the details of the evaluation of candidates at each step in the hiring process. There is less likelihood that one factor (for instance, a superb performance in an interview) may suddenly take on a weight, for the one candidate, inconsistent with its weight applied to all other candidates.

We begin by examining the relative importance of the four criteria upon which the decision to make the offer of the sales position will be based.

The four criteria are evaluated by performing a pair comparison among each different pair. A sample pair comparison is reported in **Table I** with a qualitative description that may be applied to each comparison. The reverse comparison is given a parameter that is the reciprocal of the value recorded. For instance, the Interview is given a moderately greater weight than Education (a value of 3). Education compared to the Interview is then assigned a value of 1/3. A completed matrix is given below the results from the pairwise tests.

From these parameters, a set of weights is calculated according to the method. These weights are used to multiply the indices in the corresponding categories for each of the candidates. The weights are recorded as well in **Table I**. The Interview counts the most, more than the

other criteria combined based on the parameters assigned in the pair comparisons. The weights have been normalized so that they total 100. The overall level of inconsistency calculated from these factors is less than 10% which is considered to be acceptable.

The candidates are compared against each other according to the four criteria: Education, Experience, Interview, and Test. The results of the pairwise comparisons and relative weights corresponding to each set of comparisons are recorded in Tables II through V.

An inconsistency level greater than 10% is considered to be only tolerable. An inconsistency level for the Interview comparison is 11.7%. Since this exercise is small, it is easy to locate the source of inconsistency. The higher inconsistency reflects the fact that in the comparison between Brown and the other two candidates, Smith and Jones appear to be equal, at least with respect to Brown. However, the comparison between Smith and Jones distinguishes between them. The calculation of an inconsistency percentage can lead one to return to the comparisons to either re-evaluate them or else to decide retain the parameters assigned and accept the level of inconsistency as a reflection of the inherent errors associated with subjective judgments. The same inconsistency is found when the candidates are compared on the Test. The inconsistency in this calculation is between Jones and Brown who appear to be equivalent with respect to Smith, but yet are distinguished in their own pairwise comparison.

When the number assigned to each criterion for each candidate is multiplied by the weight of the criterion towards the goal and summed, a composite index for each candidate is found. The higher the value, the more suitable the candidate based on the criteria and relative importance of the criteria. When these numbers are propagated through the hierarchical breakdown of the problem, the following indices are calculated for each person: Brown = 53, Smith = 31, and Jones = 16. According to the stated criteria, Brown should be the best candidate of the group and should be offered the position.

If we continue the example further, suppose that instead of sales position in which interpersonal skills were the most important criterion (as indicated in the weight assigned to the Interview), a person is to be hired in an entry level technical position for which the Interview is not as important, but the candidates Education, Experience, and performance on a Test of technical skills are more important criteria.

The four criteria are re-evaluated using pair comparisons and the results are recorded in Table VI. The level of inconsistency only tolerable (11.5%). A major source of the inconsistency is the claim that the interview is equal to the test in its own pairwise comparison. Yet when the interview and the test are compared separately against education or experience, they are given different parameters.

If the pairwise comparisons among the candidates that were used before are retained as is, then the overall ranking of the candidates will change. The numbers awarded to each candidate based on the new relative weights of the criteria are Smith = 39, Jones = 26, and Brown = 35 with an acceptable inconsistency of 8.5%. On these new criteria, Smith should be the best candidate with Brown a close second.

Managerial Implications

The implementation of the Analytic Hierarchy Process in the recruitment of personnel requires a significant paradigm shift in those who do recruitment. Often the recruitment of an employee among a number of applicants can appear to be arbitrary and capricious. Criteria, when they are stated, seem to have no genuine applicability. Rather, they appear to be platitudes. The "gut feelings" and initial impressions of those doing the evaluation seem to dominate the evaluation process. Finally, the making of an offer can often become a decision resulting from negotiations among a number of managers, none of whom can provide any semblance of objectivity in his or her judgments.

The procedure discussed in this paper has the benefit of requiring (1) explicitly stated criteria, (2) internal consistency checks, and (3) internal documentation applicable to the procedure. By providing a means of measuring qualifications, arbitrariness and caprice can be reduced and the frequent feeling of frustration a manager can experience in comparing a set of candidates for a position, especially when the group will have individuals who have strengths and weaknesses in different proportions. The internal consistency checks are especially important since they allow the manager to monitor his own evaluative performance and the criteria or questions that are used in performing the evaluation. Unclear or ambiguous

evaluative criteria can become spotted and resolved. The documentary evidence that can be generated in applying the method can be used in the organization to monitor its own criteria and hiring objectives. Poor judgment in the selection of criteria, even though they may be internally consistent and consistenly applied, will result in the hiring of persons that may well be ill-suited for the position. In order for the organization to monitor its own internal performance, the method provides a means by which it can review its own internal procedures and priorities without being restricted to merely anecdotal evidence.

Conclusion

This brief example shows how the recruitment and hiring of sales personnel can be quantified and documented by use of the Analytic Hierarchy Process. Inconsistencies can be flagged and dealt with. Caprice can be reduced, if not eliminated.

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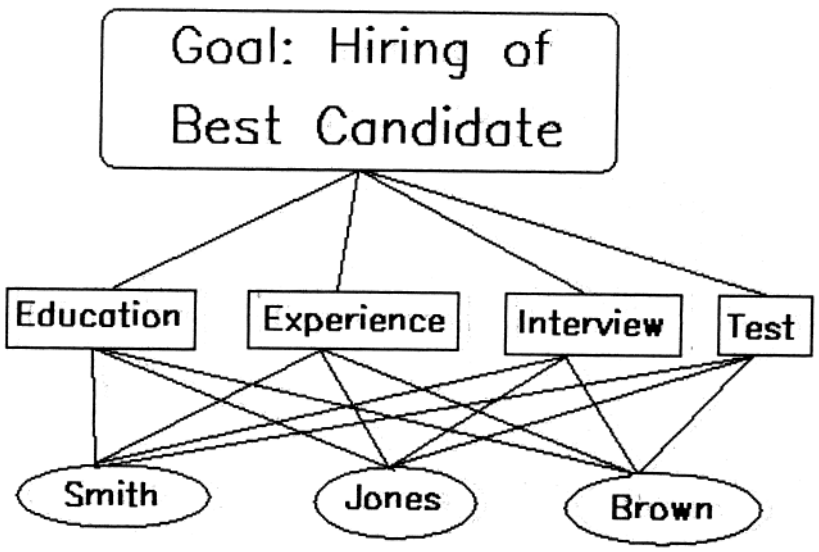


figure: Hierarchical breakdown of the recruitment problem

TABLE I.
PAIRWISE COMPARISON OF EVALUATIVE CRITERIA:
SALES POSITION

Comparison	Parameter	Significance
Education = Experience	1	equal
Interview > Education	3	moderate
Test > Education	3	moderate
Interview > Experience	7	very strong
Test > Experience	3	moderate
Interview > Test	5	strong

Appearance of the Matrix

	Education	Experience	Interview	Test	Weight
Education		1	1/3	1/3	10.8
Experience	1		1/7	1/3	8.1
Interview	3	7		5	59.9
Test	3	3	1/5		21.1

Inconsistency 9.4% (acceptable)

TABLE II
PAIRWISE COMPARISON OF CANDIDATES: EDUCATION

Comparison	Parameter	Significance
Smith > Jones	5	strong
Smith = Brown	1	equal
Brown > Jones	3	moderate

Appearance of the Matrix

	Smith	Jones	Brown	Weight
Smith		5	1	48.1
Jones	1/5		1/3	11.4
Brown	1	3		40.5

Inconsistency 2.5% (acceptable)

TABLE III
PAIRWISE COMPARISON OF CANDIDATES: EXPERIENCE

Comparison	Parameter	Significance
Jones > Smith	5	strong
Smith = Brown	1	equal
Jones > Brown	7	very strong

Appearance of the Matrix

	Smith	Jones	Brown	Weight
Smith		1/5	1	13.4
Jones	5		7	74.7
Brown	1	1/7		11.9

Inconsistency 1.1% (acceptable)

TABLE IV
PAIRWISE COMPARISON OF CANDIDATES: INTERVIEW

Comparison	Parameter	Significance
Smith > Jones	3	moderate
Brown > Smith	5	strong
Brown > Jones	5	strong

Appearance of the Matrix

	Smith	Jones	Brown	Weight
Smith		3	1/5	20.2
Jones	1/3		1/5	9.7
Brown	5	5		70.1

Inconsistency 11.7% (tolerable)

TABLE V
PAIRWISE COMPARISON OF CANDIDATES: TEST

Comparison	Parameter	Significance
Smith > Jones	3	moderate
Smith > Brown	3	moderate
Brown > Jones	3	moderate

Appearance of the Matrix

	Smith	Jones	Brown	Weight
Smith		3	3	58.4
Jones	1/3		1/3	13.5
Brown	3	3		28.1

Inconsistency 11.7% (tolerable)

TABLE VI
PAIRWISE COMPARISON OF EVALUATIVE CRITERIA:
TECHNICAL POSITION

Comparison	Parameter	Significance
Education > Experience	3	moderate
Education > Interview	3	moderate
Education = Test	1	equal
Experience > Interview	3	moderate
Experience > Test	1	equal
Interview = Test	1	equal

Appearance of the Matrix

	Education	Experience	Interview	Test	Weight
Education		3	3	1	40.2
Experience	1/3		3	1	23.2
Interview	1/3	1/3		1	13.4
Test	1	1	1		23.2

Inconsistency 11.5% (tolerable)

THE INFLUENCE OF THE FIRM'S INTERNAL ENVIRONMENT ON THE JOB COMMITMENT AND SATISFACTION OF EMPLOYEES IN NEW PRODUCT DEVELOPMENT

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Abstract

This study explored the influence of the firm's perceived internal environment on the job commitment and satisfaction of people employed in new product development units. Our results indicate that, at least in the Fortune 500 manufacturing and service companies, different factors are likely to lead to high job commitment and satisfaction.

Introduction

The last few years have seen increasing research interest in the factors that influence the new product development activities of a firm. Not only do new products contribute more than 30% of the average company's profits (Booz-Allen and Hamilton 1982), but new product development programs seem necessary for both growth and higher profitability as well (Buzzell and Gale 1987; Morbey 1988). Consequently, researchers have been particularly devoted to identifying the factors that account for new product success (e.g., Cooper 1982; Cooper and Kleinschmidt 1987; Crawford 1977; Link 1987). What has generally been neglected, however, is consideration of how the firm's internal climate may influence the productivity of new product development units. This is so despite the recognition that the productivity of new product development teams could potentially be as decisive in determining the firm's bottom line, as the success rate of its new product introductions (Morbey 1988; Burger 1989).

Thus, our purpose here is to make a beginning at exploring product development climate and its relationship to particular variables affecting product development outcomes. Specifically, in this study, we attempt to explore how the firm's internal environment influences the job satisfaction and commitment of people employed in new product development. Doing so is important because of the uncertainties associated with generalizing research with people from functions such as accounting, production, and sales, to people employed in new product development. Although job satisfaction and commitment influence organizational productivity and innovation with such employees (e.g., Abbey and Dickson 1983; DeCotiis and Summers 1987), these findings may not be generalizable to new product development employees who tend to be somewhat more unconventional, internally driven, independent, and better educated than typical company employees (e.g., Herzberg 1985; Feldman 1987; Lucas and Bush 1988; Hisrich 1990).

Internal Environment or Climate

Although somewhat controversial (Hellriegel and Slocum 1974; Johnston 1976; Siegel and Kaemmerer 1978; Mailler 1986), most researchers agree that a work unit's environment is defined by the attributes along which employees evaluate the work unit (Hellriegel and Slocum 1974). Table 1 summarizes these attributes.

Table 1
Major Attributes of Organizational Climate.

	Attribute	Description
1.	Open communication	Employees feel comfortable in discussing issues with managers, and receive sufficient feedback on performance
2.	Growth opportunities and Rewards	There are ample growth opportunities, with promotions and rewards being adequate and based on merit and performance.
3.	Democratic	People are treated as equals despite differences in status and hierarchical position
4.	Procedures	Employees feel compelled to use procedures that are inappropriate or self-defeating.
5.	High standards	Work goals or standards are challenging but attainable.
6.	Role clarity	Management clearly communicates expectations and employee responsibilities.
7.	Autonomy	Employees control their own work functions
8.	Collegiality/ Trust	Employees trust one another, with cooperation and friendliness being the norm.
9.	Task variety	Work is intellectually challenging, interesting, and has variety.
10.	Creativity	Management supports creativity and innovativeness.
11.	Flexibility	Management is flexible and responds quickly to exigencies.
12.	Managerial supportiveness	Management supports risk-taking by employees.
13.	Motivation	In general, employees are highly motivated, stressing growth and good performance.

As this table shows, there are thirteen variables or dimensions along which employees seem to evaluate or perceive their work environments. Although some researchers have suggested other climate variables too, the differences seem to be semantic rather than substantive (Johannesson 1973; Hellriegel and Slocum 1974; Mailler 1986). Thus Table 1 seems to be a fair representation of the major climate variables that have been found to influence employee behavior.

The variables identified in Table 1 have been linked to a variety of employee behaviors such as productivity (e.g., Lawler, Hall, and Oldham 1974), stress and absenteeism (e.g., Bennett 1989), turnover (e.g., Sutton and Rousseau 1979), and motivation

(e.g., Tyagi 1982) and innovation (e.g., Souder 1987). In keeping with these findings, researchers have been particularly interested in two variables--job satisfaction and commitment--that seem to intervene in the climate-behavior relationship. For example, DeCotiis and Summers (1987) found that workers who thought they had high job autonomy were more satisfied and committed to their jobs. Such employees thus also tended to be more productive and less likely to leave the company, than workers who thought they had relatively lower job autonomy. Other researchers too have reported similar results regarding job satisfaction and commitment (Pritchard and Karasick 1973; Lawler, Hall, and Oldham 1974; York et. al. 1988; Bennett 1989). In fact, because job satisfaction and commitment tend to be highly correlated, and play somewhat similar intervening roles in the climate-behavior relationship, some researchers seem to suggest that these are identical rather than distinct constructs. But, as Modway, Steers, and Porter (1979) and Welsch and LaVan (1981) discuss, while correlated, these two constructs are conceptually distinct and independent. They are not only affected by different factors, but also differ in the effects they have. Conceptually, satisfaction represents a person's affective response towards the work place. Job commitment on the other hand implies that the individual agrees with the organization's goals and values, and is willing to devote the effort required to fulfill these goals (DeCotiis and Summers 1987).

Research Issues

Very few studies have explored how the firm's climate influences the job satisfaction and commitment of people employed in new product development units. But, there is some research showing that climate variables such as, role clarity and flexibility, collegiality, managerial support, and communication, may influence the innovativeness of groups involved in new product development (Souder 1987). In addition, research in organizational behavior indicates that people who are satisfied and committed to their jobs, are more likely to suggest innovative improvements in production and management (Eisenberger, Fasolo, and Davis-LaMastro 1990). Although suggesting innovative management methods is not identical to developing innovative products, in the absence of other evidence, we can surmise that job satisfaction and job commitment are both likely to be influenced by climate variables. For example, when employees are unclear regarding what is expected of them (low role clarity), they may be unable to develop unambiguous work goals. Because working without goals tends to be difficult, employees who are unclear about their roles, are unlikely to be highly committed to their jobs (DeCotiis and Summers 1987). Similarly, when the environment is perceived to be hostile or untrustworthy (low collegiality), people may feel threatened or alienated from their work environments, producing feelings of negative affect, or dissatisfaction. Such alienation from the work unit, is also likely to cause individuals to purse their own, rather than organizational goals. That is, commitment to the organization is also likely to be low. Thus, in general, a strong case can be made that people are more likely to be satisfied and committed to their jobs when trust, communication, managerial support, role clarity, and autonomy, are high, rather than when they are low (Hellriegel and Slocum 1974; Martin 1981; DeCotiis and Summers 1987)

In a similar vein, a strong argument can be made for significant relationships between the remaining factors in **Table 1**, and job commitment and satisfaction. For example, people are more likely to accept, and work towards attaining organizational goals, when doing so helps them attain their personal goals. Consequently, job commitment should be much higher in a firm that offers adequate growth opportunities, than in a firm that does not. Since similar arguments can be made for relationships between the other factors shown in **Table 1**, and job commitment and satisfaction, we expect all the factors identified in this table to influence job commitment and satisfaction (Hellriegel and Slocum 1974; Lawler, Hall, and Oldham 1974; Martin 1981; Abbey and Dickson 1983; DeCotiis and Summers 1987).

Methodology

The results reported in this study are derived from a larger study on new product development in the Fortune 500 manufacturing and service companies. The study was conducted with non-managerial employees, in the new product development programs of these companies. Using a commercially available list of names and addresses we contacted the chief marketing executives of the Fortune 500 list of manufacturing and service companies, and requested their help in identifying the executives who were responsible for new product programs in their organizations.

Three copies of the questionnaire used in this study, were then mailed to the new product development managers identified by the chief marketing executives. We requested these managers to distribute the questionnaires to non-managerial employees in their new product development units. A total of 180 non-managerial employees such as, product development chemists, product coordinators, and product development engineers, from 91 companies, responded to the survey.

The questionnaire used in this study contained a variety of questions concerning the company, its environment, and its new product development program. It was initially developed by conducting a review of the management, organization behavior, and new product literatures. After testing it for clarity with undergraduate marketing students at a large state university in the South West, we pretested the revised version with people in new product development. Their comments and feedback were then used to finalize the questionnaire, and develop the measures discussed below.

In order to measure employee perceptions of the work environment, the scales that researchers such as Pritchard and Karasick (1973) and Newman (1977) had previously developed were modified to meet the needs of our subject group. Overall the questionnaire contained 57, five point, climate items. For each item, respondents had to indicate how characteristic the item was of their firm (1 = not at all, 5 = to a very large extent).

Finally, we measured job commitment and satisfaction with four item, and two item, scales respectively, that had also been developed by other researchers (Hunt, Chonko, and Wood 1985). The job commitment items measured the likelihood that employees would leave their current positions, while the satisfaction items measured overall satisfaction with the respondent's current job.

TABLE 2
CLIMATE ATTRIBUTES (FACTORS) EXTRACTED BY THE FACTORS ANALYSIS ON CLIMATE MEASURES, AND THEIR CORRELATIONS WITH JOB SATISFACTION AND COMMITMENT

Attribute	Variance Explained	# of Loading Items	Correlation with* Satisfaction	Commitment
1. Open communication	27.6	8	.44	.33
2. Growth opportunities and Rewards	5.3	7	.58	.35
3. Democratic	4.5	6	.45	.37
4. Inappropriate procedures	3.9	4	.33	.31
5. Challenge	3.4	4	.25	.23
6. Role clarity	3.2	3	.25	.24
7. Autonomy and control	3.0	3	.36	.29
8. Collegiality/Trust	2.8	3	.09	.11
9. Task variety	2.6	2	.35	.24
10. Creativity	2.5	2	.26	.16
11. Flexibility	2.4	2	.19	.09
12. Supportiveness	2.2	2	.27	.27
13. Employee motivation	2.0	1	.21	.21

*Note: All correlations above 0.2 are significant at $p < .01$.

Results

Factor analysis of the climate variables yielded the dimensions indicated in Table 2. As this table shows, new product employees tend to organize their perceptions of the work environment along the same dimensions as employees in other organizational functions. Eleven of the thirteen factors identified in Table 2 were significantly correlated with job commitment and satisfaction ($p < .01$). Only trust and managed flexibility did not influence either job satisfaction or commitment. The insignificant correlations between trust and job commitment and satisfaction were surprising. Research with clerical and production workers, as well administrators, has shown that trust and friendliness between coworkers are important determinants of commitment, and particularly job satisfaction (e.g., Martin 1981; York 1988). Perhaps, because people in new product development units tend to be relatively more independent and internally driven (e.g., Herzberg 1985; Feldman 1987; Lucas and Bush 1988; Hisrich 1990), than employees in other functions, trust is not as important to them, as to other employees. Similarly, we may have found that managerial flexibility was not important in determining the job satisfaction and commitment of employees in new product development, because such activities have long time horizons. Consequently, new product development requires considerable delegation and little managerial intervention on a daily basis, relative to functions such as production or marketing. Thus, managerial flexibility and swiftness in responses to crises, may be relatively unimportant to new product development employees.

Overall, except for these two exceptions, new product employees seem to motivated by the same factors as employees in other organizational functions. But, in order to draw useful managerial implications, it was considered necessary to present our results more parsimoniously. In order to reduce the data to the smallest number of items that predict commitment and satisfaction, we conducted two stepwise regression analyses, with job commitment and satisfaction as the dependent variables, and the various climate variables as the independent variables.

The stepwise regressions showed three factors, growth opportunities, appropriate procedures, and managerial supportiveness, were important in determining employee commitment ($r=.42$, $p < .01$). And, six factors, growth opportunities, a democratic environment, appropriate procedures, task variety, open communication, and autonomy, were responsible for determining employee satisfaction ($r=.59$, $p < .01$). Our results thus support Modway, Steers, and Porter's (1979), and Welsch and LaVan's (1981), arguments that though highly correlated ($r=.47$, $p < .01$), job satisfaction and commitment are distinct psychological states that are not necessarily influenced by the same factors.

Second, it seems that new product development employees are likely to remain committed to a company, as long as it provides a supportive atmosphere that does not hamper them procedurally, and allows them to grow professionally. But, in order to be satisfied with their jobs, these employees also need to feel that they having interesting jobs in a friendly and democratic company, that allows them control over their jobs.

In order to retain new product employees, companies need to pay particular attention to factors such as growth opportunities, and managerial support for employees. And, to increase job satisfaction among these employees, companies also need to create a democratic and collegial environment within the work unit.

However, we need to point out that the nature of the role each of these factors plays in the new product development process remains unclear. Research with people employed in production indicates that while job commitment increase productivity, quality is more likely to be influenced by satisfaction. That is, satisfied employees are more quality conscious than dissatisfied employees (Welsch and LaVan 1981; DeCotiis and Summers 1987). These findings, raise some interesting questions for new product development managers, since new product development tends to be a long term activity, where productivity and quality are difficult to determine and define (Burger 1989). For example, Abbey and Dickson (1983) may have found that managerial support did not influence the innovation process, because it influences job commitment, but not satisfaction. On the other hand, they may have found that opportunities for growth (reward-performance dependency in their terminology) influence innovation, because such opportunities influence job satisfaction. Thus, companies that compete in high technology industries, may need to pay more attention to employee satisfaction in order to increase the innovativeness of new product development groups. Companies in price and cost oriented industries, on the other hand, may need to pay more attention to employee commitment (Ettlie, Bridges, and O'Keefe 1984).

Conclusions

As mentioned earlier, very few studies have explored how a company's internal environment influences the people employed in its new product development unit. Although this study did not directly examine the effects of the perceived climate on the new product development process itself, it did find some very interesting findings regarding the effects of these variables on job commitment and satisfaction, two variables that usually mediate the climate-behavior relationship. Our findings, combined with the findings of studies conducted with employees from functional areas other than new product development, suggest that climate variables have distinct effects on job satisfaction and commitment. In addition, our findings suggest that job satisfaction and commitment may influence different aspects of the new product development process. Consequently, companies in some types of industries (e.g., high technology) may need to pay more attention to employee satisfaction, while companies in other types of industries (e.g., cost oriented) may need to pay more attention to employee commitment. However, only future research can determine whether this is indeed true.

In addition, as we mentioned earlier, our study was conducted with the non-managerial employees of new product development units. It is possible that studies conducted with other employees may reach different conclusions, particularly because employee perceptions of a firm's internal climate are known to vary with people's status in the organizational hierarchy. The generalizability of our study is also limited because of the types of companies sampled. Our study was conducted with people employed in new product development in the Fortune 500 manufacturing and service companies--in other words the largest U.S. companies. The results may not be generalizable to smaller companies.

In conclusion, our study's results indicate that perceived climate has significant, but different, effects on job commitment and satisfaction of the non-managerial employees of new product development units. And, these variables in turn are likely to have distinct, and different, influences on the performance of these employees. However, more studies are needed, with different company and employee samples, to validate the results of this study, and address the issues that our study raises.

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THE QUICK RESPONSE IMPACT IN CANADIAN RETAILING: A COMPARISON ACROSS SEVERAL STORE FORMATS

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Abstract

This paper describes and compares developments in quick response (QR) retailing across several store formats (drug stores, grocery stores, and department stores) in Canada. By investing in QR computer technology and working toward more cooperative relationships with suppliers, retailers can increase operational efficiency and customer satisfaction. While all "large" retail operations can benefit from QR, different types of stores are at different stages of QR implementation. Sources of information to support this work include grocery retail trade journals, field interviews with drug and department store managers, phone calls to trade associations, and aggregate retail sales and stock data published by Statistics Canada.

The paper is organized as follows. The first section defines QR retailing, then briefly describes how the two primary QR benefits--better customer service and improved operational efficiency--are achieved. The second section makes comparisons of QR implementation across three types of stores. The three store formats included in this study are: grocery stores, drug stores, and department stores. In the third section, aggregate annual stock/sales time series data are presented for the three store formats. Also, variations in the stock/sales trends across store formats are analyzed. Finally, the fourth section consists of conclusions and suggestions for future research.

Quick Response Retailing

Quick response (QR) is technology-driven retailing which requires extensive retailer/supplier cooperation. The purpose of QR is to provide customer satisfaction at peak efficiency. The core QR technologies are: universal product code (UPC) identification of inventory items or stock keeping units (SKUs), point-of-sale (POS) data capture at the SKU level, and electronic data interchange (EDI) of information between retailer and supplier.

QR retailing improves customer satisfaction in at least two ways. First, POS scanning or wanding makes for more rapid customer check-out, saving the consumer precious time. Second, SKU-level inventory management and EDI communication between retailer and supplier combine to reduce stockouts. This assures that customers are more likely to find what they are looking for in the store. POS and EDI also serve to increase retail sales, by reducing both lost sales (due to stockouts) and markdowns (due to over-stocking).

QR paves the retail path toward peak efficiency in at least three ways. First, EDI reduces order processing costs. Provigo, a major Canadian grocery chain which places more than 500,000 orders per year, estimates savings of $2.00 per order with EDI (Macrae 1990). Second, POS data capture and EDI together reduce order cycle (or lead) time--and pipeline stock (Larson and Lusch 1990), since pipeline stock is a direct function of lead time. Third, increasing both forecast accuracy and lead time reliability, QR also reduces the safety stock levels required to maintain planned levels of customer service.

QR In Three Types Of Stores

A comparison of the adoption of QR retailing in drug stores and department store HBA areas is constructed with structured interviews with merchandising managers within each of the store formats. The data acquired during the interviews (see Exhibit 1) supplement aggregate pharmacy and department store HBA sales and stock data compiled by Statistics Canada. The appendix is a methodological note.

The stores selected for this comparison are two of the dominant drug store chains and four of the large department stores in Western Canada. All six stores are competitively located within the largest shopping mall in Western Canada (West Edmonton Mall). Surprisingly, two of the four department stores do not maintain HBA departments, and a third had only re-introduced a small HBA section during the last year--due to customer demand.

Prior to reporting results of the drug and department store structured interviews, QR use in Canadian grocery stores is briefly described. Compared to the drug stores, grocery stores tend to allocate a relatively small amount of display area to HBA items (Curhan, Salmon and Buzzell 1983).

EXHIBIT 1

STORE DESCRIPTION:	DRUG CHAIN STORES SD	LD	DEPARTMENT STORES WW	TE
Chain Relationship	Franchise Owner/Assoc.	Private Co.	Public Co.	Private Co.
Market	650 Stores National	40 Stores Western Prov.	23 Stores Western Prov.	148 Stores National
HBA DESCRIPTION:				
Store (Sq. Ft.)	6,000	24,000	150,000	165,000
HBA (Sq. Ft.)	1,500	10,000 - 12,000	1,500	200
Total SKUs	15,000	60,000	N/A	N/A
HBA SKUs	4,500	24,000	400+	200
Total HBA Inventory	$600,000	$1.5M	$1M+	$8,000
Turnover	6	10 (Alberta) 15 (B.C.)	1 - 2	2.5
MANAGEMENT DESCRIPTION:				
POS/Time	none	Scanner 7 Years	Manual Entry 4 Years	Wands 2 Years
Order Process	Phone Data Terminal	Phone Data Terminal	Phone	Phone
No. of Suppliers	100+, Including 3 Major Wholesales	5 - 6 and Co. Owned Warehouse	4, Including 1 Major Wholesale	4, No Major Wholesale
EDI	Data Term To Suppliers	Suppliers and Central Warehouse	None in HBAs	None in HBAs
CSM	Planograms	Planograms	none	none
Authority	80% Store S/T Franchise	100% Head Office	50% Store 50% region	80% Store 20% Region

Grocery Chain Stores

In 1977, there were only three grocery stores in Canada with POS scanners (Canadian Grocer 1977). By 1991, it is estimated that at least 95 percent of grocery chain stores were scanning (Welds 1990). EDI growth among Canadian grocery chains has also been explosive since the mid-1980s (Macrae 1990). Safeway, the dominant grocery chain in Western Canada, has been scanning at POS for seven years.

Drug Chain Stores

The drug chain interviews were conducted with district managers employed by the parent corporations and responsible for geographic regions. The organizational structure varies considerably between these two chains: one is a franchise operation, and the manager interviewed is employed by the publicly-held franchisor; the other is a very centralized private corporation, with 100 percent ownership of its retail outlets. Advance appointments were required to interview both managers (Oostenbrink 1991; Stewart 1991).

Drug store chain SD is located Canada-wide with over 650 franchisee outlets. The owner/associate pharmacists maintain significant control over merchandising decisions, but are subject to some franchise agreement restrictions (e.g. stocking of SD brand products). District manager/coordinators are employed by the franchisor to assist with merchandising and other operations.

SD retail outlets are of a standard size (approximately 6,000 sq. ft.) with 25 percent of the retail space allocated to the display of HBA items. Of the 15,000 SKUs carried, about 4,500 are in the HBA category. HBA items also account for 20-30 percent of total sales. The average store HBA inventory is $600,000 (@ cost), and average inventory turnover is six times per year.

At the time of the interview, the SD chain had yet to install POS scanner technology for SKU data capture. This conservative approach to POS investment was attributed to high capital requirements--and uncertain returns--for the franchisees. POS scanner implementation at SD requires both store level (franchisee) and corporate level (franchisor) support.

Inventory management was a semi-automated process at the SD chain. Manual merchandising counts were performed every one to eight weeks, depending on the item. Data are recorded on inventory control sheets or direct order entry (DOE) units, which are also used for transmitting orders to three large drug wholesalers. SD also orders by phone from over 100 small specialty distributors.

In contrast to SD, the LD drug chain is a privately-held corporation with 100 percent ownership of its more than 40 stores in Western Canada. All merchandising decision are centralized at the head office, due to the LD objective of having identical stores displaying identical products.

With an average of 24,000 sq. ft. per store, LD outlets are four times larger than SD outlets. This allows LD to pursue a "scrambled merchandising" strategy, carrying large inventories in housewares, cameras, small appliances and electronics, as well as HBA items. Consequently, while SD management considers LD to be a prime competitor, LD management perceives their main competitors to be the mass retailers and discounters.

LD stores allocate from 10,000 to 12,000 sq. ft. to the display of HBAs. HBA items represent about 30 percent of LD sales and account for 24,000 of 60,000 total SKUs carried. Average HBA inventory in LD stores is $1.5 million (@ cost). Inventory turnover varies by region, averaging ten times per year in Alberta and 15 times per year on the West coast.

The LD chain has been using POS scanning technology for over seven years. First tested in the smaller Edmonton market, POS installation quickly expanded to the Vancouver area, where LD headquarters is located, and throughout the chain. All POS sales and stock data is sent by computer to headquarters, where centralized merchandising and shelf allocation (planogram) decisions are made. Inventory is ordered and shipped from LD's Vancouver warehouse. In contrast to SD's more than 100 HBA suppliers, LD uses only 5 or 6 independent suppliers--and the company warehouse. EDI networks are set up between LD headquarters, the warehouse, and other suppliers.

Department Store Health & Beauty Aids (HBA) Departments

The department stores delegate merchandising decisions to area managers within the store. An area may be comprised of several non-related categories, such as toys, cosmetics, HBAs and candy. These interviews were conducted in the stores, without advance appointments (Boyd 1991; Knox 1991). During all of the interviews, a standard survey instrument was completed. As summarized in Exhibit 1, the survey questions pertain to three main areas: store description, HBA department description, and merchandising management/QR technology.

WW is a public corporation with 100 percent ownership of 23 department stores in Western Canada. Merchandising responsibility is delegated equally to the regional office and the individual stores. Of the 150,000 sq. ft. of sales floor space, approximately 1,500 is designated for display of HBA items. WW currently carries more than 400 SKUs in the HBA area. Although the WW HBA department is similar in size to that of drug chain SD, WW values its inventory at over $1 million (@ retail) and realizes inventory turnover of only one or two times per year.

WW has been using a manual entry POS system for four years. All HBA orders are currently placed by phone to WW's four independent and one major drug wholesaler. EDI systems are in place for some cosmetic lines, but none are yet in place for HBA items. This department store operation is not using planograms for shelf allocation of HBA items.

TE is a privately-held organization with 148 department stores located throughout Canada. Responsibility for the merchandising decisions is 20 percent with the region office and 80 percent with the in-store category manager. Although this is the largest store surveyed (averaging over 165,000 sq. ft. of retail space), TE stores have the smallest HBA department allocation (averaging only 200 sq. ft. to display about 200 SKUs). Also, HBA average inventory is only $8,000 (@ cost) and a maximum of 2.5 turns per year are achieved.

TE stores have been using POS wanding technology for two years, but do not use this data for inventory control. While toys, housewares and cosmetics are currently ordered on an EDI system, HBA items are not. The category manager places merchandise orders to four distributors by phone.

Data from two other department stores are not reported here, since they did not carry HBA items.

Stock/Sales Ratio Trends

Exhibit 2 gives annual Canadian interest rates and stock/sales ratios for the three store formats/departments under study (grocery stores, drug stores, department store HBA areas). Contrary to conventional wisdom (Rosenbloom 1991, p. 78), simple inspection of these times series data reveals that interest rates fail to explain the stock/sales trends. While interest rates have fluctuated wildly, stock/sales ratios exhibit clear trends downward (grocery and drug stores) or upward (department store HBAs).

EXHIBIT 2
INTEREST RATES AND STOCK/SALES RATIOS IN CANADA, 1975-1988

		Stock/Sales Ratios[b]		
Year	Prime[a] Rate	Grocery Stores	Drug Stores	Department Store HBAs
1975	9.42	0.69	2.83	3.28
1976	10.04	0.72	2.42	3.45
1977	8.50	0.74	2.43	3.53
1978	9.69	0.70	1.91	3.55
1979	12.90	0.70	2.06	3.55
1980	14.25	0.66	2.08	3.63
1981	19.29	0.61	2.02	3.67
1982	15.81	0.60	1.82	3.89
1983	11.17	0.56	1.59	4.09
1984	12.06	0.59	1.62	4.39
1985	10.58	0.55	1.67	4.65
1986	10.52	0.53	1.50	5.31
1987	9.52	0.41	1.15	5.30
1988	10.83	0.45	1.10	5.33

[a] annual average of monthly prime rates in Canadian Economic Observer, Statistics Canada.

[b] annual average of end-of-month dollar inventory divided by monthly dollar sales reported in Merchandising Inventories, Statistics Canada, 1973-1988. Chain store stock is valued at cost; department store stock is valued at retail price.

Exhibit 3 plots the drug and grocery store stock/sales ratios, from 1975 to 1988. Note the dramatic decline in drug store stock/sales ratios, compared to the grocery store ratios. Of course, the grocery store ratios start (in 1975) and remain significantly lower than the drug stores ratios. Exhibit 4 shows that department store HBA stock/sales ratios have been increasing, moving in the opposite direction from the drug store ratios.

EXHIBIT 3
CANADIAN DRUG AND GROCERY STOCK/SALES, 1975-1988

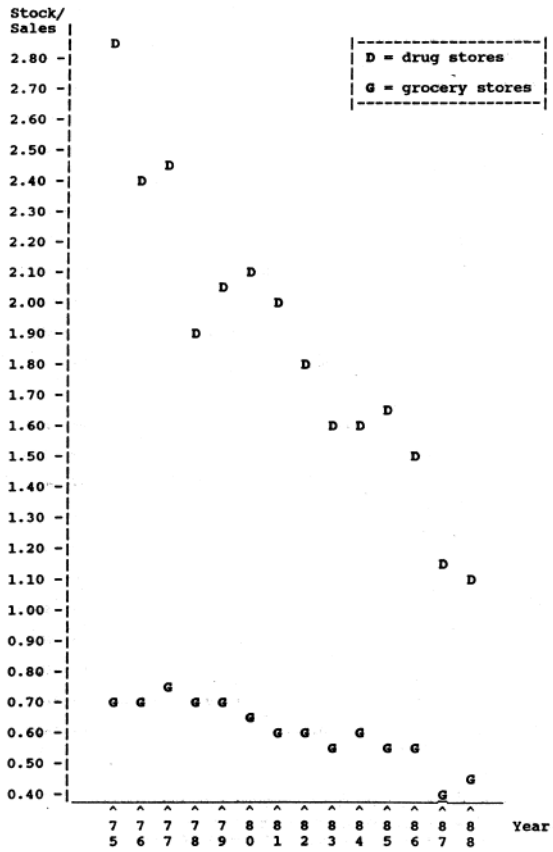
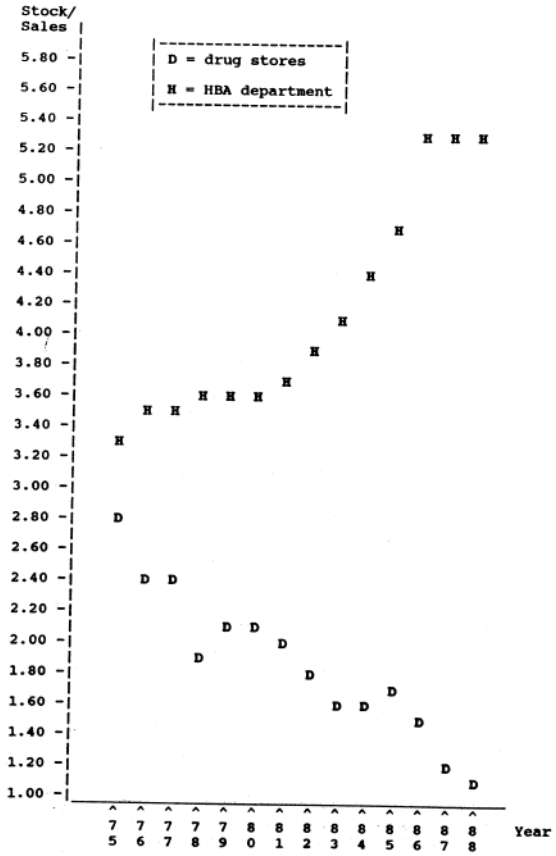


EXHIBIT 4
DRUG AND HBA DEPARTMENT STOCK/SALES, 1975-1988



Conclusions

The following conclusions emerge from this probe into QR retailing in Canada:

1. In the three store formats studied, the penetration of QR technology is deepest in grocery chain stores, and most shallow in department store HBA areas.

2. Stock/sales ratios in drug and grocery retailing have declined along with increasing use of QR. The drug store ratios have declined more dramatically, but started at a high level compared to the grocery store ratios.

3. The drug chain store structured interviews suggest that centralized decision making leads to quicker implementation of QR. LD, the centralized, more than 40 store, 100 percent company-owned chain, is deeply into QR retailing. On the other hand, SD, the 650+ store, less centralized, franchise chain, is a laggard with respect to QR.

4. The significant rise in department store HBA stock/sales ratios signals the overall woes of department stores. Sales have declined since the recession in 1982, while stock levels have risen.

Appendix

A reviewer suggests that the structured interview/case study research approach "fails to measure indicators of QR technology, use a representative sample of retailers, and test theory-driven hypotheses..."

Larson and Sijbrands (1991) discuss the challenge of finding empirical indicators for aggregate QR technology implementation. For Canadian chain stores, they find a statistically significant relationship between QR and stock/sales ratio (more QR is linked to lower stock/sales). The current study measures QR use, at the store level, in terms of: (1) type of POS system in place, and (2) whether or not EDI links with suppliers are in place (see Exhibit 1).

According to Churchill (1987), in the analysis of selected cases, the researcher's "proper attitude is one of alert receptivity, of seeking explanations rather than testing explanations" (p. 80). Churchill also notes: "cases that display *sharp contrasts* or have *striking features* are most useful" (p. 81). Bonoma (1985) asserts that "the goal of data collection in case research is not quantification or even enumeration, ... the goal is understanding" (p. 206).

In the current study, four cases (stores) with some sharp contrasts were selected for analysis. The purpose of the field interviews was to generate--rather than to test--hypotheses on the antecedents and consequences of quick response retail technology. While this approach furthers our understanding of QR retailing, future research plans include the statistical testing of specific hypotheses using a larger, more representative sample of retailers.

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JUST-IN-TIME (JIT) RETAILING

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Abstract

Just-in-time (JIT) retailing is an American innovation. Using JIT concepts in purchasing merchandise, certain large retailers in particular are able to maximize profits and productivity. This paper presents a glimpse of how JIT methods are used at Wal-Mart, and discusses implications for other retailers.

Introduction

The Just-in-Time (JIT) purchasing and inventory management concept was first developed in Japan to achieve manufacturing economies at Toyota Motors (Shingo 1982; Economist 1987). In order to reduce growing inventory costs in the U. S. that reach as high as 35 percent of the inevenory value (Berkowitz, et. al. 1992, p. 425), JIT systems are being used by American manufacturers as well (Frazier, et. al. 1988). General Motors, for example, was able to reduce inventory costs by $2 billion in one year by adopting JIT methods (Kotler 1991, p. 204). Similarly, wholesalers, suppliers, and giant retailers like Wal-Mart and J. C. Penney are using JIT to enhance their competitive position. This paper has three objectives: to discuss JIT retailing as a concept; to show how JIT systems are used at Wal-Mart, and to discuss implications for other retailers.

The JIT Concept

In manufacturing, JIT is essentially a management philosophy where the primary objective is to achieve zero or minimum levels of inventory (Frazier et. al. 1988). Manufacturers buy raw-materials delivered "just-in-time" to be utilized in production so that cash is not tied up in inventory. The benefits of JIT inventory management go beyond traditional inventory management methods that rely on the economic order quantity (EOQ) model which specifies the order size that minimizes total costs of ordering and carrying inventory (Pride and Ferrell 1991, p. 409). The advantages include elimination of waste, enhanced product quality, improved employee morale and increased customer satisfaction (Inman 1991). Waste is reduced because the production goal is zero defects which means less scrap and reworking. Product quality is enhanced for the same reason. Finally, employee morale is raised because of fewer complaints from customers, who are more satisfied with products of high and consistent quality.

The principles behind JIT philosophy are simple. Excess inventory covers a multitude of problems, enabling the manager to ignore them. The down side of this situation is that excessive inventory is very expensive. As inventory level is reduced, problems become apparent, and managers are forced to solve them instead of ignoring them. Dealing with problems enhances organizational efficiency causing lower costs and improved service to customers (Schonberger 1982, p. 51).

JIT Retailing

Though it shares common philosophy with JIT in manufacturing, JIT retailing can be defined as the ability of a retailer to have just enough inventory for display and sale with minimum cash being tied up with inventory in pipeline. Also, in retailing, another name for JIT is Quick Response Inventory System (QR), which is a cooperative effort between retailers and their suppliers aimed at reducing retail inventory while providing a merchandise supply that meets customer demand patterns (Evans and Berman 1992, p. 361).

Today, since efficient buying of merchandise and maintaining inventories at near zero levels are becoming critical to success in retailing, large retailers may have an advantage over smaller retailers. First, large retailers are in a unique position to negotiate more favorable terms from suppliers because of their large volume buying and long term contracts.

Second, transportation and warehousing costs can be reduced by synchronizing delivery schedules with the retailer's merchandise needs and demand forecasts. Resultant savings can be passed on to customers via lower prices, making the firm's offerings more competitive.

Third, store shelves can be stocked with fresh merchandise, since replacement orders are made at the point-of-purchase through electronic data exchange with suppliers, wholesalers, and manufacturers. This enables them to deliver goods at exactly the appropriate time.

Fourth, JIT systems enable retailers "zero customer feedback time." This means that as inventory moves through the system, retailers can find out which products are selling and which are not, and then delete the slow moving items.

Requirements

The implementation of JIT system requires that certain conditions be met. Here are some important requirements:

Frequent and reliable delivery. This is critical to avoid unnecessary inventory build-up.

Suppliers must meet retailer delivery schedules or face penalties such as being dropped as a supplier. Understandings and agreements must be negotiated with suppliers in advance, and to the satisfaction of both parties.

Communication link with suppliers. Retailers must establish electronic data interchange (EDI) with suppliers and their manufacturers and wholesalers so they can order merchandise directly from suppliers. Establishing these EDI links greatly simplifies and speeds up the reorder process and also helps increase sales, reduce mark-downs, and reduce inventory carrying costs by helping to speed the flow of information and merchandise (Evans and Berman, 1992, p. 361).

Efficient Coordination. It is important for suppliers to coordinate their delivery dates with retailer demand schedules so that retailers can set up their merchandise displays based on delivery dates instead of placing rush orders, which are disruptive to both supplier and retailers.

Close relations with major suppliers. According to the 80/20 rule, eighty percent of purchases originate from twenty percent of suppliers. Consequently, it is important to maintain close relationship with this group of suppliers.

Pitfalls

To achieve successful implementation, certain pitfalls must be avoided (See for example, Cunningham 1986; Karmarkar 1989):

Failure to obtain top management commitment. It is impossible to implement successful JIT systems in retailing without strong commitment and support from top management. Since it requires a total change in the way the firm operates, wholehearted support from management is crucial.

Inadequate employee education. Employees must thoroughly understand the concept, philosophy, and procedures of JIT. They must also be clear about their contributions and actions which could determine the success or failure of JIT systems.

Failure to educate vendors. Not all vendors will show interest in a JIT system. It may not be advantageous to them since it may increase cost for them to satisfy buyers who demand deliveries "just-in-time." Therefore, an education program may be necessary to persuade new vendors to accept and participate in the firm's JIT system. One inducement here could be guarantee of repeat orders and long term contracts.

Failure to view JIT as an on-going process. JIT retailing is not a cure-all for retailing problems. It is a concept that can improve competitive efficiency of a retailer. Nevertheless, any return on investment in JIT systems must be viewed long-term rather than short-term since optimum results may not be realized until the stystem has been in place for some time.

Failure to design proper software. Coordinating delivery schedules with the firm's merchandise requirements is essential, and computer software that links with vendor computers is necessary to minimize delays and to improve accuracy.

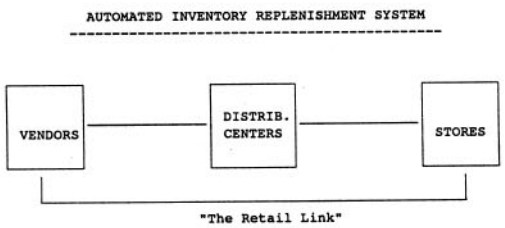
Thus, firms considering adoption of JIT systems should first see whether they can meet the minimum conditions as discussed above, and avoid above described pitfalls.

JIT Systems at Wal-Mart

Wal-Mart's retailing operations provides a good example to illustrate JIT retailing. Figure 1 shows the link between Wal-Mart's stores, distribution centers and vendors. It is no accident that Wal-Mart's 1700 stores never seem to run out of merchandise while the firm maintains inventories at near zero levels throughout its distribution network. It is an amazing feat in coordination -- matching merchandise needs with physical distribution plans -- considering the tremendous volume of business that Wal-Mart does.

Figure 1

JIT Systems at Wal-Mart



At Wal-Mart, JIT systems are referred to as "stockless systems." These systems are designed to minimize inventory levels as suppliers deliver merchandise according to mutually agreed upon delivery schedules. Employees that enthusiastically accept and make JIT work are rewarded through bonuses and recognitions, and suppliers that cooperate are awarded with lucrative orders and long term commitments.

"Retail Link"

Wal-Mart recently started the "Retail Link" program that goes beyond mere electronic data sharing with suppliers. Under this program, vendors continually receive a variety of information on sales trends and inventory levels. And, they also receive purchase orders so that they can resupply merchandise on time. For example, a men's slacks manufacturer receives purchase orders directly via satellite link, enabling the firm to offer slacks in 64 sizes and various color combinations and have them delivered promptly even in peak seasons (Business Week 1987).

At store level, two types of purchase orders are used: warehouse orders and assembly orders. Warehouse orders constitute eighty percent of total orders placed by each store. These orders contain information such as merchandise item number, description, vendor name, stock number, unit costs, unit retail price, size, color, and mark-up. Merchandise is usually ordered by a hand held electronic unit called Telzon which can unload information to the mainframe computer at the distribution center.

About twenty percent of merchandise is ordered via assembly orders that go directly to vendors. In preparing these orders, a floor associate incorporates lead time, which is the number of weeks it takes for ordered merchandise to arrive at the store. Two factors are used in this calculation: a two week safety stock and two to four week ordering interval. The objective is to minimize unnecessary inventory build-up.

Two problems can occur with either of the above orders: stock-out or over-stock. Stock-out happens when sales increase while order size remains the same. Since customers cannot get the merchandise they need, they usually patronize a competitor's store, and may be lost. Over-stock occurs when excess inventory is accumulated, increasing the firm's carrying costs. Both of these situations must be avoided if the fim expects to remain competitive.

The Automated Inventory Replenishment System

To a great extent, Wal-Mart's success depends on its complex but efficient Automated Inventory Replenishment System (AIRS). The purpose of this system is to reduce managerial decisions to a minimum and let the flow of merchandise throughout the distribution network to be as automatic and smooth as possible. This is accomplished through efficient computer linkages between the firm and its distribution centers and suppliers. Suppliers are continually kept informed regarding merchandise needs.

The Distribution Center. The distribution center is the kingpin of AIRS and JIT retailing. By acting as a nerve center, it facilitates and ensures smooth flow of inventory from suppliers to distribution centers and from there to various Wal-Mart stores. According to CEO, Sam Walton (1986), the firm's rapid growth and profitability are due to its own version of "hub-and-spoke distribution" (Marketing News 1986). This is a system that enables management to take advantage of substantial quantity discounts in buying merchandise. Also, Wal-Mart first gives priority to location of the distribution center rather than location of the stores. This shows the importance given to logistics and efficient distribution by the firm over retail store location.

Each distribution center is strategically located and very large in size. They handle huge volume of merchandise. For example, 205,000 cases of merchandise a day are unloaded at the rate of 13,400 cases per hour brought in by 190 trailers. On average, each center services about 150 stores within a 400 mile radius. Some 18 distribution centers service over 1700 retail outlets nationwide and total storage space has grown from 11.8 million to 14.6 million square feet in a five-year period. Each distribution center carries about 8,000 items in stock worth $65.8 million.

Annual inventory turnover rate is over 15.8 times resulting in $1.74 billion in annual sales. The 98.9 percent in-stock rate covers 99 percent of demand. Finally, if the system breaks down, idle time cost is estimated to be about $127 per minute. The costs include fixed costs, overhead costs, and opportunity costs of probable loss of customers to competition. Therefore, it is important to keep the distribution centers working at peak performance levels without interruptions.

Wal-Mart has other major competitive advantages in addition to its successful utilization of JIT systems. These include superior management skills, accurate sales forecasting, and utilization of appropriate technologies to operate its distribution network. Most importantly, Wal-Mart displays superior management skills in coordinating employees and vendors to work in harmony to achieve common goals.

Implications

The adoption of JIT systems may not benefit all retailers in the same manner. Some retailers may not have the inclination to take advantage of the systems. Wal-Mart's case provides a good example of how a retailer who incorporates JIT system, benefits from it by saving inventory management costs and passing these savings to customers via prices.

Does a firm have to be as large as Wal-Mart to benefit from these systems? There are no clear-cut answers to these questions. Each retailer must decide whether switching to full or semi JIT systems is worthwhile. Most small and medium size retailers, however, seem to prefer to do business in traditional ways since flexibility is critical in fashion merchandising and specialty retailing and this flexibility may not be possible under JIT system since orders are received and handled in a systematic manner that is less amenable to frequent changes.

Discount merchandisers like Wal-Mart are driving many a retailer out of business since the latter are unable to compete on price basis. In fact, their inventory costs are usually high due to their inability to obtain quantity discounts and transportation economies.

In the final analysis, small retailers have two options: They can join together and form cooperatives to strengthen their bargaining power and to obtain favorable terms from suppliers. It is ideal for these cooperatives to possess and operate distribution centers as efficient as Wal-Mart.

In the absence of adopting JIT systems, small retailers must consider adopting "positioning"

and "niche marketing" strategies. Through these strategies, the retailer can fill gaps in the marketplace that Wal-Mart and other large retailers are unable to satisfy.

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CUSTOMER ADAPTATIONS AND RETAILING: A REPLICATION STUDY

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ABSTRACT

The present study attempted to replicate Jensen and Rao's (1988) study dealing with the purchase, preparation, and consumption of food items. Using data collected 10 years after their data, the present study partially confirmed their study in finding stable activity-related attitudes, behaviors, attitude-behavior relationships, and market segments. Also, the study demonstrated construct validity of the measurement instrument used by Jensen and Rao (1988). The findings have implications for both food marketers and retail/consumer behavior researchers.

INTRODUCTION

The marketplace has become extremely dynamic in the preceding decade. The market is becoming more fragmented and market segments more transitory. Smaller and smaller consumer segments are placing increasingly diverse demands on marketers to cater to their special needs and wants (Day 1990). Changes in consumers' tastes, likes and dislikes, priorities, and increased time and economic pressures on one hand, and the pace of technological developments that increase the ability of marketers to serve many segments on the other, have contributed to this dynamic nature of the market. However, a debatable point is whether such consumer-related changes have occurred in the product/market domain of necessity goods such as food items. Also, the question arises as to whether changes in relationship between attitudes and behaviors for such nondurable goods have occurred during the decade. Finally, it would be of interest to explore whether changes or shifts in the segment-profiles identified by Jensen and Rao (1988) have occurred.

Using data collected in 1980, Jensen and Rao (1988) addressed the relationship between consumers' purchase-related attitudes and behaviors in the purchase, consumption, and preparation of food. This was a major departure from similar research studies and discussions that focused on durable goods (Brown, Demirdjian, and Mckay 1977; Lundstrom, Seiglimpaglia and Zikund 1978; Nevans 1975; Rao and Kiser 1977; Shama 1978, 1981, 1980; Shipchandler 1976). Jensen and Rao (1988), more importantly, identified the attitude-related market segments and their corresponding differences in behavior. Since that study very little research work has been done in the area. In view of the market dynamism that has prevailed in the past decade, the present study examines the stability of Jensen and Rao's (1988) findings.

BACKGROUND

The most prominent changes related to the purchase, preparation, and consumption of food have been in shifting demographic and consumption patterns. Many researchers have articulated the aging of the U.S. population (Drum-Beninati 1989, Panyco 1990, Moehrle 1990). The median age is expected to rise to 36.3 by the year 2000 from 30.3 in 1980 (Lazer et al. 1990). Compared to 1980, increasing cultural diversity is evident in the growth of Hispanics, Asians, Pacific Islanders, and other subcultures as well as a general growth in the U.S. population. Trends in the labor market are also apparent. Female labor force participation has increased since 1980. Between 1980 and 1988 female labor force participation, as a percent of the female population, has increased 4.8% from 51.1% to 55.9%. In 1980 eighty-eight percent of the working females had children below the age of 18. In 1988 the corresponding number was almost 90%. The labor participation rates for married women with children living at home went up from 54.3% in 1980 to 65.2% in 1988 (adapted from tables 634-637, Statistical Abstract of U.S., 1990). Similar shifts in wages and wage-earners have occurred. The median weekly earnings between 1983 and 1988 have risen in all sectors (Table 671, Statistical Abstract of U.S., 1990). For example, one-earner households have fallen by 16%, while two or more wage earner households have increased primarily due to women's labor force participation (Table 672, Statistical Abstract of U.S., 1990).

Growth in food-related expenditure, however, has lagged behind other expenditures. Personal consumption expenditures rose 30% between 1980 and 1988. During the same period, food-related expenditures grew by only 16%. The growth in purchased meals and beverages away from the home registered a slightly higher growth, increasing 19% between 1980 and 1988 (adapted from table 698, Statistical Abstract of U.S., 1990). Other interesting trends seem to be emerging in the consumption of food. There has been a relatively greater increase in the per capita consumption of fruits and vegetables and a reduction in the consumption of red meat. Among beverages, alcoholic distilled spirits have recorded a decline as has milk. Consumption of prepared foods has increased. The per capita consumption of nutrients has grown since 1980, while consumption of fat has either declined or stayed unchanged (adapted from Tables 202 to 206, Statistical Abstract of U.S., 1990, for period 1980-1987).

Other important changes in the social fabric have occurred that may impact consumption-related attitudes. There has been an increase in cross-cultural communication channels, education levels, and environmental consciousness among the general populace (Riche 1987). There has been a rise in single parent households, single person households, and a fall in number of married couples (McDonald 1991). In addition, budgetary pressures have increased as the baby-boomers send their children to college (Ambry 1990). Finally, consumers are reporting increased concerns for their time (Fram and DuBrin 1988).

Taken as a whole, the dynamic changes during the past decade may have resulted in significant changes in the attitudes, behaviors, and attitude-behavior relationships identified by Jensen and Rao (1988) for food purchase,

preparation, and consumption. Furthermore, significant shifts in the market segments (i.e., routine, connoisseurs, nutritionists, traditional, and liberal) identified by these authors may have occurred. Some segments may have grown in size, others may have shrunk, and new segments may have emerged.

The present study is an initial exploratory examination of the above questions using the same measurement, sampling, and analysis procedures as Jensen and Rao (1988) but ten years later. Jensen and Rao used 1980 data to examined attitudes, behaviors, and market segments for the purchase, preparation, and consumption of food. The present study uses identical procedures but for data collected in 1990. Finally, 1980, the year Jensen and Rao (1988) collected their data was a time of high inflation. The present data, collected in 1990, was a time of relatively low inflation. The differences in the economic conditions since 1980 also justify reexamining attitudes, behaviors, the attitude-behavior relationship, and segments found by Jensen and Rao (1988).

RESEARCH DESIGN AND METHODOLOGY

Sample: Structured mail questionnaires were sent to 500 members of the Arkansas Household Research Panel (AHRP) during January, 1990. Jensen & Rao (1988) mailed their questionnaire to 750 AHRP members in 1980. Instructions requested that the household member who did most of the food purchase and preparation complete the questionnaire. Questionnaires were returned by 443 (88.6%) of the households (87.3% in 1980). Due to item omissions and other factors only 361 (505 in 1980) questionnaires were used in the analyses resulting in a usable rate of 81.5% (Jensen & Rao 1988: 76.9%).

Questionnaire: The questionnaire consisted of 30 behavioral items and 30 attitudinal items measured using 6-point Likert scales ranging from strongly disagree (1) to strongly agree (6). The 30 behavioral items dealt with the purchase (19 items), preparation (5 items), and consumption (6 items) of food. Cronbach's alpha was .89 for the purchase, .84 for the preparation, and .77 for the consumption items. The alphas found by Jensen and Rao (1988) were: .86 for purchase, .82 for preparation, and .75 for consumption. The attitudinal items addressed the respondents' reactions toward the activities involved in the purchase, preparation, and consumption of food (overall alpha = .70).

RESULTS

Attitudinal Composites: The 30 attitudinal items were subjected to a factor analysis with an orthogonal rotation. Mirroring Jensen and Rao (1988), eight underlying factors were revealed based on the Latent Root Criterion. The eight factors accounted for 58.5% of the variance (Jensen and Rao 1988: 61.5%). The factors, shown in **Table 1**, were labeled Food Shopping, Like Cooking, Gourmet Food, Responsibility, Budget, Time Consciousness, Health, and Quality Consciousness.

Insert Table 1 about here.

In comparing the present factor structure with that found by Jensen and Rao (1988), some striking similarities are apparent[1]. The factors Food Shopping and Health replicate almost perfectly. Two other factors, Budget and Quality Consciousness, closely replicated the earlier investigation with only minor exceptions. Being "very fussy about the food I buy," which loaded on Quality Consciousness in the earlier study, loaded negatively on Time Consciousness. "In buying food for the family, price is no object" previously loaded on Quality Consciousness and Budget now loads only on Quality Consciousness. The other items loading on these two factors replicate those found in 1980 (Jensen & Rao 1988). Finally, although showing some common items, the two factors Gourmet Food and Responsibility deviated from those found by Jensen & Rao (1988). In comparing Gourmet Food, two of the five items from the original study shifted away from it while the three that remained showed similar loadings. For Responsibility, three of the six items moved to other factors. The three remaining items revealed loadings similar in magnitude to those in the previous study.

A major divergence between the two factor structures under comparison is the nonreplication of two factors Planning and, at least semantically, Cooking. Two items in the earlier Planning factor loaded on Gourmet Food ("I like to read magazine articles that offer new food ideas and recipes") and Responsibility ("In planning menus, the food preferences of other family members should be more important than the wife's").

A more complex transformation seemingly took place for Cooking. On closer examination it seems that it could well have been named time consciousness by Jensen and Rao (1988), suggesting some communality between their Cooking factor and the present Time Consciousness factor. Three of the four items previously suggested by Jensen and Rao (1988) to be tapping Cooking loaded on Time Consciousness. Finally, the factor Like Cooking in the present study was made up of items from the Gourmet Food and Responsibility factors from Jensen and Rao's study.

Thus, the present factor structure, while revealing some similarities with that found by Jensen and Rao (1988), also indicates some changes in the underlying attitudinal structure. Although it is tempting to suggest that the underlying structure and, hence, attitudes may have changed in the decade between the collection of the two data sets, it is equally likely that the differences may be due to measurement aspects (e.g., reliability). Regardless of whether the differences are due to measurement or changing attitude structures, the differences hint at changes in market segments based upon changes activity-related attitudes.

Activity-related Attitudinal Segments: Each subjects' standardized factor scores were computed for each of the eight attitudinal factors using all 30 attitudinal items. Ward's hierarchical minimum variance clustering routine was then used to identify segments based upon the eight attitudinal factor scores. Similar to Jensen and Rao (1988), the initial analysis suggested nine clusters (ccc=-243.05, R^2 = 0.302940). Some clusters had relatively low sample sizes and only two

Liberal, Fastidious, Routine, Constrained, and Time-pressured.[2]

Insert Table 2 about here.

As expected, changes occurred in the market segment profiles. The two largest segments found by Jensen and Rao (1988), Connoisseurs and Nutritionists, merged into the present Fastidious segment and with fewer members. The two segments accounted for 53% of the members in Jensen and Rao's survey, while representing only 11% in the present study. Two new segments seem to have evolved during the decade. The Time-pressured segment in the present study accounted for 27% of the surveyed population. This segment is exemplified by attitudes suggesting extreme time consciousness, no budgetary constraints, low quality consciousness, and not minding food shopping. It appears that members of this segment placed little emphasis on the purchase, preparation, and consumption of food other than as related to the demands for their time.

The other segment that has seemingly evolved in the last decade is the Constrained, accounting for 12% of the population. The constituent members of this segment felt responsible for food-related activities but, financially constrained. In addition, they were quality conscious, possibly because of their perceived responsibility.

Only two of the segments identified by Jensen and Rao (1988) in 1980 appear to be stable in 1990, namely the Liberal and Routine, although some characteristics have undergone some relatively minor changes. Furthermore, while the Liberal segment has maintained its size relative to the other segments, the Routine segment has almost tripled.

Attitude-Behavior Relationships: Ignoring segments, regression analyses revealed that the attitudinal factors were good predictors of the summated items for purchase [F (8, 351) = 22.14, R^2 = .34], preparation [F (8, 351) = 22.31, R^2 = .34], and consumption [F (8, 351) = 11.78, R^2 = .21] as well as when collapsing across all the behavioral items [F (8, 351) = 23.73, R^2 = .35]. Partial correlation co-efficients revealed that budgetary attitudes accounted for the vast majority of the variance for purchase (.28), preparation (.22), consumption (.14), and overall (.28). The total variance accounted in the behaviors by the individual and set of activity-related attitudinal factors were remarkably consistent with those found by Jensen and Rao (1988).

Intersegment comparisons were carried out using MANOVA, ANOVA, and the Newman-Keuls procedures for unbalanced sample sizes. Using the average response for the purchase, preparation, and consumption items as well as for the aggregate average across all 30 behavioral items, differences between segments were for the purchase, F (4, 355) = 3.32, $p < .05$, consumption, F (4, 355) = 3.34, $p < .05$, and the aggregate behaviors, F (4, 355) = 3.40, $p < .05$. For purchase, the fastidious segment indicated more purchase adaptive behaviors (mean = 4.00) than did the routine (mean = 3.63). For consumption, the liberals indicated more consumption adaptations (mean = 3.85) than did the constrained (mean = 3.49). Finally, the fastidious indicated more overall behavioral adaptations (mean = 4.05) than did the routine (mean = 3.63). No other significant differences were found between the purchase, preparation, consumption, or overall behaviors for any of the segments.

Although the mean responses for the purchase, preparation, and consumption behaviors revealed only minimal differences, it is still possible that individual items may show differences between the segments. That is, although there appears to be very little differences in the overall behaviors of the segments, specific purchase, preparation, and consumption behaviors may exist that differentiate the segments. Hence, separate MANOVAs were conducted for the 19 purchase items, 5 preparation items, and 6 consumption items. Significant multivariate differences were found between the segments for the purchase (Wilks' Lambda F = 1.92, $p < .01$), preparation (Wilks' Lambda F = 1.95, $p < .01$), and consumption (Wilks' Lambda F = 1.94, $p < .01$) items. Subsequently, ANOVAs were conducted for each of the behavioral items followed by Newman-Keuls tests for pairwise comparisons between the segments. Significant differences were found between the segments for 8 purchase behaviors, 2 preparation behaviors, and 1 consumption behavior.[3]

DISCUSSION

In considering the passage of time and the measurement/analysis constraints (i.e., exploratory factor analysis), the present study's findings revealed some similarities as well as differences with those of Jensen and Rao (1988). The similarities and differences will be discussed as they relate to measurement, market segments, and the attitude-behavior relationship.

From a measurement standpoint, the reliability of the behavioral items was high and consistent with that found by Jensen and Rao (1988). This justifies the use of these items in future studies and provides a springboard for research dealing with the relationships between attitudes, behaviors, and the environment within the context of nondurable goods such as food items. The activity-related attitudinal structure, on the other hand, revealed both similarities and differences with that found in the earlier study. Similar to Jensen and Rao (1988), eight attitudinal factors were identified in the present study. Further-more, four of the eight factors loadings were remarkably similar to those in the earlier study while two factors revealed some moderate departures and two factors were clearly different. It is tempting to suggest that the ten years that have elapsed between Jensen and Rao's data collection and the present study has resulted in actual changes in consumers' attitude structure; especially the importance of temporal aspects. However, the exploratory factor analyses used in both studies dictates that measurement issues cannot be ruled out. Although not decisively resolving the issue, confirmatory factor analysis would be beneficial in determining whether measurement problems or actual attitudinal structure change has occurred.

Given the change in the attitudinal factor structures between Jensen and Rao (1988) and the present study, it was not surprising to find that the segments differed. However, two of the segments, the Routine and Liberal were found in both studies. The other three segments in the present study, Time-pressured, Constrained and Fastidious, were based on their relative degree of constraints for time, felt responsibilities, or being very particular about the food they buy.

Although not directly tested, the attitudinal and corresponding segment shifts suggest some consistency with the demographic changes discussed in the introduction. The changes in family constitutions, wage earning patterns, nutritional awareness, ethnic profiles, etc. seem to have redefined the market contours in the context of food products. However, based upon the present results, it is unclear whether the market has fragmented or blurred from the earlier study. Given that the initial number of market segments found in present study corresponds with that found by Jensen and Rao (1988) this seems unlikely.

Finally, and importantly, the present study found strong support for the relationship between activity-related attitudes and behaviors, replicating the magnitude of the relationships found by Jensen and Rao (1988). Also, both the earlier and present study found that budgetary attitudes tended to be the best predictors of purchase, preparation, and consumption behaviors. The shifts found in the present study have clear strategic implications for retailers. These implications are two-fold. The first is the competitive implication requiring marketers to re-evaluate their marketing mix strategies. The emergence of the Constrained segment underscores the price sensitivity of present day consumers for food items. This calls for strategic pricing so that competitors do not lure away consumers. Finding ways of lowering costs to the consumer is constantly required of the retailer to stay competitive. Also, with less and less time at their disposal, consumers cannot afford to engage in long searches nor face poor service (e.g., check-out lines). This increasing emphasis on convenience is exemplified by the appearance of the Time-pressured segment. They will be more prone to shop, select, purchase, and consume products from retailers who have concerns for the customers' time as well as the customers' money. The Fastidious segment, on the other hand, looks for quality food items. Retailers may elect to concentrate on providing increased product and service (e.g., selection) utilities. Given the attitude-behavior relationship, the benefits sought by each segment may be incongruent such that the retailers will need to narrow and focus their strategy on a select segment(s). Regardless, at the very least, food retailers need to develop segment-tailored strategies. The second implication is the need for food marketers to keep a sharp and continuous focus on the market. The decade that has elapsed between the present study and the Jensen and Rao (1988) study has hinted at some fairly drastic changes. In this fast paced age of high technology and instant gratification customer wants are ephemeral for nondurable food items as well as for durable products. Marketers who recognize change and rapidly adapt will emerge as winners, avoiding consumer defections and sustaining market leadership.

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ENDNOTES

1. Factor labels from the present study are double underlined and those from Jensen and Rao (1980) are single underlined.

2. Segment labels from the present study are double underlined and those from Jensen and Rao (1980) are single underlined.

3. Table of pairwise comparisons are available, upon request, from the authors.

TABLE 1

Attitudinal Factors and Factor Loadings Associated with the Purchase, Preparation, and Consumption of Food Products (Rotated Factor Pattern - Varimax)

ATTITUDINAL FACTORS [1]								
FS	LK	GF	RESP	BUDG	TC	HLTH	QC	ITEM[2]
.77								22. I dislike food shopping very much. **(FS .83)**
.76								25. The quicker I get my food shopping the better. **(FS .75)**
.75								21. Food Shopping takes up too much of my time. **(FS .70)**
.56								10. I have better ways to spend my time than in grocery shopping and cooking. **(FS .59)**
-.74								26. Food shopping is enjoyable. **(FS -.78)**
	.63							9. I am an excellent cook. **(COOKING -.4)**
	.62							6. I feel good when I spend a lot of time making dinner for my family. **(RESP .41)**
	.63							19. I love to cook. **(GF .42)**
	.60							5. I worry about my family's nutrition. **(RESP .44)**
	.49							3. Cooking is very creative. **(GF .45)**
	.41							2. When I give a dinner party I feel my guests will judge me by the food I serve. **(RESP .57)**
		.77						8. Dishes cooked in wines and sauces appeal to me. **(GF .77)**
		.66						18. I like spices and herbs in or on my food. **(GF .73)**
	.52	.57						7. I like to serve unusual dinners. **(GF .68)**
		.57						17. I like to read magazine articles that offer new food ideas and recipes. **(PLANNING .55)**
			.77					11. It is the wife's responsibility to keep her family healthy by serving nutritious meals. **(RESP .55)**
	.42		.66					12. Winning my family's praise for my cooking is important to me. **(RESP .62)**
			.60					4. I am disappointed in myself when dinner is a flop. **(RESP .72)**
			.58					15. In planning menus, the food preferences of other family members should be more important than the wife's. **(PLANNING .63)**
				.76				28. In shopping I try to save money whenever I can. **(BUDG .79)**
				.70				29. I feel I am very competent at selecting food to buy. **(BUDG .65)**
				.67				30. I carefully budget my food expenditure. **(BUDG .63)**
					.74			1. At home, we usually eat quickly prepared meals rather than more carefully prepared dishes of various flavors. **(COOKING .67)**
					.65			16. I prefer meals that can be prepared quickly. **(COOKING .70)**
					.57			13. The main reason we eat out is it saves cooking and cleaning time. **(COOKING .66)**
					-.42			24. I am very fussy about the food I buy. **(QUALITY .55)**
						.78		20. It is more important to choose food with the proper amount of calories, minerals, and vitamins than foods that can be enjoyed for their various tastes. **(HEALTH .75)**
						.73		14. The main value of food should be in its nourishment rather than its taste or flavor. **(HEALTH .80)**
							.76	23. In buying food for my family, price is of no object. **(QUALITY .55, BUDGET -.54)**
							.70	27. I buy only the best of food for my family. **(QUALITY .71)**

1 Factor Loadings greater than .4 have been shown. Factor Descriptions:: **FS** --- Food Shopping. **LK** ---Like Cooking. **GF** --- Gourmet Food. **RESP** --- Responsibility. **BUDG** --- Budget. **TC** --- Time. **HLTH** --- Health Consciousness. **QC** --- Quality Consciousness

2 Figures in parenthesis are the factors and respective item loadings in Jensen and Rao (1988).

TABLE 2

Standardized Means on Activity-Related Attitudinal Factors Used in Determining Segments.

	ATTITUDINAL FACTORS[1]									
Segments	FS	LK	GF	RESP	BUDG	TC	HLTH	QC	N	PERCENT
LIBERAL	$.92_a$	$.46_a$	$.34_b$	$-.98_b$	$.45_a$	$-.02_b$	$-.12_{bc}$	$-.23_c$	58	16
FASTIDIOUS	$-.40_c$	$-.01_b$	$.85_a$	$.10_a$	$.26_a$	$-.11_b$	1.26_a	$.85_a$	39	11
ROUTINE	$-.22_c$	$.42_a$	$-.35_c$	$.03_a$	$-.36_b$	$-.48_c$	$-.28_{cd}$	$.36_b$	121	34
CONSTRAINED	$.38_b$	-1.35_c	$-.45_c$	$.33_a$	$.63_a$	$.16_b$	$-.51_d$	$.40_b$	44	12
TIME-PRESSURED	$-.28_c$	$-.19_b$	$.09_b$	$.35_a$	$-.20_b$	$.56_a$	$.14_b$	$-.82_d$	99	27
									361	100

1. Factor Loadings greater than .4 have been shown. Factor Descriptions:: **FS** --- Food Shopping. **LK** ---Like Cooking. **GF** --- Gourmet Food. **RESP** - Responsibility. **BUDG** --- Budget. **TC** --- Time. **HLTH** --- Health Consciousness. **QC** --- Quality Consciousness.

Means with disparate subscripts indicate significant differences between segments at p=.05 using Newman-Keuls tests. Positive scores for food shopping indicate a dislike for food shopping. For the other factors, positive scores indicate a liking or concern for the dimension.

SUSTAINABLE COMPETITIVE ADVANTAGE IN SERVICE INDUSTRIES: A CONCEPTUAL MODEL AND RESEARCH PROPOSITIONS

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Abstract

This paper presents a review of the literature to demonstrate that research in services marketing is characterized more by an operations management orientation than a strategic orientation. Diverse literature on sustainable competitive advantage (SCA) is synthesized and a conceptual model of drivers of SCA is proposed in this paper. Lessons from the manufacturing sector form the basis for a number of sources of SCA for services industries outlined in the paper. The distinctive characteristics of services are posited to moderate the effectiveness of the sources of competitive advantage.

Introduction

An extensive body of literature in services marketing has focused on the differences between services and goods. For the most part, this stream of research has focused on the implications of differences between goods and services from the standpoint of *marketing operations management*. However, there seems to be a dearth of research on the strategic aspects of marketing such as the sources of competitive advantage in service industries. In mapping the sources of sustainable competitive advantage (SCA) in services, this paper addresses a number of issues. First, the services literature is reviewed to demonstrate the dearth of attention to strategic issues. Next, the conditions for achieving SCA are enunciated. Finally, a conceptual model of SCA in service industries is developed.

Services Marketing: An Overview Of Relevant Literature

Research in the services sector has developed through a number of phases, which while not being totally distinct, can be viewed independently. The primary focus of the early services marketing literature was on how services differed from traditional goods, and how these differences in turn demanded that services marketing be treated differently from goods marketing. In phase two, the focus of the literature moved towards addressing specific questions relating to the marketing of services. This functional orientation is illustrated by discussion of topics such as the *advertising* of services (George and Berry 1981) and *customer behavior* in service industries (Zeithaml 1981). In the next phase, a natural progression occured (i.e. a move from a functional perspective to a more managerial perspective.) Analysis of specific marketing questions was now placed in the broader context of the total operations of the service enterprise. Issues such as service quality, design and development of the services, management of distribution and positioning of services assumed center stage. In the fourth phase, a new research agenda emerged, namely, strategic market planning in services industries. While only a trickle of work has emerged in this area (Aaker 1989; Allen 1988; Bowen D.E. 1990; Bowen J. 1990; Coyne 1989; DeSousa 1989), the new competition in services industries demands that a much greater level of attention be given to this issue.

Upfront, a brief discussion on why we view literature pertaining to the characteristics of services and their implications for marketing as being primarily operations oriented is in order. A characteristic of services is that unlike goods, they cannot be stored. Since this *perishability* characteristic of services poses a problem to the service provider under conditions of fluctuating demand, supply side and demand side solutions are recommended. Hiring part-time employees to serve peak demand, and introducing peak-time efficiency routines (for example, directing bank tellers to perform only essential tasks during peak periods) are among the supply side demand management prescriptions offered to service firms which encounter peak demand during certain times of the day and certain days (Sasser 1976). While indeed the above solutions are ways of managing fluctuating demand, *every* service firm facing this problem can adopt these prescriptions. In other words, these prescriptions do not constitute a basis for a single service firm to achieve a SCA.

A Conceptual Model of Sustainable Competitive Advantage

There is no single, universally accepted definition of competitive advantage. Sometimes the term is used interchangeably with 'distinctive competencies' or 'key success factors'(Sousa De Vasconcellos E SA and Hambrick 1989). In most industries, some firms are more profitable than others, regardless of whether the average profitability of the industry is high or low. The high performing firms conceivably possess something special and hard to imitate that allows them to outperform their rivals. These special assets are referred to as *competitive advantages* in the literature. A firm is said to have a *competitive advantage* when it is implementing a value creating strategy not simultaneously being implemented by any current or potential competitors. *Sustainability* is achieved when advantage "resists erosion by competitor behavior" (Porter 1985; p.20). In other words, not only must the conditions assigned for competitive advantage be met; additionally it must resist duplication by other firms to gain the benefits of this strategy (Barney 1991).

To date, authors have tended to concentrate on specific elements of SCA and few attempts have been made to develop an integrative model. For instance, Coyne (1985;1989) provides an excellent review of what SCA is, but little guidance on how firms can attain it. Essentially comparable concepts such as isolating mechanisms (Rumelt 1987) and casual ambiguity (Reed and Defillipi 1990) have not been integrated, though both deal with the sustainability of competitive advantage. Day and Wensley (1988) do attempt to model the dimensions of SCA, but do not incorporate the issues of sustainability. Thus, this model which builds on the work of Day and Wensley and others, represents a relatively more comprehensive model of SCA. As conceived in the model, attainment of a SCA is the result of a long-run feedback or cyclical process. Day and Wensley (1988) correctly warn against the simple, sequential determinism of such a model recognizing that it is fraught with uncertainty and distorted by feedbacks, lags and structural rigidities. A detailed discussion of the constructs central to the model and the proposed linkages follows.

Sources of sustainable competitive advantage

Extant literature distinguishes between two major sources of competitive advantage: (a) resource based, and (b) skills based (Day and Wensley 1988). These two broad sources lead to positions of advantage, in the form of either (a) superior customer value through a differentiated product, or (b) the lowest relative cost through cost leadership. Selecting sources of competitive advantage involves identifying the skills and resources a company has which exerts the most leverage on positional advantages (Day and Wensley 1988). These skills and resources are commonly referred to as the "drivers" of cost and/or differentiation advantages (Porter 1985).

A wide variety of drivers have received attention in the literature including *resource based drivers* such as proprietary technology, asset ownership, economies of scale, reputation, and *skills based drivers* such as customer service, organizational culture, and pioneering advantage. Here, possession of technological expertise or any other driver does not automatically confer a competitive advantage. It provides the firm an *opportunity* to achieve a sustainable cost or differentiation advantage. Furthermore, as Aaker (1989) correctly notes, multiple bases of competitive advantage may be needed in order to compete successfully.

Barriers to imitation

Competitive advantages are sustainable only under certain conditions. Foremost among these is the existence of barriers to imitation. Central to the concept of SCA is the notion of durability or "non-imitability" of strategies. Strategic moves which can be easily copied do not yield a sustainable advantage for incumbent firms. Overlapping typologies of barriers to imitation have been proposed by Coyne (1985), Reed and Defillipi (1990), Rumelt (1987) and Dierickx and Cool (1989). A map of the broad playing-field of barriers to imitation is provided by Coyne's (1985) typology of capability gaps. These gaps are the possession of unique capabilities on the basis of past activities, current managerial decisions or external circumstances. However, it is the endogenous barriers to imitation that have received the greater attention through Rumelt's (1987) typology of isolating mechanisms, and Reed and Deffillipi's (1990) analysis of casual ambiguities.

Isolating mechanisms are essentially asymmetries in the skills and assets of competing firms that increase the costs associated with strategic imitation. Engaging in the maintenance of these isolating mechanisms protects the capability gaps derived from past and/or present managerial actions. Fisher (1989) provides some insights into how these mechanisms can be effectively utilized by service firms. He notes that understanding the relative durability of each isolating mechanism and marketing mix element has important implications for differentiation strategies pursued by service firms. An added dimension to the difficulty of strategic imitation occurs when ambiguity exists as to the factors responsible for superior performance. Tacitness, complexity, and specificity in a firm's skills and resources can generate causal ambiguity in competency-based advantages. Such ambiguity in its extreme form may be so great that not even managers within the firm understand the relationship between actions and outcomes (Reed and Defillipi 1990). However, in itself, casual ambiguity does not guarantee that a firm will be able to maintain a competitive advantage, but it does create a very effective initial barrier to imitation.

Contingency factors

The relative importance of the sources are likely to differ across service industries. Three classification schemas in the services literature that provide a basis for developing contingency propositions regarding the relative importance of alternative sources of competitive advantage are discussed in this section.

1. Shostack (1977) proposed a classification scheme for services based on the degree of tangibility in a product. In her conceptualization, goods have a greater degree of tangibility, and hence, on a continuum from *tangibility dominant* to *intangibility dominant*, goods tend to be to the left of the continuum and services to the right. Salt is an illustration of a pure good, whereas education is an example of a pure service. However, there are very few pure goods or services. Most products are some combination of the two, with the *degree of tangibility* being the decisive factor.
2. A second approach to classification of services is based on the role employees play in a service organization. Here, services are classified as either people based or equipment based, depending upon the importance of either people or equipment to the organization (see: Thomas 1978; Kotler 1980). The implications of the above categorization from the standpoint of fixed and variable costs are pertinent to examining the role of the various sources of competitive advantage in service industries.
3. Nelson (1970) and Darby and Karni (1973) developed a schema to isolate the differences between search, experience and credence products. *Search* qualities are attributes which a consumer can determine prior to purchasing a product; *experience* qualities are attributes which can only be discerned after purchase or during consumption; and *credence* qualities are characteristics which the consumer may find impossible to evaluate even after purchase and consumption. Zeithaml (1981) proposed using these characteristics to place goods and services on a continuum from *"easy to evaluate"* to *"difficult to evaluate"*. Her basic premise is that most goods fall to the left (closer to " easy to evaluate"), while most services fall to the right of the continuum due to three distinguishing characteristics --intangibility, non-

standardization, and inseparability of production and consumption. These characteristics make services more difficult to evaluate and forces customers to rely on different cues and processes when evaluating services.

Positions of advantage and performance outcomes

Three generic positions of advantage namely, cost leadership, differentiation and focus, identified by Porter (1980), have received widespread acceptance in the literature. These positions of advantage are presumed to lead to superior performance, operationalized as market share and/or profitability. The success resulting from adoption of these positions is illustrated through case histories by Wright (1988). However it is insightful to note, that, by itself, being the lowest cost producer may not be a sufficient basis for SCA. Hall (1980) in his study of successful firms points out that a position of cost leadership must be tempered by attention to quality and pricing policy while a differentiated position must also incorporate an acceptable cost structure and pricing policy.

Sustainable competitive advantage: A dynamic concept

The final implication of the model is that SCA is an everchanging and dynamic concept. The sustainability of present advantages is a function of the source of the advantage, the industry and the intensity of competition (Ghemawat 1986). Thus, Porter (1985) suggests that it is usually necessary to offer competitors a moving target by constantly reinvesting to improve the barriers to imitation. Such a challenge exists for firms in industries where the "rules of the game" remain the same. An even greater threat is presented by firms pursuing new-game strategies (Bauron 1981), or adopting a new strategic intent (Hamel and Prahalad 1989), which can radically alter existing industry structures. Thus, the maintenance of a sustainable competitive advantage requires the constant monitoring of the sources of advantage as well as reinvesting in the barriers to imitation.

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AN EXPERIMENTAL INVESTIGATION OF THE EFFECT OF PERCEIVED SERVICE QUALITY ON CONSUMER SATISFACTION WITH SERVICE ENCOUNTERS

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Abstract

Perceived service quality represents consumers' judgment about their overall experience with a firm. This construct has recently been introduced as being qualitatively different from consumer satisfaction. Both satisfaction and service quality judgments result from a comparison of expectations with perceived performances. In the research reported here, we studied the interplay of service quality and consumer satisfaction with service encounters. In an experiment, we found that a firm's level of service quality marginally influenced satisfaction ratings of individual service encounters.

INTRODUCTION

The construct of service quality has recently been introduced in marketing to represent consumers' judgment about their overall experience with a firm (Parasuraman, Zeithaml and Berry 1985; 1988; 1991). Service quality is viewed as a global evaluation, similar in many ways to an attitude (Parasuraman, Zeithaml and Berry 1985; Oshavsky 1985). It is supposed to be determined by the degree and direction of discrepancy between consumers' perceptions and expectations. More specifically, Parasuraman, Zeithaml and Berry (1988) suggested that service quality, as perceived by consumers, stems from a comparison of what they feel service firms should offer with their perception of the firm's performance over repeated transactions. They provided empirical evidence that service quality goes beyond consumers' reactions to the tangible and technical attributes of a service to encompass broader elements of the marketing exchange such as reliability, responsiveness, assurance and empathy.

Moreover, Parasuraman, Zeithaml and Berry (1985) claim that the construct of service quality is qualitatively different from consumer satisfaction. Both satisfaction and service quality judgments result from a comparison of expectations with perceived performances. However, the two constructs differ on the target of this comparative process. Whereas satisfaction relates to a specific transaction, service quality is derived from the cumulative experience with a firm.

Even though this argument in favor of a distinctive conceptualization of service quality and consumer satisfaction seems intuitively compelling, no research has yet provided empirical evidence investigating the precise relation ruling the interplay of these two constructs. If satisfaction judgments over time contribute importantly to the perception of quality, they are not the unique determinant of consumers' global attitude toward a service firm. As suggested by Parasuraman, Zeithaml and Berry (1985), consumers may be able to recall many instances when they were satisfied with a specific encounter without judging the service firm of high quality.

Conversely, no one has yet investigated whether and how a firm's service quality can influence consumer satisfaction with specific transactions. Oliver (1981) defined satisfaction as: " a summary psychological state resulting when the emotion surrounding disconfirmed expectations is coupled with the consumer's prior feelings about the consumption experience" (p.27). This broadly accepted definition suggests that the perceived service quality of a firm is likely to influence how satisfying consumers will judge a service encounter.

In the study reported in this paper, we experimentally tested whether differences in a firm's a priori image of service quality could influence the level of satisfaction consumers will express for subsequent service encounters.

CONCEPTUAL FRAMEWORK

FORMATION OF SATISFACTION JUDGMENTS

How do consumers decide whether they are satisfied or dissatisfied with a service encounter? Most models view satisfaction judgments as affective outcomes of an elaborate cognitive process comparing the actual performance of a product to some internal standard. The different approaches vary on the nature of this internal standard and on the comparison rules applied (Dubé and Schmitt 1990).

The earlier views (e.g., Oliver 1977, 1980) were based on multi-attribute models of attitude formation and presented the internal standard used in satisfaction judgments uniquely as the probability of occurrence of a bundle of attributes. Later research has provided empirical evidence for other cognitive standards (e.g., best-brand norms), and for product performances beyond the effect through the disconfirmation of expectations (Cadotte, Woodruff, and Jenkins 1987; Tse and Wilton 1988; Woodruff, Cadotte, and Jenkins 1983). Recent research has provided empirical evidence of the role of emotions and feelings experienced during consumption in the formation of satisfaction judgments (Dubé-Rioux 1989; Westbrook 1980; 1987).

Most current models view satisfaction judgments as a multi-stage process: consumers hold pre-consumption

expectations (or any other internal standard), observe product performances, compare performances with these expectations, form disconfirmation perceptions, combine these perceptions with expectation levels, and finally form satisfaction judgments. Both cognitive and affective aspects of a consumption experience are hypothesized to combine additively to produce the satisfaction judgment according to a continuous, monotonic, and linear combination of discrepancies between actual performances and past expectations. According to Oliver (1980), satisfaction ratings are derived from the surprise - or absence of surprise - resulting from this comparison. With respect to predicted outcomes of expectancy disconfirmation, they range from positive (obtained outcomes exceed the expectations), to neutral (obtained outcomes exactly meet the expectations), to negative (obtained outcomes fall short of the expectations). Woodruff et al. (1983) suggested that states of satisfaction (positive outcomes) and dissatisfaction (negative outcomes) occur only when perceived performances fall outside a "zone of indifference" surrounding expectations.

Recently, these views of consumer satisfaction have been extended to suggest that the construct of satisfaction may correspond to psychological states which are not only qualitatively very different but also entail different post-purchase behaviors (Dubé-Rioux 1989; 1990; Oliver 1989). Oliver (1989) has presented five consumption modes ranging from a vague sense of contentment arising from the absence of problems to an intense emotional response much more likely to get translated into action. A similar proposition was made by Dubé-Rioux (1990). She categorized satisfaction judgments on the basis of the emotional intensity of consumption experiences and she showed that they involved different memory structures and processes. These recent developments point to the need to delineate the limits within which the expectancy disconfirmation paradigms can accurately describe and predict satisfaction judgments.

THE EFFECT OF SERVICE QUALITY ON SATISFACTION JUDGMENTS

If a firm's perceived service quality influences consumer satisfaction with future service encounters, should we assume that it operates in the same way as the other internal standards suggested in the literature on consumer satisfaction? Under this view, a given service encounter should create different levels of satisfaction depending on the a priori image of service quality consumers bring to the transaction. Following Oliver's argument, the higher the perceived service quality of a firm (i.e., the higher the expectations), the lower should be the level of satisfaction with a specific service encounter. Conversely, the same service encounter occurring with a firm of low perceived quality should be judged as being more satisfying by the mere fact that the negative expectancy disconfirmation is lower.

We investigated this research question in a laboratory experiment. Subjects expressed their level of satisfaction with a series of service encounters. Before being presented with the service encounters they had to judge, subjects had formed one of three levels of perceived service quality for the firm delivering the service: good, bad and neutral (neither good nor bad). We hypothesized that the level of service quality expected after repeated exposure to a service firm would influence satisfaction ratings of specific service encounters. Furthermore, if perceived service quality operates similarly to other internal standards, then, recent developments in consumer satisfaction research (Dubé-Rioux 1989; 1990; Oliver 1989) would suggest that satisfaction judgments should be differently influenced by neutral compared to good or bad image of service quality.

THE EXPERIMENT

OVERVIEW OF THE STUDY

In a laboratory experiment conducted on computer, we simulated how consumers may develop their perception of service quality on the basis of repeated exposures to a service firm and later use this global attitude to form satisfaction judgments for subsequent service encounters. Consumers' perceptions of service quality in three casual restaurants were induced in a first experimental task. Subjects later provided satisfaction ratings for a series of service encounters occurring in the same three service firms.

METHODOLOGY

Subjects. Ninety-two undergraduate students, attending summer class at a major eastern american university, participated to the study. The average age was 23. Subjects were recruited to participate in a study on consumer satisfaction and they were paid $5.00.

Experimental stimuli. Service performances (profiles of servers) were used as experimental stimuli. They consisted of verbal descriptions of servers' traits, attitudes or behaviors as well as consumers' feelings (see table 1). Each profile contained four of these features.

Two pre-tests were necessary to develop and empirically validate three sets of stimuli that elicitated differentiated levels of service quality (good, bad, and neutral). To control for differences other than the level of perceived service quality of the firm, each set of profiles had to present a high consistency among subjects with respects to the level of service quality assigned to the profiles, and this level of consistency had to be comparable across levels of quality. Respondents to the pre-tests were comparable to the experimental subjects.

The first pre-test consisted of in-depth interviews. Restaurant patrons were asked to give examples of service interactions they had at dinner time in casual restaurants, interactions that: (a) were o.k., but about which they did not have any particular feelings - neutral level of service quality; (b) were positive and left them with very good

feelings - good service quality; (c) were negative and left them with very bad feelings - poor service quality. They were then asked to describe servers' attitudes and actions (both verbal and non verbal) in each of these service interactions. The order of presentation of (a), (b), and (c) was counterbalanced across respondents. Servers' attitudes and actions (both verbal and non-verbal) or consumers' affective states were compiled and used in the development of a set of profiles (service performances) to be used as experimental stimuli.

The second pre-test required 20 subjects to validate the final set of stimuli. The name of a server was randomly assigned to each of 78 service performances. Subjects were asked to indicate whether they would associate each profile with good, bad or neutral service quality. The overall level of agreement among subjects for the judged levels of service quality of the series of profiles was 83%. The level of agreement did not vary across categories of service quality ($F[2, 72]=1.19$, $p<.32$).

TABLE 1
EXAMPLES OF TYPICAL SERVICE PERFORMANCES FOR EACH LEVEL OF PERCEIVED SERVICE QUALITY

Paul (good quality)

Attention to your special needs
Tactful
Offer suggestions
Knows food and wine very well

Charlie (bad quality)

Overly friendly
Mixes up order
Rushing
Gives minimal information

Adam (neutral quality)

Preoccupied
Busy
Gives incomplete information
Amiable

Experimental procedure. Subjects participated one at a time. On entering the laboratory, they were greeted by the experimenter and seated in front of a computer. Subjects first practiced and memorized the two sets of answer keys used in the experiment (+, N, -). They then immediately proceeded to the first task which consisted in the formation of service quality perceptions. After having completed a series of tasks administered on computer (not reported in this paper), subjects were asked to give satisfaction judgments for six service performances, each being associated with one of the three previous restaurants.

Experimental tasks. In the experimental task of formation of service quality perceptions, subjects were presented with 18 server profiles, one at a time, and they were asked whether these servers would leave them with positive, negative, or neutral feelings at dinner time in casual restaurants (good, bad and neutral levels of service quality). They answered by pressing the appropriate key on the keyboard. For each trial, after they had given their response, subjects received feedback on the service provider workplace (one of three restaurants). The name of the restaurants were: Dew, Lon, and Quad. These had been pre-tested to be equally memorable and equally suited for casual restaurants. They were randomly assigned to one of the three levels of service quality for each subject. The order of presentation of the 18 profiles was randomized for each subject.

Each restaurant name was associated with 6 profiles which had been judged as typical of good, bad or neutral service quality in the pre-tests. Therefore, after having expressed their individual perception of a profile and being informed of the name of the restaurant where this service encounter had occurred, subjects would gradually associate one of three levels of service quality with each restaurant (good, bad, or neutral).

As a manipulation check of perceived service quality, the same 18 profiles were blocked by restaurant, and presented on the screen for a second time. Subjects were asked to form an overall impression of the service at Dew, Lon and Quad by pressing the same answer keys as for the individual profiles. Subjects whose judgments of perceived service quality were not consistent with any of the hypothesized levels were rejected. The data of one subject were excluded from further analysis on the basis of this criterion, leaving a sample size of 91 subjects.

In the second experimental task (satisfaction judgments), subjects were presented with six service performances, two of them taking place in each of the three restaurants for which they just developed an image of service quality. These service performances were selected to cover a broad range of satisfaction ratings while being only moderately consistent with any of the three levels of service quality.

In a paper and pencil task, subjects indicated how satisfied they would be in different dining situations (11-point scale, not at all satisfied - extremely satisfied). The instructions were the following:

> "First, take a few seconds to form an expectation of what your experience would be like if you had dinner at Dew, Lon, or Quad. Second, read the description of the server who actually served you during this hypothetical dinner. Tell us how satisfied you would have been with the service you received from this person, in this restaurant."

Each service performance was associated with a restaurant (two profiles for each restaurant). All subjects saw each

service performance associated with the same restaurant name. However, subjects differed on the perceived service quality they had associated with restaurant names.

Experimental design. The experimental design is a mixed design manipulating on a between-subjects basis the level of perceived service quality associated with each service encounter presented for satisfaction judgments. Since each subject was exposed to the three levels of service quality (good, poor, neutral), and that restaurant names were randomly associated with a level of service quality, one third of subjects were expecting to like the service delivered by a service provider, one third were expecting not to like it, whereas the last third of subjects were expecting to have no particular feelings.

RESULTS

Does a firm's a priori perceived service quality influence satisfaction judgments of subsequent service performances? The results of an analysis of variance (ANOVA) conducted on the satisfaction ratings assigned to the six service performances revealed a marginally significant influence of perceived service quality ($F[2, 482]=2.29$, $p<.10$). The mean ratings are presented in table 2.

A contrast analysis revealed that a neutral image of quality differed from a good or a bad one with respects to the impact it had on satisfaction ratings of subsequent service encounters ($F[1, 482]=4.49$, $p<.03$). Across all service performances, when these were associated with a priori expectations of neutral quality, i.e., neither good nor bad, it was judged as more satisfactory than when subjects had perceived the firm as being of either good or bad quality (neutral service quality: mean=4.50; good service quality: mean=4.15; poor service quality mean=4.03). Overall, satisfaction ratings of performances associated with good or bad perceived service quality did not differ significantly ($p<.35$).

The lower satisfaction ratings observed with good service quality could be predicted on the basis of the expectancy disconfirmation paradigm. However, it is somewhat puzzling to find the same pattern of results when subjects had a poor image of service quality. To get further insights, individual analyses were conducted for each service performance. A priori perceived service quality induced significant differences in satisfaction ratings only for two out of six performances. The overall mean satisfaction ratings of these performances were respectively 2.26 ($F[2, 94]=4.50$, $p<.05$) and 3.81 ($F[2, 95]=2.41$, $p<.10$). Individual contrasts analyses revealed that, in both cases, subjects were more satisfied when they had expectated service quality to be neutral than when they were expecting it to be either good or bad.

TABLE 2
SATISFACTION RATINGS* OF SERVICE PERFORMANCES AS A FUNCTION OF PERCEIVED SERVICE QUALITY

	Perceived service quality**		
	Good Quality	Bad Quality	Neutral Quality
Performance 1	6.15 (26)	5.65 (39)	5.53 (32)
Performance 2	6.04 (42)	5.23 (21)	6.32 (34)
Performance 3	5.50 (30)	4.76 (39)	4.96 (28)
Performance 4	2.92 (26)	3.50 (38)	4.82 (34)
Performance 5	2.00 (42)	1.89 (19)	2.75 (36)
Performance 6	2.50 (30)	2.53 (39)	2.53 (28)
OVERALL	4.15a	4.03a	4.51b

* Scale of 1-11 (not at all satisfied - extremely satisfied)
** Means with different subscripts are different at $p<.05$. Comparisons are made within rows.

DISCUSSION

The results of this study showed that a given service encounter could create different levels of satisfaction depending on the a priori image of service quality consumers brought to the transaction. They should be considered as preliminary evidence since the overall effect was marginally significant and individual analyses revealed significant differences for a limited number of stimuli.

Does perceived service quality operate in the same way as the other internal standards whose influence has been demonstrated on consumer satisfaction? Following arguments derived from the expectancy disconfirmation paradigm, we had suggested that the higher the perceived service quality of a firm (i.e., the higher the expectations), the lower should be the level of satisfaction. Conversely, the same service encounter occurring with a low perceived quality firm should be judged as being more satisfying by the mere fact that the negative expectancy disconfirmation is lower. Our results did not go in that direction.
Not only the differences were not significant but the directionality of the effects were also inconsistent. In

agreement with recent research in consumer satisfaction, we found that the intensity of post-purchase attitudes mattered in perceived service quality as it has been shown for consumer satisfaction. Significant differences in satisfaction ratings of service performances were observed between neutral and good or bad levels of service quality. Future research should investigate whether the effect of neutral service quality as it was manipulated in this study (i.e., neither good nor bad service quality) is different from not having a clear perception, or no perception at all, of a firm's service quality?

Future research should replicate this study with real consumption experiences and in other domains of consumption to test the reliability of the findings. The study should be replicated using an experimental design in which the manipulations are done exclusively on a between subjects basis. In addition, better ecological validity could be obtained if a longer time lag separates the formation of service quality perceptions and the satisfaction judgments.

Turning to the investigation of the underlying processes involved in satisfaction judgments and their interplay with service quality, the results highlight the need for specifying in details the nature of the information as well as the processing strategies used by consumers as they do satisfaction judgments and use them to update their perceptions of a firm's overall service quality.

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SERVICE BREAK-DOWNS
A STUDY OF CRITICAL INCIDENTS IN AN AIRLINE

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Abstract

The article presents the results of an empirical study of critical incidents in a Swedish airline. The discussion is based on interviews with 320 customers and 80 airline employees. The study focuses on negative critical incidents in the relations between the service provider and business passengers using the Critical Incident Technique (CIT).

The study reveals, among other things, that there is a considerable difference between the way customers perceive critical incidents and the view of the airline employees as to what causes critical situations for the customer. Further, it appears that many critical incidents can be explained by faults in the system, in the first instance as regards informing and communicating with customers.

Introduction

Quality defects cause service companies considerable costs. What costs is not quality but lack of quality. Getting it right from the start, the zero fault strategy, has become the lodestar for the leading companies. In many service companies 30% of the staff are employed in 'correcting the mistakes made by the others' (cf Crosby 1980). Crosby sees three factors as being particularly important for profitability. Firstly, high quality means that the company can charge a higher price. Secondly, high quality entails lower costs and thus higher income. Thirdly, those companies which are known for high quality have a considerable advantage when it comes to image. This gives them a competitive edge. Thus quality development leads not only to reduced costs and increased productivity but also to more satisfied customers, and all these factors improve profitability.

To be able to study quality in service companies, one must first be aware of the characteristic features of services and service production. Services are not a uniform concept (Grönroos 1990; Edvardsson & Thomasson 1989 and 1991; Gummesson 1991a and 1991b). There are great differences between different kinds of services, between, for instance, cleaning and security services, educational services, health care services and consultancy services. Despite these major differences as regards the degree of standardization or labour and capital intensity etc, services have certain features in common. The most important of these from a management perspective are that:

* the customer often participates directly and actively in the production process as co-producer;
* services are often abstract, which makes them difficult for the supplier to explain and for the customer to assess;
* many non-standardized services are very closely linked with the service provider as an individual, his knowledge, behaviour, commitment and approach etc;
* services are often made up of a sub-system of services, and quality depends on how the customer perceives the whole.

The fact that services often arise in the interaction between individuals and that the customer often participates in the production process leads to special quality management problems. One aspect of this is that the service producer is unable to control all the conditions and factors affecting quality, with the result that quality may be uneven.

Service quality may be said to be of two kinds (Berry et al. 1985): the quality of a 'normal' service and the quality of the 'exception' i.e.when critical incidents occur. It is only when the customer fails to get what he had expected that he becomes aware of what he usually gets (Levitt 1984). In these deviant situations - special moments of truth - quality perceptions are formed which remain in the customer's long-term memory. They also provide the service supplier with a golden opportunity to turn dissatisfaction into something positive by skilful and professional handling of the situation. If he fails to do this, the result may be great dissatisfaction and a broken relationship. Further, he may gain a negative reputation in the market.

The encounter between the company's employees and the customer is usually termed the moment of truth (Normann 1983) or the service encounter (Czepiel, Solomon & Surprenant 1985 and Lovelock 1988). The service arises in the interaction between customer and staff. Each situation is unique provided that the contact between the actors is not automatized. The customer's perception of these encounters is a crucial component in the evaluation of the quality of the service (Bitner 1988 and Bitner et al. 1990). The customer may reconsider his attitudes and expectations on the basis of defective details. To improve quality and build up trustful and strong customer relations, it is important therefore to attend to faulty details which result in negative critical incidents in service production (Edvardsson 1990 and Edvardsson & Thomasson 1991).

For an incident to be defined as critical, the requirement is that it can be described in detail and that it deviates significantly, either positively or negatively, from what is normal or expected. In this study we consider only negative critical incidents, i.e. customer encounters that do not proceed normally but create friction, irritation and dissatisfaction.

Discussion of Methods

Since services are processes, a method of describing the process aspect of service production and of providing detailed information about critical incidents is needed. The Critical Incident Technique (CIT) captures part of the process, in some cases a very small part. This method enables us to investigate and gain a greater understanding of situations where quality fails, i.e. where a critical incident occurs. CIT was presented for the first time by Flanagan (1954) in an article in the Psychological Bulletin. Flanagan developed the technique to define the critical requirements for certain key positions in the American Air Force. It has since been used in a variety of contexts, including the study of quality failures in the service field (cf, for instance, Bitner, Nyquist & Booms 1985; Bitner et al. 1990; Bitner 1990 and Edvardsson 1989).

Data on critical incidents can be collected in several ways. It is essential to gain access to (Gummesson 1988) and 'get close' to the phenomenon to be studied. Among the methods that can used are personal interviews, focus group interviews, PDS studies (Problem Detection Study) and direct or participatory observation. It is most important and at the same time difficult to gain access (Gummesson 1988). I agree with the conclusions in Andersson & Nilsson (1988), that the personal interview is usually preferable.

Flanagan maintains that it is not collecting the data that is

most problematic but interpreting them and developing systems of classification. I would like to stress the importance of theoretical sensitivity (Glaser 1978) in making interpretations Another key concept is pre-understanding, which may unconsciously steer interpretation, but at the same time an understanding of the context may aid interpretation and lead to an even greater understanding. The emphasis on interpretation means that the researcher adopts a phenomenological/hermeneutic approach: '...the phenomenologist is committed to understanding social phenomena from the actor's own perspective. He or she examines how the world is experienced. The important reality is what people perceive it to be' (Taylor & Bogdan 1984, p.2). Ödman (1985) makes the distinction that phenomenology focuses on 'the immediate phenomena of human experience, such as thinking and feeling' whilst hermeneutics 'is more context directed'.

CITs main advantage is that it generates detailed process descriptions of critical incidents as those interviewed, e.g. customers, perceive them. The customer has the opportunity of describing the situation in his own words. The accounts given describe microprocesses in the relationship between the service producer and the customer. The weakness of the method is primarily that the interviewer can filter, misrepresent or unconsciously misunderstand the respondent.

To ensure as good responses as possible, it is essential for the interviewer to be fully conversant with the service and the service company being studied. At the same time there is a danger that the interviewer's pre-understanding or preconceived opinions may steer the collection of the data. To obtain good validity, it is necessary to describe as unambiguously as possible what is meant by critical incident in the study in question, preferably providing exemplification. Further, it is essential to ask about individual, specific incidents that the interviewee remembers well and to ask follow-up questions to ensure the interviewee has given a both comprehensive and detailed account of the incident in question. The account should be written down directly and even read back to the interviewee to check that it is correct and complete.

To help the interviewer, a simple model of a critical incident - e.g. cause, course and result - may be used as a sort of interview guide. The analysis and interpretation of the accounts generated is an on-going process. The incidents are classified, and gradually a pattern and thus a classification scheme emerges. It does not seem to be a good idea to use a previously established set of categories for classifying critical incidents, as Strauss & Henschel (1991) do.

The analysis is inductive and partly subjective as in all qualitative research. When it is felt that a sufficient degree of saturation and stability has been attained in the data, no more data are collected. The incidents may be classified in several ways. How this is done purely practically is primarily determined by the purpose of the survey and the researcher's interests. He may wish to emphasize typical incidents, particularly 'living' descriptions, which are highlighted, or limited but recurrent factors e.g those which cause critical incidents or are the source of them.

The collection of the data raises several issues which must be resolved in the light of the aim and purpose of the study. These include, for instance, the place where the interviews are to be conducted, the topicality of the incident, who should be selected to provide information, and who should conduct the interviews. When, for example, students are used to collect the data, it is crucial that they understand both the point of the study and CIT and that detailed situation-related instructions for collecting data have been prepared and learnt. Andersson & Nilsson (1966) describe the correct procedure.

'Individual interviews should be conducted on the basis of previously determined models. Having stated the goal, the point of the interview, and having taken up the question of anonymity etc, the interviewer asks about incidents when especially efficient/inefficient behaviour has been observed' (p.30) 'Naturally there is no general form for collecting critical incidents. Interview questionnaires must be devised for each particular survey in accordance with the preconditions and aim.' (p.31)

Data Collection and Analytical Model

During the autumn of 1989 four students under my supervision made a survey of critical incidents in an airline. The study highlighted the cause, course and result of these critical incidents.

FIGURE 1
MODEL OF A CRITICAL INCIDENT

CAUSE --------> COURSE -------> RESULT

Only negative critical incidents were studied. The sample consisted of 320 business passengers and 80 employees representing front staff. The selection of interviewees and critical incidents was based on certain criteria. The requirement as regards the business passengers was that they had experienced the incident themselves and that it had occurred during the last two years while they were travelling on business. The respondents were selected at random at four different airports. The data were collected at different times over the course of a month. The respondents were each asked to give information about two critical incidents. As regards airline staff, the requirement was that they worked in the front office (had daily interactions with customers) and had been employed for at least six months and that the incidents had occurred during the last two years. Furthermore, the critical incident was to be seen from the perspective of the business passenger.

The advantage of including both customers and employees is that it enables the researcher to identify possible differences in their attitudes to ordinary problems in the service offering. In this study we did not interview both sides of the dyad involved in the same incident as was for example done in Brown & Schwartz (1989).

The method used to collect the data was the personal interview where the respondent was asked to recount in detail in his own words a critical incident he had experienced. The interviews were conducted at four airports with two students acting as interviewers and two others keeping a record. The accounts were between a half and one page in length.

The students classified the critical incidents independently of each other. Where differences occurred, they were resolved through discussion. Flanagan claims that the decisive test of whether an incident may be adjudged a fact is whether the observation is 'objective' in terms of the probability that different interviewers would arrive at the same result. In our case the majority or about 90% of the critical incidents were classified in the same way.

The analysis began with a careful scrutiny of the accounts of the critical incidents. This revealed certain clear patterns in the material, which made it possible and meaningful to classify the incidents in accordance with the model. The causes of the critical incidents could be divided into source (= where) and type (= what). During the course of the critical incident a certain tendency as regards passivity or activity on the part of the two parties, the customer and the service provider, could be distinguished. The result of the critical incident as regards

customer relations could be classified as a strengthened, unchanged, weakened or broken relation with the airline.

The critical incidents were classified into main categories and sub-categories. An example of a main category is air transport, which concerns critical incidents occurring at the airport or on board the aircraft; the sub-categories here are: delayed flight, cancelled flight, delayed luggage, over-booking and lack of information.

I have chosen to present the results in table form and by means of some illustrative examples. The results of the interviews with business passengers are presented first, followed by employees' accounts.

Results - Business Passengers

Cause

TABLE 1
BUSINESS PASSENGERS' PERCEPTION OF THE SOURCE OF CRITICAL INCIDENTS

	Number	Proportion
Air transport	274	85.6 %
Ground transport	32	10.0 %
Other incidents	14	4.4 %

The commonest source of critical incidents in the view of the business passengers interviewed is related to air transport, i.e. what happens at the airport or on board the aircraft. The conditions causing the critical incident are ranked on the following descending scale: delays, cancelled flights, delayed luggage, over-bookings and lack of information. The first two factors account for 82% of the dissatisfaction. When it comes to ground transport, the critical incidents are often the result of the airport taxi being late or not coming at all.

Course

TABLE 2
THE ACTIONS OF THE BUSINESS PASSENGER

	Number	Proportion
Active	76	23.8 %
Passive	244	76.2 %

The above table shows that in most cases the business passengers said that they were passive i.e. they did not do anything to try and resolve the problems resulting from the critical incident. They appeared to have confidence in the employees expecting them to sort out the problems. This seems quite natural. Most people deem it impossible to do anything about the weather or technical problems with an aircraft.

Results

TABLE 3
THE EFFECT OF THE CRITICAL INCIDENT ON THE BUSINESS PASSENGER'S RELATIONS WITH THE AIRLINE

	Number	Proportion
Relation broken	8	2.5 %
Relation weakened	42	13.1 %
Relation unchanged	256	80.0 %
Relation strengthened	14	4.4 %

Table 3 shows that in 85% of the cases the critical incident resulted in unchanged or strengthened customer relations. Thus the airline was in many cases able to deal with the situation in a satisfactory manner from the customer's viewpoint. In the following section a number of individual incidents are presented in order to illustrate the problems facing an airline. The low proportion of broken relations may presumably be explained by the fact that the airline has in principle a monopoly.

A Critical Incident Involving Delay

Delays are the most frequent causes of critical incidents in air transport. In this specific instance the business passenger was delayed by a 'technical fault'. The staff were alert and exercised their authority to issue vouchers. However, dissatisfaction arose because insufficient information was given about the delay. The expression 'technical fault' was felt to be very diffuse and created much irritation. The situation resulted in a weakening of the relations with the airline. The business passenger claimed that 'if the airline explained why the plane was delayed, it would increase the passengers' willingness to accept the situation'.

A Critical Incident Involving a Cancelled Flight

The next most common cause of critical incidents after delays is cancelled flights. Cancellation is often due to technical faults or bad weather. The situation described below occurred when a business passenger's flight was cancelled because of a technical fault. The passenger was convinced that the reason for the cancellation was that there were two few passengers booked on the flight. The process can be briefly described as follows: initially, insufficient information was provided as to the cause of the delay; when the flight was later cancelled, the businessman was very annoyed. He had lost valuable time for work and the staff 'did not care' and their attitude was 'disgraceful'. The incident resulted in a negative attitude towards the airline. The man pointed out that time was most important to him as a businessman. 'If the airline cancels too many planes, in the end you lose patience and take the train instead'.

A Critical Incident Relating to the Airport Taxi

The airline provides ground transportation such as airport buses and taxis for its passengers. The critical event in question was caused by a lack of service on the part of the taxi company. The passenger missed his flight because the taxi that had been ordered earlier did not come. The result was that the businessman was unable to attend an important meeting with a customer and his relationship with the airline was weakened. The staff did not attempt to assist him resolve the problem by arranging alternative transport. The ironic comment from the passenger was telling: 'It is exciting every time I order an airport taxi'. The airline did not accept responsibility for the situation and the passenger received no compensation for the inconvenience.

Results - Airline Staff

Cause

TABLE 4
STAFF PERCEPTION OF THE SOURCE OF CRITICAL INCIDENTS

	Number	Proportion
Air transport	58	72.5 %
Ground transport	12	15.0 %
Other incidents	10	12.5 %

The staff believed that over 70% of the critical incidents arose

in connection with air transport. Most incidents concerned delayed or damaged luggage. The interviews also showed that cancelled flights, delays and over-booking led to dissatisfaction among passengers.

Course

TABLE 5
THE STAFF VIEW OF THEIR ACTIONS

	Number	Proportion
Active	68	85.0 %
Passive	12	15.0 %

The table indicates that 85% of the staff said they were active in trying to resolve the critical incidents. They felt they were helpful and tried to reduce irritation by compensating business passengers with vouchers.

Results

TABLE 6
THE EFFECT OF THE CRITICAL INCIDENT ON THE BUSINESS PASSENGER'S RELATIONS WITH THE AIRLINE (ACCORDING TO STAFF)

	Number	Proportion
Relation broken	0	0
Relation weakened	16	20 %
Relation unchanged	48	60 %
Relation strengthened	16	20 %

A Critical Incident Concerning Luggage

From the staff viewpoint lost luggage is the factor that is thought to create most critical incidents for business passengers. In the case in question the passenger checked in his luggage in the usual manner. On arrival at his destination the suitcase had disappeared. The passenger, who was extremely annoyed, started to abuse the staff calling them all kinds of names. The staff felt that the result of the incident was a very dissatisfied passenger, with weakened relations with the airline as a result. However, the suitcase turned up and was taken to the owner by taxi.

A Critical Incident Concerning a Cancelled Flight

According to staff, cancelled flights are a common cause of irritation among business passengers. In this case the cancellation was due to bad weather. On the particular occasion four planes were due to depart at the same time but only one could take off. The course of the incident may be described as follows. The passengers were informed via loudspeakers that those who had international connecting flights were to go on board first. Chaos broke out and several business passengers who did not have international tickets rushed to the counter and the tumult resulted in a VDU falling to the floor. However, the passengers received no information and they finally realized that they had no chance of getting on the flight. The staff learnt, among other things, that a well-organized queue system was necessary in such cases.

Analysis

The survey shows that there is a considerable difference between the ways business passengers and staff perceive the causes and handling of critical incidents. The former saw delays and cancellations as the most common problems, whilst the latter thought that the majority of the critical incidents were caused by delayed or damaged luggage. It emerges from the study, then, that collecting information from the front line staff will not enable us to grasp the customers' perceptions of quality failures. This does not mean, however, that information from front staff is valueless. Several researchers, e.g. Schneider & Bowen (1984) and CEOs such Carlzon (1987) maintain that the 'psychological closeness' between front staff and customers means that there is much valuable information on customer needs, wishes and expectations to be gathered from the service company's contact staff. On the other hand, there is also research that shows that customers and staff have different views about what creates dissatisfaction (cf, for instance, Folkes & Kotsos, 1986 and Nyquist, Bitner & Booms, 1985). My results indicate how important it is to collect data about lapses in quality directly from the customer in order to gain an understanding of quality defects and to develop quality in the right areas.

The study also shows that staff are not aware of the importance of clear and correct information when a critical incident occurs. The customer needs to know why there is a problem and what the likely outcome is, the latter in order to be able to decide how to act. It is a matter of providing the customer with the opportunity of being able to influence his own situation (cf the discussion on perceived control in e.g. Bateson 1985 and Grönroos 1990, ch.3). Instead of announcing the cancellation of a flight due to a technical fault over the loudspeaker system, the situation could be dealt with in the following way. The captain or another reliable person goes into the departure lounge and meets the passengers. He apologizes for the delay and explains what has happened: a punctured nose-wheel or damaged rudder etc. Then he provides an estimation of how long it is likely to take to repair the damage, informs passengers of alternative means of transport: changing flights, bus or train etc and perhaps provides some form of compensation for the delay: a cup of coffee for instance.

One of the conclusions to be drawn from the study is that the airline should train its own staff in the techniques of communication and how to relate to customers when critical incidents occur. Several of those interviewed did not believe the information they received. 'They're lying again when they say it is a technical fault. There are in fact too few passengers, and the flight will lose money. But they won't admit that.'

Further, several of those interviewed felt the information to ... insufficient and late (= not enough information about 'why things are as they are and about what is going to happen'). Credible, clear and rapid information emerges as an import... t source of customer perceived quality. The study shows tha' reliable core services, confidence-inspiring, i.e. knowled... able and motivated staff who show empathy and are able to communicate with and look after customers, and deal with complaints in critical situations are the most important quality creating resources.

Another result of the study is that the undertakings given in publicity material etc are not always fulfilled and this produces irritation and perhaps heightens the customer's dissatisfaction in critical situations. The airline is marketed as the quickest and most time-saving means of transport. The customer should perhaps be informed in the publicity material that technical faults sometimes occur leading to delays and that the weather may also lead to delays or cancellations. The marke-ting of services should not only clarify and concretized the features and value of the service but also steer customer expectations so that they are at the 'right level' in relation to what the service provider can achieve. In this way it might be possible to prevent critical incidents or, perhaps more importantly, reduce dissatisfaction when a critical incident does occur.

In those situations where the business passenger is affected

by delays, the results of the study highlight the importance of committed and knowledgeable staff who have the authority to act. If the customer is met with initiative and commitment, a negative situation can be turned into something positive. Even in this respect some form of education and practical training is necessary to provide staff with a greater understanding of what shapes customers' expectations and perceptions of quality. This should contribute to more professional crisis management.

In order to maintain a high level of service, it would seem necessary to develop more customer-oriented complaint management. Interviews with business passengers and the airline's complaints department indicate that complaints procedures are often felt to be complicated and time-consuming by passengers.

Finally, better cooperation between the airline and the companies providing ground transport is required. The offering or service system should be so designed that the different customer needs are satisfied. The core service is often described in terms of the flight. But a number of support services are required to meet the needs of the customer in connection with the flight. Transport to and from the airport is an essential part of the total service package and is often experienced as an integrated part of the core service.

Discussion and Suggestions for Further Research

In the introduction I observed that the aim of the article was to contribute to a greater understanding of critical incidents. The study shows that CIT is a useful tool and that it provides interesting and meaningful information about customers as well as helping to involve staff in further quality work.

Furthermore, it is perfectly satisfactory to allow students to collect data, provided they are given an opportunity to learn about the purpose of the study and about CIT, are given clear instructions and work closely with a supervisor. The difficulty with CIT is primarily classifying and interpreting the incidents. This can, of course, be done in more than one way, and different researchers would probably reach different conclusions, but the core content should be the same. To prevent preconceived ideas and predetermined interpretative frameworks from steering the analysis, the classification should be carried out by two people separately and differences of classification resolved by discussion, which may result in new categories being established.

In an article in the Journal of Marketing, Bitner et al. (1990) report the results of a number of American studies of service quality in which CIT has been used. The analysis is based on data from 700 incidents in three service areas: airlines, hotels and restaurants. In Edvardsson (1989) I report the results of a survey of 205 service-related critical incidents in sales processes in the engineering industry. Both these studies show similar results to those in this article. CIT has proved to be a useful and suitable method of identifying and analysing defects in service quality. The importance of committing oneself to the customer and of providing clear and 'truthful' information is a recurrent result. This is also supported by Stauss & Hentschel (1991), who interviewed 321 garage customers in Germany. Altogether data on 599 positive and negative incidents were collected. The results showed, among other things, that negative critical incidents affected customer behaviour and in the first place led to complaints, reduced willingness to return to the company and to the spread of negative comments about the company in question to ten people on average.

Placing the customer in the centre makes customer care and complaint management an important aspect of quality development. However, in most companies marketing is primarily concerned with identifying and attracting new customers. It is only recently that attention has also been directed to looking after existing customers in a purposeful and systematic manner. In this context CIT has proved to be a useful tool for determining why the customer is satisfied or not with a certain service or service company. Facts about customer dissatisfaction and the causes of critical incidents are an important part of the basis for continuous quality improvement.

I would therefore like to stress the importance of the following for quality development:

* highlighting the personal quality of the staff;
* being actively considerate towards existing customers;
* being sensitive to signals of dissatisfaction by 'reading' customers and thus discovering quality defects before the customer complains, and making it easier for the customer to complain;
* looking after the customer and correcting faults that have arisen;
* providing generous compensation;
* providing clear, rapid and 'truthful' information.

Service quality is a matter of controlling details in the service delivery. Far too many companies work on the detail 'the encounter with the customer' but really they should be studying critical incidents in the whole production chain. From the customer's perspective it is essential that the whole service chain functions properly.

An important task for management-oriented quality research is to study the service chain in detail and identify critical points in the process. This should provide a basis for changes in the chain in an effort to achieve zero faults, i.e. the non-occurrence of critical incidents. Both new and better methods of analysis are needed for this as well as more in-depth and systematic empirical research focusing on the microprocesses. I believe it would be very fruitful to take critical incidents at different stages in the service chain and interview both customers and the staff involved about the same critical incident. The more we know about critical incidents in the whole service chain, the better the basis for further and continuous quality development.

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THE NEW SERVICE DEVELOPMENT PROCESS: AN ASSESSMENT

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Abstract

Although the development of new services has become increasingly more important to the U.S. economy, its importance has not been mirrored in the academic literature. This paper reviews the extant literature associated with new service development. The authors also offer a number of testable hypothesis which should be tested by future researchers in the field.

Introduction

In 1990, the value of services accounted for 54.2% of total personal consumption in the U.S. (Economic Indicators 1991). While this is a continuation of a long term trend, it does signal that the service marketplace is becoming increasingly competitive. Many traditional service firms have expanded their offerings and recently deregulated firms have rapidly become fierce competitors. Manufacturers, alarmed at their declining share of consumers' spending power, have begun augmenting their products with ancillary services or by adding core services to their traditional product mix. In addition, there has been an influx of foreign service competitors eager to tap into the largest service market in the world.

Changes in both service demand and service supply schedules have put added pressure on service managers to continually refine existing services and to develop new services. New and improved services, like products, offer a brief monopoly and opportunity for increased sales/revenues.

Despite their competitive and profit importance, the development of new services appears to be a neglected area in the marketing literature. An examination of published work indicates that many important questions and issues remain unexplored. The purpose of this paper is two fold: first, to comprehensively review the extant literature on new service development; and secondly, to offer a number of testable hypotheses which can be used to guide future investigations in this area. For discussion purposes, the generic term "product" will refer specifically to tangible market offerings and the term "service" will refer to intangible market offerings.

Are Products And Services Marketing Equivalents?

One widely debated topic in the marketing literature concerns the degree of difference between the marketing of products and services. Several writers have argued that the differences are minimal (cf. Enis and Roering 1981), while Levitt (1972) goes even further and stated that there were no such things as service industries. He argued that there were only industries that provided varying degrees of service, all industries should be considered service industries.

Others have identified purported key differences between products and services. Berry (1980) noted that services have three characteristics which separate them from services (intangibility, simultaneous production and consumption, less standardization and uniformity). Perishability and the problem of matching demand and supply is often noted as a fourth key difference between services and products (Lovelock 1988; Zeithaml, Parasuraman and Berry 1985; Sasser 1976).

Whether products and services are different from one another is an important issue when considering service development. If products and services are essentially comparable, then established product development models would seem to be equally applicable in a service context. If services and products are essentially different, then new service development models are needed or new product development models should be modified to apply to new services.

Separate But Equal

Lovelock (1984) argues that product development offers some useful conceptual frameworks which when tailored can be used in guiding the development of services. In particular, Lovelock notes that services, like products, need to be developed by following a systematic series of steps which provide managers with information on which to base their acceptance or rejection of the proposed service. A similar viewpoint is found in Clements, Stiff and Czepiel (1984) who found agreement that product development models are applicable to services. However, they also reported the need to involve employees in the evaluation and implementation stages because of the inseparability of production and consumption (p. 65).

Lovelock's philosophy of comparability seems to have been the accepted norm in the early service development literature. Product development models usually served as a beginning point for most discussions of new service development. However, as service marketing experiences continue to grow, differences between products and services, and between different service industries began to emerge.

Previous studies have provided evidence that the service encounter (Schneider 1980), the role of service providers (George, Weinberger and Kelly 1985), the measurement of service quality and satisfaction (Parasuraman, Zeithaml and Berry 1985), and the decision making process (Bolton and Drew 1991) were separate from products and unique to services. Therefore, it is reasonable to expect that the new service development process should be separate and unique as well. Adequate planning for new service development is essential, and failure to implement an appropriate new service development program will reduce the viability of any service marketing firm.

Review Of The Literature

A review of the theoretical and quantitative literature on new service development suggests that it can be divided into two areas. First, there is a set of articles which explores macro-based concepts. These studies have explored the nature and number of stages necessary to develop successful services. Second, there are a number of more micro-oriented studies which examine the strategies and procedures that should be used at each stage of the new service development process. After identifying and discussing the major investigations in each of these two areas, hypotheses are offered which can be used to guide new service development research in the future.

Macro Based Concepts

The Booz-Allen & Hamilton (1982) model of new product development seems to serve as the starting point for most macro-based service development articles. The Booz-Allen & Hamilton model describes eight stages in the product development process. They are: develop a business strategy, develop a new product strategy, idea generation, concept development and evaluation, business analysis, product development and testing, market testing, and commercialization.

In recent years, a number of new service development models have appeared in the literature. Bowers (1987; 1989) modified the Booz-Allen Hamilton model by basically substituting the word "service" for the word "product" in their model. Bowers (1989) justified his use of the Booz-Allen Hamilton model by arguing that it can be used in a service context if relatively minor alterations are performed in the idea generation, service development and evaluation and market testing stages.

The Donnelly, Berry and Thompson (1985) model for financial services development condensed the process into six stages; strategic guidelines, exploration, screening, comprehensive analysis, development and testing, and introduction. More complex models of new service development are offered by both Bushman and Cooper (1980) with their eleven step model and Scheuing and Johnson (1989) who advocate a complex fourteen step process. The Bushman and Cooper model is designed to be used in healthcare and includes a step associated with applying for a certificate of need, while the Scheuing and Johnson model is more general and can be used for any services.

H1: Since services are intangible, the new services development model requires more stages than the new product development model.

The two articles by Bowers (1987; 1989) provide the only quantitative investigations into new service development models; although both articles are obviously performed on the same data set. In each cases, he used stages of the Booz-Allen & Hamilton as an independent variable. Bowers (1989) is the more comprehensive of the two articles as it explored the differences in stage frequency usage for three service industries: banks, insurance companies, and hospitals. Two stages [Product Development and Testing and Market Testing] were infrequent practices in all three service industries investigated and two others [Develop a Business Strategy and Business Analysis] were highly utilized by all.

However, Formal Idea Generation was an infrequent practice in banks but more likely to be used by insurance firms; hospitals were most likely to engage in Concept Development and Evaluation. These findings, although not statistically explored by Bowers, suggest that development stages are weighed differently by different service industries.

H2: Due to differences in market conditions and regulations, different service industries will emphasize different stages in the new service development process.

As of yet, however, no broad based studies have examined the degree to which service firms in general use a comprehensive new service development model to create new services. Donnelly, Berry and Thompson (1985) note that new services encompass a

wide variety of possibilities, some of which need more "development" than others. New services include major innovations, new service lines, additions to existing service lines, and modifications of existing services (p. 136-137). Ayers and Clancy (1985) described them as service enhancements, new products, and stand alone business. Clearly, some new services are also not as likely to require as much development as those which are more unique. Ayers and Clancy also report that the development process often requires "short cuts" when management applies time frame pressures or when the new service is brought in by outside vendors. In the latter case, the process begins with service evaluation.

H3: Service firms do not use a formal new service development process for all new services added to their service mix.

Most new service development studies have been based on large service firms (cf. Scheuing and Johnson 1987). Numerically, small service firms are much more common. Small service firms are not likely to have new service managers or new service development committees. Therefore, the majority of service firms may not use a formal and systematic approach to new service development.

H4: Smaller service firms are less likely to go through a formal new service development process than are larger service firms.

Micro Based Research

Variations on the Booz-Allen and Hamilton model can be considered the basis of most new service development models. Therefore, their eight stage model provides a useful framework for organizing new service development articles. When micro or development stage specific articles are ordered according to the sequential steps of the model, it quickly becomes apparent that some stages have been written about by a few writers but the rest are virtually unexplored. Specific studies which discuss effective approaches for new service strategy, development and evaluation are needed.

The first two stages in the Booz-Allen Hamilton model, developing a business strategy and developing a new product strategy, tend to imply a fairly sophisticated strategic management orientation. Indeed, Booms, Davis, and Guseman (1984) report that a top management commitment to innovation, an encouraging corporate culture and the creation of facilitative subsystems are key components of the innovative service organization. Donnelly, Berry and Thompson (1985) talk about "strategic guidelines" and "strategic service roles that new services should play and the priority market segments that new services should attract (p. 147)." However, neither presented empirical evidence that service firms actually engaged in these activities.

H5: Business strategies and new service strategies are not usually developed by most service firms.

As a corollary hypothesis, larger firms are more likely to have both the resources and the requirement to engage in strategic planning.

H6: Business strategies and new service strategies are more likely to be developed by larger service firms than they are by smaller ones.

The next stage of the Booz-Allen and Hamilton model is idea generation. Several writers have written about this new service development function although there is little empirical literature. Schneider and Bowen (1984) among others have proposed that the employee is also an important source for new ideas since they act as boundary spanners between the firm and the consumer while the service is being delivered.

H7: Employees are a useful source of new service ideas for both small and large service firms.

Lesh and Gilly (1986) identified service enhancements, competition, new product design processes, new technology, and regulatory changes as potential sources for new ideas in services. Langeard, Reffait and Eiglier (1986) saw new service ideas as the result of diagnosing unmet customer needs and unused capacity or skills. They also found that project managers received no formal training in creativity. However, Thomas (1978) took a rather dim view of the whole process and wrote, "This task is quite different from new product development. It is highly abstract, and the services that are developed require difficult and expensive testing in the marketplace. Thus there is little real innovation, and a great deal of imitation of services" (p. 164). Scheuing and Johnson (1987) reached a similar conclusion and reported that service industries do not use a specialized new service development function. In a similar fashion, Lovelock (1984) [paraphrasing Wind (1982)] writes that the difficulty in patenting services increases the ease of competitive entry, reduces the incentive for large R&D investment and focuses new service development efforts on "me-too"improvements to existing services.

H8: Many service firms do not have a formal new service development process and imitate competitor's products.

The concept development and testing stage is an extremely important part of the development of new services. It is usually the first stage where consumer reactions to the service are gathered. A concept test is designed to evaluate the degree to which the prospective user (1) understands the service, (2) reacts positively to it, and (3) feels it offers benefits or satisfies unmet needs (Murphy and Robinson 1981). In addition to favorable/unfavorable reactions, Murphy and Robinson (1981) also suggest measuring consumer buying intentions at this stage. Lovelock (1984) notes [paraphrasing Wind (1982)] that the lack of a clear demarcation line between the outlet and the key components of a new service poses difficulties for concept testing.

Shostack (1984) recommends blueprinting new service concepts. When new products are developed, literal or iconic prototypes are often manufactured during the concept development stage. A service blueprint can be considered the functional equivalent of a product prototype. A service blueprint designs a service by identifying processes, isolating potential fail points, and establishing time frames (Shostack 1984). In theory, this process should facilitate the difficult process of simultaneously developing the service product itself and the production/delivery system for the service. Although this kind of concept development and testing is quite valuable, blueprinting decisions may vary with the size of the firm.

H9: Larger service firms are more likely to blueprint new services than are smaller service companies.

Overall, the inability to accurately develop and evaluate an intangible and simultaneously produced/consumed new service means that the new service concept may undergo significant changes before it is ready for business analysis.

H10: The new service concept will not be well developed until fairly late into the process.

The stage of **business analysis** has not received much attention by new service writers. Carmen and Langeard (1980) listed financial considerations, the market and competition, compatibility of marketing programs, technical requirements and government regulations as part of risk appraisal.

Robinson (1983) viewed business analysis in conventional terms of long run sales and cost projections. Others see business analysis as a matter of revenues, compatibility, fit with company image, opportunity costs, start up costs, and a host of other subjective and objective factors.

H11: There is not consensus on what constitutes sound business analysis for new services.

The **product development and testing** stage is difficult to differentiate from concept development and testing because of the difficulty in a priori construction of an intangible service. There is also a problem with heterogeneity. Service results obtained at this stage may not be reproducible later on. Lovelock (1984) recommends mock-ups of proposed service facilities and employee rehearsals of production/delivery roles. Ayers and Shulman (1985) suggest personal interviews with prospective customers and Berry (1989) recommends soliciting opinions from customers and employees and giving the new service a thorough test prior to introduction.

H12: Because of their unique characteristics, services have more external validity problems during product development and testing than do products.

The **test marketing** phase of developing new services involves actually producing the service in a controlled yet real-world market in order to gather information about consumer use and acceptance. Since services are largely intangible it is important to recognize that test marketing for services is more difficult than it is for products (Rethans, Roberts and Leigh 1986). Overt test marketing has additional implications for the service manager since new services cannot be protected by patents like new products. Testing a service can give away valuable information to competitors and can drastically reduce the lead time advantage a firm might enjoy (Donnelly, Berry and Thompson 1985).

H13: Most service firms use covert, abbreviated, or accelerated test marketing.

Instead of performing traditional test markets some facility intensive service firms, such as the Marriott Corporation, have built limited numbers of test units and monitored their performance over longer periods of time (Rethans, Roberts and Leigh 1986). Additional units will only be built after the success of the test units is assured.

H14: Market testing is more likely to be used by service firms with multiple sites.

The last stage in the service development process, **commercialization**, involves the determination of the strategies which will be used to market the service. Berry (1989) argues that for new services to be successful

they must (1) give people a reason to change, (2) give the operation a rigorous test before opening it, (3) market to employees, and (4) make the service real through tangibles.

A study which explores and tests different service commercialization strategies has not been conducted. However, since smaller service firms tend to predominate this sector, several hypotheses can be generated.

H15: Lower levels of formal service development result in higher levels of new service failure.

H16: Failure rates for new services are higher than they are for new products.

Conclusion

In an age when the U.S. economy is generally recognized to have developed into a service based economy, not much is currently known about how firms develop or should develop new services. Product development models, the Booz-Allen & Hamilton model in particular, have usually served as the basis for planning new services even though most academics recognize some basic differences between products and services.

In this paper we attempted to review the literature on service development and to develop a series of hypotheses to guide future researchers. Research which compares different types of services, such as the studies by Bowers (1987; 1989), are needed. Additional studies which examine the develop-ment differences between larger service firms with smaller service firms in the same industry would also be useful.

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INFORMATION PROCESSING OF SERVICES: IMPLICATIONS FOR NEW SERVICES AND RELATIONSHIP MARKETING

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Abstract

This paper examines consumer information processing under two conditions: 1) under initial service evaluations and 2) over the course of long-term service relationships. Marketing researchers have examined consumers' information search and choice decisions for services (cf. Zeithaml 1981; Murray 1991). However, consumer information processing over the course of services marketing relationships have not yet been addressed. First, two modes of information processing -- piecemeal-based and category-based processing -- are discussed. Next, the two modes of information processing are discussed in the context of evaluation of new services and in the context of services marketing relationships over time.

Piecemeal-Based and Category-Based Information Processing

Piecemeal-Based Information Processing

"Piecemeal processing" is a term used to describe an active mode of information processing. Discrete bits of information -- evaluations of service attributes, estimates of service attribute importance, comparisons of service attribute evaluations among service providers or to an ideal, and trade-offs among service attributes -- are combined "piecemeal" fashion through some attribute integration heuristic (for example, adding or averaging). In product literature, for example, piecemeal-based processing models (in the form of algebraic multiattribute attitude models) approximate effortful or active information processing by consumers (Sujan 1985; Wilkie and Pessemier 1973).

Services marketing literature has also, albeit implicitly, adopted a piecemeal-based processing perspective. Zeithaml (1981), for example, suggested that a piecemeal-based model might well explain consumers' choice and evaluation of services. The model is more limited than information processing models of product evaluation, because experience and credence qualities of services mean that consumers are able to utilize fewer prepurchase information sources (see also Murray 1991), rely on fewer cues, and choose from a more limited evoked set than when evaluating products. The model is piecemeal-based, however, in its assumption that consumers evaluate services on an attribute-by-attribute basis. Similarly, models of service quality have properties consistent with the assumptions of piecemeal-based models of information processing. SERVQUAL, for example, posits that differences between expectations and perceptions of service quality dimensions are evaluated on an attribute-by-attribute basis and combined into an overall judgment of service quality (cf. Parasuraman, Zeithaml, and Berry 1988).

As with products, piecemeal-based processing is likely to provide a reasonably good description of consumer information processing of services under effortful conditions. For example, as Zeithaml (1981) suggests, piecemeal processing is probably activated for service choice and initial evaluation. However, effortful processing is just that -- too effortful to continue over the course of repetitive interactions. It is the position of this paper that, over time and with experience, consumers will develop a network of abstract ideas -- called a schema -- about the service provider to facilitate efficient handling of subsequent encounters.

Category-Based Processing

An alternative to the piecemeal-based processing view is "category-based processing" (Sujan 1985). Category-based processing theory recognizes that individuals do not face each new stimulus as if it were a completely novel experience but compare incoming data against information stored in memory (Sujan and Bettman 1989). If a new stimulus (for example, a new restaurant) is recognized as an example of, or as similar to, a category already held in memory (French restaurants), the "schema" for the category (the "French restaurant schema") will be triggered. A "schema" is a cognitive structure, formed through experience, that represents organized knowledge about the stimulus and which organizes incoming information relative to previous experience (Fiske and Taylor 1984; Sujan 1985). For example, a schema is likely to contain information and conclusions derived from the original piecemeal-based processing phase, such as beliefs and expectations about salient attributes, the importance of those attributes, relationships among the attributes, and overall evaluative conclusions (Rumelhart and Ortony 1977; Taylor and Crocker 1981). In addition, a schema may store context, such as typical sequences of events or scripts (Graesser, Gordon, and Sawyer 1979; Graesser, Woll, Kowalski, and Smith 1980).

Over time and with experience, information will be stored in the schema in an increasingly abstract form. That is, rather than storing a collection of all the original encounters (for example, a history of every visit to a French restaurant), the schema may become dominated by prototypical information abstracted from features most commonly associated with the service. For example, the consumer may develop a picture of the quintessential French restaurant, comprised of

the most representative or most memorable elements of all French restaurants ever visited. This prototypical French restaurant may not, in fact, exist. In total, the prototype does not represent any actual French restaurant but represents a little of all of them. More sophisticated schemas may also include estimates of the distribution, central tendency, and variability of information in the schema (Park and Hastie 1987; Sujan and Bettman 1989).

Which Do Consumers Use -- and When?

Some researchers take the view that the move from piecemeal-based to schema-based processing is a natural evolution. They believe schema development to be a logical progression for individuals trying to simplify a complex world. Bartlett (1932, p. 201), for example, notes that a schema is "an active organization of past experiences which must always be supposed to be operating in any well-adapted organic response." Taylor, Crocker, and D'Agostino (1978) concur, "schematic processing would seem to be the rule rather than the exception." As Fiske (1982, p.61) notes, "the first time a novel stimulus is encountered, its components may be evaluated and their evaluations combined, piecemeal fashion...After I decide how I feel about [x], by whatever process, I perceive and evaluate them as a category."

Consumer Information Processing of New Services: Category-Based Processing

Changing from Initial Piecemeal-based to Subsequent Category-based Processing

Piecemeal-based processing probably does a good job of describing a consumer's initial processing of information about services. That is, the first time customers ever visit a type of service provider (the first visit to a French restaurant), they will quite consciously observe and evaluate individual aspects of the service firm's physical surroundings (Bitner 1990), aspects of the service encounter (Solomon, Surprenant, Czepiel, and Gutman 1985), and other customers of the service firm (Bateson and Hui 1986). These individual evaluations will then be combined to form not only the overall, initial evaluation of the service provider but the embryo of a schema. Subsequent visits to various French restaurants will continue to develop the schema, adding new information, new evaluations, increasing the variability of experiences tolerated by the schema, and strengthening the schema.

Certain conditions may moderate the length of time that a consumer requires to shift from piecemeal-based to schema-based processing. Conditions of high involvement (Petty and Cacioppo 1979) or risk (Cox 1967), for example, will probably encourage a consumer to persist in a mode of more effortful processing. Further, certain categories of services may be evaluated via piecemeal-based processing over a greater number of visits than other categories of services. For example, services that are performed on an individual's person (such as health care services), services with intangible results, services that require prolonged and intense interaction with the service provider, or infrequently patronized services may be evaluated via piecemeal-based processing for a longer period of time (perhaps, indefinitely) than services performed on an individuals' possessions (such as mechanic services), services with tangible results, services that require minimal personal interactions, or frequently patronized services.

Implications of Category-Based Processing of New Services

However, it can be seen that only the most inexperienced consumers would come to a service provider without at least some history (even children are taken to restaurants with their parents). Therefore, it is reasonable to assume that most consumers will evaluate a new service provider based on their knowledge of previous service providers in the category. Perhaps the most important implication of category-based processing theory is that the consumer is believed to store emotion or affect with the generic knowledge structure (Fiske 1982; Fiske and Pavelchak 1986). When a new stimulus (service provider) is successfully categorized, category affect is believed to be immediately transferred to the current stimulus. Indeed, schema processing is believed to evoke strong and extreme affect (Fiske 1982). Therefore, when the new restaurant (La Chaumiere) was categorized as a "French restaurant," the consumer was also likely to decide that he/she loved (or hated) La Chaumiere in the same way that he/she loves (or hates) all French restaurants.

Furthermore, a schema is accessed in an all-or-nothing manner. All schema-relevant information - correct and incorrect, specific and evaluative, cognitive and affective -- is "copied" onto the new stimulus (Smith and Graesser 1981). It is the "copying" of the generic schema onto the specific instance that is believed to explain the individual tendency to make inferences and fill in missing information. Rather than puzzle over ambiguous or missing information, individuals infer the details from "default values" stored in memory (Thorndyke and Hayes-Roth 1979). Therefore, if the French restaurant schema includes the information that "all French restaurants are expensive," then the consumer will believe that La Chaumiere is expensive, even before reading a menu. Individuals will even "remember" schema-relevant information that was not presented (Graesser et al. 1980) and may have difficulty distinguishing schema-based inferences from other schema knowledge (Fiske and Taylor 1984). The first time visitor to La Chaumiere may "remember"

that La Chaumiere serves escargots, if the French restaurant schema includes "serves escargots," even if La Chaumiere does not, in fact, serve escargots.

Finally, an activated schema functions as a top-down theory guiding both perception and memory. Incoming information is compared to information in the schema and judged as to degree of consistency or inconsistency (Fiske and Pavelchak 1986; O'Sullivan and Durso 1984; Sujan and Bettman 1989; Taylor and Crocker 1981). As long as incoming information is consistent with the information in the schema, schema-based processing will continue and La Chaumiere will be evaluated like all other French restaurants. However, "La Chaumiere's" fate is not sealed. If La Chaumiere can provide a service experience that is uniquely different -- dramatically different -- the consumer will be stimulated to process the experience by piecemeal-based processing. The process is described in the next section.

Consumer Information Processing of Services Over Time

In the same way that consumers form schemas about types of restaurants, or types or service providers, this article suggests that consumers may form a schema about a single service provider, over time. That is, not only does the consumer have superordinate schemas about "restaurants" and "French restaurants," but regular customers will develop a schema about a typical service experience at La Chaumiere (for example). If consumers do, in fact, form subordinate schemas about specific service providers over time, this has implications for relationship marketing strategies and tactics. For the customer to consider La Chaumiere different from other French restaurants, however, a return to piecemeal-based processing must be stimulated.

Interrupts: Inconsistency, Relevance, and Attributions

As noted above, incoming information is compared to the schema and judged as to degree of consistency. If incoming information is only mildly discrepant from the schema, it will be assimilated into the schema or ignored. Schemas tend to be robust and, especially among experienced consumers, will persevere even in the face of somewhat inconsistent information. In the event of information judged to be only mildly inconsistent, schema-based processing is again expected to continue.

When a stimulus is too inconsistent to be assimilated into the schema, the information will be actively processed to explain the inconsistency. For example, if La Chaumiere were inexpensive, served Mexican as well as French food, or was self-service, such information would be inconsistent with the French restaurant schema. Any number of events might trigger an interrupt in a service encounter: failure to provide good service, disruptive behavior on the part of fellow patrons, or crowding are three examples. One particular type of schema-based processing known as script-based processing is particularly relevant to service encounters (Smith and Houston 1983). A script is an event schema that includes an ordered sequence of actions that satisfy certain goals, identification of the players and their respective roles, as well as information about typical props, the set, and actors' lines (Fiske and Taylor 1984; Graesser, Woll, Kowalski, and Smith 1980). Any breaks in the script will cause an interruption in script-based processing.

Before further processing of inconsistent information, however, the consumer will judge whether or not the inconsistent information is relevant to the schema. Irrelevant information will be ignored (Taylor and Crocker 1981; Srull, Lichtenstein, and Rothbart 1985) and the consumer will return to a mode of schema-based processing. For example, in Smith and Houston's article, an example is given of a bank guard who interacts with a customer on an inappropriately friendly level. Smith and Houston suggest that this break in the script may cause the consumer to experience negative disconfirmation thereby leading to a more negative evaluation of the bank. However, an alternative explanation is that the consumer would consider the guard's friendliness as essentially irrelevant to the overall bank schema and would thus ignore it. To continue the French restaurant example, if the maitre d' were exceptionally friendly, the behavior may be dismissed as irrelevant and the incident is quickly forgotten (or even ignored). The consumer's evaluation of La Chaumiere would remain schema-driven.

If the inconsistent information if judged to be relevant, the consumer may then make an attribution as to its cause. If inconsistent information can be attributed to unstable causes, they may be forgotten (Crocker, Hannah, and Weber 1983). Similarly, if the inconsistency is judged to be beyond the control of the service provider, the consumer may also decide to ignore or overlook the information (cf. Bitner 1991). Again, schemas are robust and, particularly in the case of experienced consumers with well-developed schemas, consumers are predisposed to preserving rather than changing their schemas.

Inconsistent information that is judged to be relevant, and which cannot be explained away by attributing it to external, uncontrollable, or unstable sources, must be reconciled. How this is done depends of the level of inconsistency. Moderately inconsistent information may simply be "tagged" as a mental note to the schema. The schema remains intact and evaluation is made on the basis of schema-driven affect, but a

note is attached that says, in effect, "All is well, except that this one, odd event occurred." Because it received additional attention and processing at input, this atypical "tag" is initially very well remembered (Schmidt and Sherman 1984; Smith and Graesser 1981). If no additional "odd events" occur, or if the occurrence of "odd events" is dispersed over time (Sujan and Bettman 1989; Taylor, Crocker, and D'Agostino 1978), this tagged information will be rather quickly forgotten (Graesser, Woll, Kowalski, and Smith 1980; Schmidt and Sherman 1984). Indeed, there is some evidence that the processing of inconsistent information will act to strengthen the schema by the process of "defending" it (O'Sullivan and Durso 1984).

If the information if highly inconsistent (for example, is encountered in a few, concentrated incidents), the consumer may create a subtype to explain the inconsistency. With creation of a subtype, service provider is no longer evaluated by affect transference from the original schema, but is evaluated "piecemeal" until the new subtype schema is formed (Fiske 1982; Sujan 1985). The original schema remains intact though some modifications are made: estimates of variability and importance of the highly inconsistent attribute are likely to be increased (Sujan and Bettman 1989). Thus, for La Chaumiere to merit its own "subtype," it must create an experience that is unambiguously, undeniably, and extremely different from other French restaurant experiences.

Implications of Category-Based Processing of Relationship Marketing Situations

If La Chaumiere does indeed stimulate piecemeal-based processing, the consumer will form a new subtype. This subtype will function in the future as a schema. Future encounters with La Chaumiere will be compared to past experiences, organized and abstracted in a "La Chaumiere schema." The implications for relationship marketing are many. For example, only dramatically inconsistent behaviors will be noticed and remembered. Small changes in menu, personnel, decor, or other service attributes will be assimilated into the schema and the consumer's affect for La Chaumiere will remain unchanged. If attention is drawn to the changes, or if the changes are sufficiently discrepant from the consumer's schema, the consumer may "tag" the information ("now, La Chaumiere makes their own desserts"). However, if the schema is only tagged, the information will be quickly forgotten and the original schema will dominate. Therefore, if a La Chaumiere patron is asked about La Chaumiere's desserts, he/she will respond from schema memory rather than the tag (and will not remember that they now make their own desserts). Only if changes are unambiguous and dramatic -- the addition of an outdoor patio -- will changes be deeply processed and well-remembered.

Note that all examples provided to this point emphasized that to further improve a schema, change must be dramatic. However, schema-based processing can also be a boon to providers of chronically heterogenous services like restaurant services. That is, small negative variations in service may also be assimilated into the schema, or if tagged, relatively quickly forgotten. Because consumer schemas are robust, they resist changing their opinions of La Chaumiere and original schema-driven affect will be remembered. It is critically important, if consumers do build subordinate level schemas, to create extremely positive initial experiences since future evaluations may be based upon schema-driven affect.

Finally, it is important to recognize that a regular customer already has a positive schema (else, why return?). Thus, for regular customers, any negative experiences may be considered quite inconsistent (and thus processed). Care must be taken to "neutralize" negative experiences, especially for regular customers, so that the experience is not deeply processed. Good experiences, within the range of schema expectations, may therefore be a safer strategy for regular customers rather than risking an outstanding experience that fails to please the customer. Indeed, it is conceivable that regular customers may not like any change from their schemas, but prefer the "effortless" processing of similar experiences. Marketers would benefit from a greater understanding of the information processing procedures of their customers, before executing service changes.

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INDICATORS OF CHARITABLE CONTRIBUTION: FINDING PROFILES OF DONORS IN THE COMMUNITY

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Abstract

Nonprofit groups are keenly interested in finding ways to better understand donor groups, to attract them to their causes, and to hold onto them into the future because about 83% of all gifts to charity in this country are given by individuals. The objectives of this research were to examine the possible relationships among actual charitable giving patterns, exclusive of church donations, and the types and numbers of types of typical classes of community activities/organizations with which these givers were involved. Further, potential refinement on the basis of age, income, gender and marital status was pursued. By analyzing demographic characteristics of financial contributors, a non-profit organization can generate a donor profile to assist in identifying potential donors and design promotional efforts based on a more accurate knowledge and understanding of such donors in hopes of increasing its success in securing financial gifts from the individual sector of society.

Introduction

Fund raising for the approximately 420,000 nonprofit organizations in the U.S. is not only of continuing concern to the leadership of these groups, but also to the many sectors of society dependent upon them (Harvey 1990). It is interesting to note that about 83 percent of all gifts to charity in this country are given by individuals. The rest comes from corporations, bequests and foundations (Giving USA 1988).

One notes that nonprofit groups are keenly interested in finding ways to better understand donor groups, to attract them to their causes and to hold onto them into the future. Also, one sees federal, state and local government funds sources lowering contributions to the nonprofit charitable sector.

A number of different ways have been used by members of the charitable sector to segment the donor market to better isolate those individuals who have the greatest potential for the organizations in question. Division of donor groups on the basis of how much is given, type of gift given, when it is given, class of giver (individual, foundation, corporation, etc.), financial ability to give, geographic location and demographics (age, sex or gender, income, marital status, education, etc.) have been suggested and researched (Francese 1989, Huntsinger 1987, Moore 1983, Yavas and Riecken 1985). Also, Yavas and Riecken (1985) concluded that "time-donation proneness" could be measured by looking at the number of organizations with which a person was involved. They further concluded that the characteristics of time donors closely parallelled those of money donors.

There was, however, no attempt by these authors to relate actual contribution levels to charitable organizations with:

1) types of community organizations that donors were involved in or 2) number of such organizations with which they were associated. The research discussed in this manuscript is focused on the former relationship -- the types of community organizations in which a certain group of financial donors are involved. Also, the number of different types of organizations is examined to seek possible relationships with actual donations to charitable organizations.

As in the case of Yavas and Riecken (1985) organizations such as political parties, church and social service agencies were considered. Also added by the authors were clubs and/or civic groups.

The objectives of the research were to examine the possible relationships among actual charitable giving patterns, exclusive of church donations, and the types and numbers of types of typical classes of community activities/ organizations with which these givers were involved. Further, potential refinement on the basis of age, income, gender and marital status was to be pursued. Since education and income are often used as surrogates for each other, the former was not examined.

Methodology

The sampling frame for the research was a donor list of 2,225 individuals who had given to a major international/community agency within the past two calendar years (1989 and 1990). The county served by the agency was in the midwestern region of the United States and had a population of approximately 225,000 people. The only information available on the donor base was name and address and donation pattern over the past two years.

The basic instrument was sent by mail to the entire list of 2,225 donors in January 1991 and a total of 534 usable surveys were returned. This was a response rate of 24%. It was determined that a check should be made on the "nonresponders" to see whether they were different from the responding group. Hence a short form, only including donation levels and demographic information, was sent to the remaining 1,691. A total of 407 usable responses were received from this wave. In all, 941 responses were received. A Chi-Square analysis was run comparing the "responders" with the "nonresponders" on age, gender, marital status, education, income, geographic location and level of contributions to charitable organizations. There were no statistically significant

differences at the .05 level for any of the variables just cited except gender. In the latter case the proportional split was significantly stronger for the females on the long form than on the follow-up form (long form - females 68.2 %, males 31.8 %; short form - females 55.1 %, males 44.9 %). The conclusion reached was that the two groups were essentially the same in description. Also, since 42.3% of the sampling frame had responded in one way or the other, it was assumed that the responders were representative of the group as a whole. When compared to the county-wide distributions, the donors were older (twice as many 35 and older than county) and more affluent (17 % more with incomes of $35,000 and above than county) and a greater share of females participating than county share.

The data was processed using SPSS and MINITAB to produce the required statistics, frequencies, cross-tabulations and Chi-Square analyses.

Results and Conclusions

The results will be presented as follows. First, the relationships among actual charitable giving patterns, exclusive of church donations, and the types of charitable organizations with which responders are involved will be reported. Next, the relationships among actual charitable giving patterns, exclusive of church donations, and the number of types of charitable organizations with which participants are involved will be discussed. Finally, refinement on the basis of age, income, gender and marital status will be explained.

Giving Patterns vs. Types of Charitable Organizations Involvement

Attention should first be directed to Table 1. This contains the summaries of the frequencies of report of activity type in which the respondents were involved and the charitable contributions made. A total of 405 individuals of the 534 in the sample reported in this combination. This means that 75.8 % of these donors are active in the community. The shares of this group that participate in the separate activities are as follows:
church - 70.6 %, political campaigns - 14.6 %, clubs/civic groups - 41.5 % and other charitable organizations - 34.8 %. Note that the average number of types of groups in which individual donors are involved is 1.6. This will be considered later and is offered only for perspective here.

A Chi-Square analysis was run comparing all possible pairs of charitable contribution distributions for the various areas of activity and the only statistically significant difference that surfaced was in the comparison of those active in church and those active in "Other" community organizations. Though there was some overlap, somewhat clouding the results, what is seen is higher giving levels for those active in community organizations. This might be expected because of the heavier church contribution burden carried by those active religiously. On the other hand seven out of ten of those giving were active in church.

One concludes from this that active church members are a strong target for charitable donations and others active in civic clubs/ organizations and/or other charitable organizations are also excellent potential donor pools. This is reinforced by a study done for the same national organization in a major midwestern city. This proprietary survey (sample size was 424) showed that 66.3 % of respondents were involved in religious activities, 16.5 % in political campaigns, 50.5 % with civic groups or social clubs and 51.2 % with charitable organizations. These results reinforce those found in the current study and especially point to the need to include members of civic groups or social clubs and people involved in charitable organizations as financial donors are sought.

Giving Patterns vs. Number of Types of Charitable Organization Involvement

The second objective of the research was to examine the potential relationship between the number of different types of charitable organizations that a donor was involved with and patterns of family charitable contributions. A summary of these data is contained in Table 2. Though six of the twenty-four cells have less than 5 respondents in them, an examination of the table reinforces that the Chi-Square significance at the .001 level appears to be correct. One notes that as a person becomes involved in an increasing variety of charitable organizations, the value of family charitable contributions definitely goes up. The conclusion is that the active volunteers in the community are also the active donors in the community. In particular one sees that the share of individuals donating over $1,000 moves steadily upward as the number of charitable activity types involved with increases. Further the data in the table point toward an increasing average dollar giving level as the number of activity types with which a person is involved increases.

Demographic Impact on Giving for Community-Involved People

Age and Activity. The Chi-Square analysis of giving to charitable organizations versus age for those involved in church showed a statistically significant positive relationship between age and number of givers and amount given. The share giving over $1000 doubled from ages 36-45 to ages 56-65 and increased another 60 % from 56-65 to over 65. In the case of those active in political campaigns, the sample was too small to draw conclusions. However, it looks preliminarily as though the 56-65 group is most active here and, generally, giving levels and numbers giving increases with age. Turning to individuals involved in clubs and civic organizations, no statistically significant trends were found on the basis of age. There were too many empty cells or less than five cells when the data was cross-tabulated to get usable

Chi-Square information. It does appear from the data that as age increases, giving increases. The 36 and older groups were greater givers. The number of individuals donating over $1000 increased sharply from the 36-45 group to the 46-65 age range with the over 65 individuals being somewhat similar to the latter group. For those involved in charitable organizations, the analysis showed that as age increased the number of donors increased, especially beginning at age 36. Further, the rise in number of individuals donating over $1000 increases markedly with age, but not at the rate found for the "active in church" group. Finally, considering those involved in "Other" organizations, there was little in the way of relationship between age and number of people giving at various levels. However, there was again a finding that giving over $1000 occurred most frequently for those 46 and older. Conclusions with respect to age and involvement: in general those 36 years of age and older would be good targets for charitable donations. Those donors to be targeted for the larger donations should be in the 56 and older groups. Those people active in church are especially good to pursue, followed by those involved in charitable organizations and clubs/civic groups.

Income and Activity. For those involved in church activity it was interesting that 21 of 26 (81 %) reported their income and giving level at over $100,000 and over $1000, respectively. In fact about 25 % of the church active people gave over $1000 in the past two years. Also, as income increased giving and giving level increased. This is in line with the findings of other authors in the past. Also noted was that the $101-$250 level was popular for those under $30,000 in income and $251 and up for those at higher levels. About 63 % of the entire group gave more than $250. Concerning respondents involved in political campaigns, about 35 % gave over $1000 in the past two years. Since only 49 individuals reported in this area, no conclusions are in order. It is interesting to observe, however, that 15 of 17 (88 %) giving over $1000 had incomes in excess of $100,000. About 80 % of the total group gave more than $250. Turning to those involved in clubs or civic organizations, nearly 60 % of those giving over $1000 had incomes greater than $50,000 and 27 of 33 (82 %) that reported this level of giving had incomes over $100,000. Thirty-four (34) percent of the entire group gave over $1000. Again, the pattern of increased giving with increasing income was seen. Nearly two-thirds of these individuals gave more than $250. For the respondents involved in charitable organizations, the same relationship between income and level of giving surfaced. The data revealed that 27 of 28 (96 %) of those whose incomes were over $100,000 gave over $1000. Further 44 % of the entire group gave over $1000 in the past two years to charitable causes and two-thirds of the sample included donated over $250. Individuals who indicated that they were involved in "Other" organizations fell into the same pattern of donors as noted earlier. Eleven of the thirteen (85 %) of those whose incomes were over $100,000 gave more than $1000. Further about 25 % of the entire group of 75 respondents gave over $1000. Also, 60 % gave over $250. Conclusions with respect to income and involvement: as expected, as income increased, giving levels increased. The major target group for donations over $1000 (in two years) would be those with incomes over $100,000. The types of involvement in order of priority for targeting these people would be charitable organizations, political campaigns and "Other" and then active in church and clubs/civic organizations. For donations over $250 the order would be political campaigns involvement, clubs and civic organizations, active in church and "Other." Then finally charitable organization volunteers should be pursued.

Gender and Activity. For those involved in church activity, the statistically significant Chi-Square analysis reveals that women respond more evenly across the various giving levels than men. The men who reported had a tendency to give more at the over $250 level. In the case of the men, 73 % gave over this amount and for the women it was 61 %. Further, 39 % of the men gave over $1000 and 20 % of the women. Next, considering those respondents involved in political campaigns work, 92 % of the men reported giving over $250 and 70 % of the women, but the shares giving over $1000 were both near 37 %. Turning to those involved in clubs and civic organizations, the Chi-Square test revealed no overall statistically significant at the .05 level among the men and women reporting. Though about 30 % of the women and 46 % of the men gave at the over $1000 level. Looking at those respondents who indicated involvement in charitable organizations, no statistically significant differences between the female and male distributions were found. Of the men reporting, 79 % gave over $250 and 65 % of the women did so. Those indicating donations of over $1000 were
34 % of the women and 57 % of the men. Finally, examining the data on the "Other" organization involvement group, the Chi-Square test showed statistically significant differences. Only 50 % of the female respondents indicated giving over $250 whereas for the males this was 72 %. Most interesting was the 43 % to 13 % shares of men and women, respectively, giving over $1000 in the last two years. Conclusions with respect to gender and involvement: It appears that males are better targets for larger donations than females though women give more consistently across the donation levels. Men active in charitable organizations, clubs and civic organizations
and "Other" community activities are potentially more lucrative segments than women for higher levels of charitable dollar donations. Church involved and political campaign involved men are also reasonable targets.

Marital Status and Activity. Church involved findings were as follows. Single individuals cluster in the over $100 to $1000 giving categories (about 69 %), married cluster in the over $250 to over $1000 range (69 %), the divorced group was too small to address in the sample and the widowed are reasonably equally distributed across the over $100 to over $1000 spread (85 %). About 31 % of the marrieds gave over $1000 and about one-fifth of the widowed did the same. Considering those involved in

political campaigns, only the married sample size was useful here. Approximately 86 % of them gave at least $250 in the past two years. Also, 45 % gave over $1000. Turning to respondents involved in clubs and civic organizations, again only the married pool was of sufficient size to comment on. About 75 % gave at least $250 and near 43 % gave over $1000 in the past two years. Though the sample size was small (21), the singles appeared to be in the over $50 to $250 category; 43 % were in the $101 to $250 giving group. Those involved in charitable organizations were then examined. The married sample group was large enough to comment upon. In this case 67 % gave at least $500 and 51 % gave over $1000. Again, though the sample was small (17), the singles were concentrated in the over $100 to $250 donation range for the previous two years. Finally, those involved in "Other" community activities included only a large enough sample to comment on the marrieds. Near 63 % of these individuals reported giving $250 or more. Only 26 % gave over $1000. Conclusions with respect to marital status and involvement: preliminarily, the marrieds are the target group. For over $1000, charitable organization, political campaigns, and clubs and civic organization involvement are the keys. Also, for over $250, political campaigns and club or civic organizations lead the way though other involvement areas are useful too to some extent.

To summarize, this research examined possible relationships among actual charitable giving patterns and the types and numbers of types of typical classes of community activities/ organizations with which these givers were involved. The demographic impact of age, income, gender and marital status on giving for community involved people was also pursued. Results suggest that there are higher giving levels for those active in community organizations, particularly those active in church. This suggests that active church members are a strong target for charitable donations as well as those active in civic clubs/organizations and/or other charitable organizations.

It was also observed that as a person becomes involved in an increasing variety of charitable organizations, the value of family charitable contributions definitely goes up, suggesting that active volunteers in the community are also the active donors in the community. Overall the data suggests an increasing average dollar giving level as the number of activity types with which a person is involved increases.

With regard to age, in general those 36 years of age and older would be good targets for charitable donations. Those donors to be targeted for the larger donations should be in the 56 and older groups. Those people active in church are especially good to pursue, followed by those involved in charitable organizations and clubs/civic groups. As income increased, giving levels increased. The major target group for donations over $1,000 would be those with incomes over $100,000.

It appears that males are better targets for larger donations than females though women give more consistently across the donation levels. Men active in charitable organizations, clubs and civic organizations, and "other" community activities are potentially more lucrative segments than women for higher levels of charitable dollar donations. Men involved in church or political campaigns are also reasonable targets. With regard to marital status, marrieds are the target group. For over $1,000 donations, charitable organizations, political campaigns, and clubs and civic organization involvement are the keys for married individuals. For contributions over $250, political campaigns and club or civic organizations lead the way though other involvement areas are useful too to some extent.

Implications

The sample used for this study was constrained to one charitable organization - a local chapter of a national organization. Thus representativeness of the sampling frame is a concern. There is a question whether the people are representative of all charitable givers, although respondents were active in a wide variety of activities. There is also a question about men and women reporting because a difference in their giving patterns was observed. Men give larger single donations than women, but women give more across the board. Since household income was reported, the question remains who was the dominate force in giving. Because of insufficient sample sizes, profiles of singles vs. married were not run. Thus there is a need to look at bigger pools of single, divorced, and widowed charitable donors.

Future research should further examine donation patterns of men and women. The authors dealt with types of activities but not total number of charitable organizations. Thus there is a need to look at total number of activities per individual donor. Research examining the distribution of charitable giving should examine the similarities and differences for those organizations in which the participant is involved vs. those in which the participant is not involved. Since this study was basically descriptive, there is a need to examine why people participate, donate time and/or money, what benefits do they receive, and why they contribute money to a specific non-profit organization.

With regard to the demographic variables examined, certain age and income groups should be targeted more heavily. The potential strategy of the non-profit organization to target certain market segments for solicitation of financial contributions should follow accordingly. There is a need for greater understanding of donating behavior of individuals since they are the primary donors of all financial gifts to charity. Marketing's contribution to improving the operations of fund raisers has been documented for nearly 2 decades. However, a shortcoming of traditional approaches to market segmentation is their failure to explain fully why people support philanthropy with their donations.

The demographic trends that are affecting businesses are also hitting the not-for-profit organizations. Businesses must carefully target their advertising and promotion efforts to overcome the fragmentation of consumer markets. Likewise, non-profit organizations must evaluate their fund-raising efforts and must carefully target such efforts or they won't succeed in generating adequate contributions from the individual sector of society.

An essential element in improving the strategic effectiveness of nonprofits is to tailor strategies to different markets. By analyzing characteristics of financial contributors, a non-profit organization can generate a donor profile to assist in identifying potential donors and design promotional efforts based on a more accurate knowledge and understanding of such donors in hopes of increasing its success in securing financial gifts from individual contributors.

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TEMPORAL PATTERN RECOGNITION DEFICIENCY

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Abstract

In strategic marketing management, one of the keys to successful performance is the skillful use of mixed strategies. Mixed strategies allow a randomization which keeps an opponent off balance. If it is randomness that forces an optima, then the removal of that randomness by an opponent can be used to his advantage. If the strategic marketing predictability is noticed by the opposition, the perceptive competitor can change the structure of the game from a multi-person game to an unilateral decision making opportunity and maximize his gains. However , if complacency occurs in the firm a consistency in the strategical choice becomes apparent. The predictability in their strategic thinking makes them vulnerable to the competition. But managers do not appear to have the ability to recognize even simple patterns over time. What abilities they do have are not conscious activities. We examine this conjectured problem, *Temporal Pattern Recognition Deficiency*, and attempt to explain this phenomenon.

Pattern Recognition

The Japanese invasion of American industry can be shown to have an amazing predictability of its pattern of first building expertise and capacity internally with a protected market; establishing a small base in southeast Asia to test exporting reception, attacking either the low end or an unwanted niche in the United States within that industry so as to build market share, and then moving upscale. This predictability should have made repeated Japanese incursions into industries vulnerable to attentive American managers. But all too often, the attacked industry ignored the threat until it was too late. If history repeats itself too often, people should catch on. Managers with their finely honed analytical skills should easily recognize and take advantage of such patterns; but few apparently do.

One of the keys to successful performance in modern business is the skillful use of mixed moves (where the optimum tactic is not a single move but a random choice between two or more options). This allows a randomization which keeps an opponent off balance. The removal of that randomness by an opponent can be used to another's advantage. If the tactical predictability is noticed by the opposition, the perceptive player can change the structure of the game from a multi-person game to an unilateral decision making opportunity and maximize his gains.

However, if complacency occurs in the firm a consistency in the tactical choice becomes apparent. It appears there exists some recognition of patterns by firms and firms use that information to better performance; market leaders and pioneers of new niches have long used pattern recognition to observe seemingly unrelated bits of information and associate them into a developing trend (Custer 1986). However, few of the players in the post-experimental interviews of previous studies (Herbig 1989a, 1989b) reported consciously identifying patterns and making use of that information. What little recognition that exists must therefore be intuitive. In prior studies (Herbig 1989a, 1989b), performance (of only simple patterns it must be noted) did increase over what was to have been expected by chance but conscious recognition of the pattern offered did not exist. It may well be that managers can comprehend the aggregate (reputation) or the just prior (credibility) but are unable to identify competitor patterns over time.

Pattern recognition appears to be an unconscious activity for managers if it exists at all. Managers appear to be unable to consciously recognize temporal patterns let alone to respond optimally. If managers could recognize such patterns of behavior by their competition, they have the ability to turn a two player game into a unilateral decision making opportunity with profit maximization potentials. If a firm could identify competitor behavior patterns, it could change a multiplayer game into an unilateral decision making opportunity to maximize profits. This does not appear to be occurring. Managers appear far more adept at recognizing the aggregate (reputation) or the just prior (credibility) than at even simple patterns interspersed through time. This might well explain the managers inability to spot even the most blatant and oft-repeated patterns (such as the Japanese invasion pattern) and react effectively towards the competitors. These pattern recognition deficiencies of managers mean they miss opportunities to change the nature of the situation by recognizing patterns in the behavior of their competitors. We call this managerial deficiency :**"Temporal Pattern Recognition Deficiency"** .

In this paper, it is our intent to explore in depth this weakness, confirm or disconfirm its existence and under what circumstances it arises, to provide better understanding of the phenomena and finally, how to best utilize or circumvent it.

Market Signaling

A market signal is a marketing activity that provides information beyond the mere form of that activity. Market signals reveal levels of the unobservable while market signaling is the activation of market signals. An activity could be a price reduction, a new marketing campaign, or the building of a new plant. The signal is the intent of the firm to pursue an aggressive strategy of market penetration or to enter into another market segment. A marketing signal alerts the competitor to those features of a marketing activity which communicates the acting firm's intentions, motives or commitments (Heil 1988b).

The advantages of signaling are many. A sender can selectively "leak" information to its competitors via the act of signaling. The competitor (receptor) can improve its reaction by better understanding the sender's intentions and the reasoning behind its marketing action. Each of the firms can interpret the other's actions in terms of effects, motives or commitments, and by that improve its own choice of actions. If the sender is credible, the reactions by the receptors will be timely and consistent with the signal sent. The receptor can assess and evaluate these signals easily, accurately, and make a reaction decision faster. Signaling, therefore, allows efficiency and ease of communications between competitors.

The key to recognizing patterns is the *Reputation* of the firm performing the signaling. *Reputation* is defined as the estimation of the consistency over time of an attribute of an entity. Its counterpart, *Credibility* is defined as the believability of an entity's intentions at any particular moment in time. Reputation is an historical notion of past behavior while credibility is a measure of believability at a point in time. A sender's signaling reputation refers to the sending firm's history of repeatedly fulfilling signals. A sending firm that follows up a marketing signal will develop a good signaling reputation. If a firm does not fulfill its signals, it will build no reputation. A firm will lose its signaling reputation completely if it repeatedly fails to fulfill marketing signals; this loss could lead to its inability to signal since its signals will be given no attention by its competitors (Heil 1988b). The relationship between the power a reputation bestows and the fragility of reputation will cause a sender with a good signaling reputation to be reluctant to risk that reputation. Once a reputation has been established, believability follows. But only for simple patterns: always lies or always tells truth are patterns that are easily observable and can quite readily lead to reputation formation. Complex patterns: lie-truth-lie , by their very nature produces indeterminate reputation and are often not recognized nor utilized by the manager.

Signaling is a learning process. A receiver reads the signal, interprets it in the light of past experience, and reacts accordingly.

Hypotheses

Hypothesis 1) A pattern of behavior of one firm will not (in general) be detected and acted upon in such a matter as to optimize competing firm's performances.

Some patterns should be more observable and acted upon then others. Those patterns of cycle 1 (when an entity is totally consistent with his actions every decision period, for example always telling the truth or always telling a lie) should be optimized more readily than those of more lengthy cycles. Definitions of and examples of the pricing cycles and pricing patterns used in the study are found in **Table 1** and **Table 2**, respectively.

Hypothesis 2a) Patterns of cycle 1 should be readily observable and acted upon.

Firms should have higher profits with when their competitors have cycle 1 patterns than those of longer length.

Hypothesis 2b) The longer the cycle of the pattern, the worse the detection abilities.

Simple patterns (for example, indicating high prices while in reality pricing low) should be easily detected and profits optimized from a competitor's recognition of the pattern. Simple patterns differ from categorical patterns in that with a simple pattern the same transaction is consistently utilized (as the example above). In categorical patterns, one can be consistent in a more subtle way. For example, one can always follow through on his signal (lie lie or truth truth) or consistently defect (lie truth or truth lie) yet to the naked eye two options, not one, appear. Complex patterns reflect combinations of simple and categorical signals and should be the poorest profit performer of all.

Hypothesis 3a) Simple patterns should be readily observable.

Hypothesis 3b) Categorical patterns should produce poorer profits and less observable pattern detection behavior than simple patterns.

Hypothesis 3c) Complex patterns should be produce the worse profit levels of all.

Managers do not consciously delve for patterns. However, when they are primed or told to be cautious of patterns, they should investigate and analyze the data more for patterns than otherwise. Hence the following hypothesis appears reasonable:

Hypothesis 4) When primed, managers should be able to recognize patterns and optimize profitability better then when they are not expecting them.

Method

A simulation was utilized to test the various hypotheses. Forty-eight student teams comprising approximately two hundred undergraduate and MBA students from a Midwestern University Graduate School of Business were utilized in the experiment. Students and treatments were arbitrarily assigned to teams. Teams were used to emulate the multiple buying influences found in the industrial decision making process. Approximately sixteen decision periods were held.

The experiment involved airline industry pricing on a single route. The airline industry is a particularly good choice because pricing is highly dynamic in nature (daily or even hourly rate changes can easily be made in response to competitor actions), competitive response can be quick, competition is well defined and have bordered product lines (routes) which are different and distinguishable from other products (preferred for ease of measurement purposes), competitors are well known with usually no more than 3 or 4 competitors on any route with one major competitor (a manageable number to simulate), a history on any one competitor is well established (a known track record), and the outcomes(profits) are typically not perfectly known (uncertainty exists on the profit profiles for each competitor).

Each of the teams were provided a prearranged sequence of treatments. In the first experiment, The teams were randomly divided into four groups which were given different combinations of responses for the first six periods. The teams were then given customized patterns according to the manipulation desired. Balance to the experiment was provided to give all teams equal opportunity to "win"-to garner the highest cumulative profitability. A master game matrix (of treatment versus team for which period) was created before the experiment commenced and adhered to throughout the duration of the experiment. In the second and third experiments, teams were randomly assigned a treatment which differed by cycle (1,2,or 3 decision periods in duration) and type of pattern (simple, categorical, or complex). A simple pattern was defined to be a combination which reoccurred (saying high but going low, saying high and going high, then repeated is a simple two cycle pattern). A categorical pattern relates to truth or lying: saying high and going high, saying low and going low are both defined as categorically truthful. In a categorical two cycle a player could get truth- lie -truth- lie but the truth combination could be high-high or it could be low-low. The key to recognizing a categorical pattern is in identifying the truthfulness or falseness of the signal and its reoccurrence. A complex pattern has combinations of simple and categorical variables. Tables 1 and 2 define the cycle types and pattern types and provide additional examples.

TABLE 1
DEFINITIONS AND EXAMPLES OF PRICING CYCLES USED IN THE STUDY

Pricing Cycle Definition	Decision Periods 1 2 3 4 5 6
Cycle 1:	H/L H/L H/L H/L H/L H/L : Repeats Identically each Decision Period
	e.g. H/L is transaction
Cycle 2:	H/H L/L H/H L/L H/H L/L : Repeats after Two Decision Periods
	e.g. H/H L/L then repeats
Cycle 3:	H/L L/H L/L H/L L/H L/L :Repeats after Three Decision Periods
	e.g. H/L L/H L/L then repeats

H: High Pricing
L: Low Pricing
X/Y: Firm signaled condition X (either H or L) but actually responded Y.

TABLE 2
DEFINITIONS AND EXAMPLES OF PRICING PATTERNS USED IN THE STUDY

Pricing Pattern Definition	Decision Periods 1 2 3 4 5 6
Simple:	H/L H/H H/L H/H H/L H/H: Same Transaction set every Cycle (2)
	e.g. H/L H/H repeating
Categorical:	H/H L/H H/H L/L H/L L/L: Within cycle (3) , truth or lying consistently
	e.g. truth-lie-truth
Complex:	H/L L/H L/H L/H H/L L/H :Combinations of simple and mixed.
	e.g. cycle (2), lie-L/H

H: High Pricing
L: Low Pricing
X/Y: Firm signaled condition X (either H or L) but actually responded Y.

The play of the game proceeded as follows: the playing team made a pricing decision (high or low price) based upon Zeta's previous turn comments (track record) and actions and the payoff matrix. The form was then submitted to the game administrator. The game administrator compared the playing team's decision to the previously specified Zeta treatment for that turn. He filled out a new sheet with the results: previous turn Zeta comments (high, low), previous turn Zeta action (high or low), your firm's decision, profits (dollars based upon the payoff matrix from a comparison of Zeta choice and your firm's decision), and cumulative profits (total sum of profits since beginning of the game). The administrator then provided appropriate comment per the master game matrix and specified treatment for that team and turn .

Results

Results were computed by identifying for each pattern a safety position (the value received for playing low) and an optimum position (the maximum value that could have been received if the pattern had been recognized and the participant was playing for optimum profit level). Teams scores were identified by profits made and by decision made (1=high, 0= low). If a pattern were identified, the teams score and decisions should approximate that of the optimal position. Average profits were computed for each combination and compared for significance. A Chi- square of decisions were also reviewed for significant differences.

For the first hypothesis, to examine whether or not patterns had been detected and the information utilized, a Chi- square of the decision versus the optimum position was computed. No relationship was found. If patterns had been detected, the Chi-square table should be diagonally heavy (1,1 and 0,0) since the decision and the optimum values should nearly match. There were no deviations from that expected and significance approached 1.0. Clearly no pattern optimization activities were being observed. A highly significant result showed (X^2=41.7, p<.001) when the decisions were compared to the safety position. This would tend to suggest risk taking was minimized and for most of the groups, they decided to stay with the certain money (playing low and receiving the sure bet of $50).

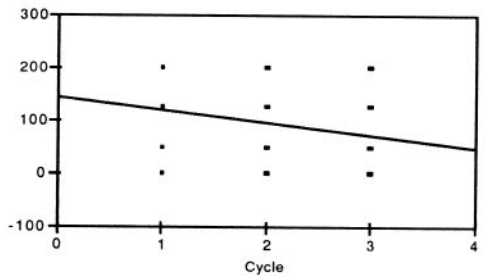
The second hypotheses concerned cycles. Regression analysis and analysis of variance were used with profits being the dependent variable and type of cycles being the independent variable. Figure 1 shows a graph with the defined regression line when profits were regressed on cycle type. As can be seen, there exists a gentle negative but significant slope (with a regression coefficient of -.25). An analysis of variance performed on profits (dependent variable) by cycle type (independent variable) showed F=14.95, p<.001, extremely significant. Table 3 shows the means of each of the cycle factors and the t-scores between the means. The means were clearly descending, the longer the cycles involved with highly significant probabilities between them. Therefore the second hypotheses were clearly confirmed, those patterns of cycle one had the most profitability and hence observability while the longer the cycle, the worse the profitability.

The third set of hypotheses examined type of pattern. Once again regression analysis and analysis of variance were run for profits by pattern type. Figure 2 shows a graph with the defined regression line when profits were regressed on pattern type. The graph shows a similar gentle negative but still significant slope (coefficient of -.20). An analysis of variance performed on type of patterns (independent variable) by profits (dependent variable) gave F=17.63 with p=.001. Table 4 showed the means for each of the pattern types and t scores for differences between them. The simple type had the highest profitability with the complex type providing far worse performances than the other two. Differences were highly significant between the means of each type. Thus the third hypotheses were confirmed, the simpler the pattern the higher the mean level of profitability for firms.

TABLE 3
RESULTS OF T-TEST DIFFERENCES IN AVERAGE PROFIT LEVELS ACROSS THE THREE CYCLE TYPES USED IN THE STUDY

	Mean Value of Profits	Tscore	Significance Level
Cycle 1	118	2.77	.006
Cycle 2	91	3.2	.001
Cycle 3	70		

FIGURE 1:
Cycle Type versus Profits



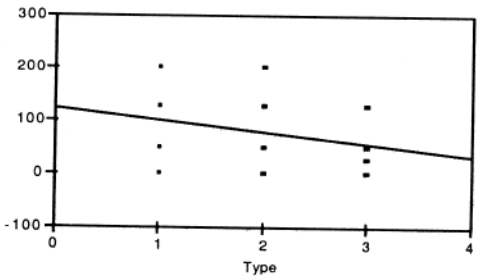
The fourth hypothesis suggested that if managers were primed or were expecting patterns, their optimizing behavior would be better than when they were not expecting patterns. An analysis of variance performed between profits (dependent variable) and whether there was priming or not (independent variable) showed F<1 and a p <.43. A Chi- Square showed no significance. Even when the data was further subdivided according to prime, not primed, or explicitly primed, results indicated the explicitly primed groups showed better performance but not significantly. This was not an expected result. This seemed to indicate that even when the groups were made aware (explicitly by the administrator warning them to beware of predictability in the competitor's habits), they could not make use of that information.

So it not only appears that the subjects not have an ability to detect patterns that occur throughout time but even when they are made aware of that possibility, they do not make use of that information.

TABLE 4
RESULTS OF T-TESTS ON DIFFERENCES in AVERAGE PROFITS
GENERATED BY TYPE OF PATTERN

	Mean Values	T-scores	Significance Levels
Simple	95		
		2	.036
Categorical	80		
		3.8	.000
Complex	54		

FIGURE 2:
Pattern Type versus Profits



Discussion

Participants competing in a simulation of the airline industry appear to have little ability to discern patterns through time. This **Temporal Pattern Recognition Deficiency** affects their competitive performance. Their inability to detect patterns over time in the conduct of business of a competitor provides a competitive disadvantage to their firm. It appears that simple patterns of short time involvement were readily observed. However, when faced with more complicated patterns or extensions of decision period, the pattern recognition abilities of the participants almost ceased to exist. Even when explicitly primed concerned patterns, performance did not show any improvement. That this phenomenon exists should be of concern. It appears that comprehensive *temporal* pattern recognition is not a characteristic trait of individuals. The need for firms to train managers in pattern recognition appears necessary. The marketplace is an arena where signals are extensively used (intentionally or not) to foreshadow intentions. The ability to recognize signal patterns is key to the strategic success of any business.

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A MANAGERIAL DECISION FRAMEWORK FOR VERTICAL INTEGRATION

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Abstract

The degree of vertical integration present in a marketing channel is a fundamental characteristic of that channel's structure, and the critical component in the formulation of a channel member's strategy. Researchers in the past have developed frameworks to analyze the vertical integration decision of the firm. This paper reviews these frameworks in an effort to present a comprehensive view of the factors affecting the vertical integration decision.

Introduction

The channel integration decision is a critical component of a firm's marketing strategy (Stern and El-Ansary 1988). The decision to vertically integrate may be based on a variety of factors such as competitive pressure, management's perceptions on the future of the industry, the firm's susceptibility to cyclical downturns, and opportunities available from market growth. Some decisions to integrate upstream (or downstream) require a firm to acquire capabilities far beyond the basic strengths of its core business. The decision of any channel member to vertically integrate involves substantial commitment of resources, the majority of which may be lost if the decision is reversed. In addition to affecting its vertical relationships, the decision to integrate is bound to affect a firm's competitive position, and as such, may affect the structure of the entire marketing system.

Given the complexity and importance of the vertical integration decision, the factors which affect it have gained significant attention from researchers. Two main streams of research can be readily identified in the work previously done in this area. One, hereafter referred to as the law and economics perspective, has focussed on the transaction cost aspects of the decision. This perspective maintains that managers vertically integrate to overcome contractual cost and other difficulties associated with the traditional market system. The second perspective, the strategic management perspective, claims to have taken a more comprehensive approach to the problem by considering variables such as the Product Life Cycle (PLC) stage, and the strategic objectives of the business. Some of the divergence in the conceptual literature stems from defining the subject as either vertical control, an extremely broad construct, or vertical integration per se, the complete corporate internalization of a separate business entity. Although there is substantial conceptual work in both the perspectives, the empirical evidence presented is conflicting and hence provides, an opportunity for further research in this area.

The objective of this paper is to review different explanations of the factors that influence the firm's vertical integration decision and to combine them within a single framework.

The Decision Framework

Researchers have proposed frameworks to look at the vertical integration decision (e.g., Harrigan 1983a, 1983b; Anderson and Weitz 1986). These frameworks have taken different approaches to the vertical integration issue. While the law and economics approach focuses on the cost aspects of the transaction, the strategic approach incorporates the objectives of the firm and competitive conditions within the industry. Day and Klein (1987) have expressed the need to explore the commmonality between these two approaches such that the factors affecting vertical integration decision can be placed in a unified framework and the relationship between them analyzed. Such a framework could be an initial step towards clarifying, and perhaps resolving the debate in the literature on the appropriate degree of vertical integration (e.g., Stigler 1951, Harrigan 1983, Williamson 1985, Klein, Frazier and Roth 1990). Moreover, the advantage of such a framework is that it could allow managers to combine a set of insightful but often partial analyses to better address the multidimensional and complex vertical integration decision.

The following discussion attempts to integrate the perspectives through a review of the variables found within each approach to the vertical integration decision. The literature on the two perspectives suggests three broad groups of variables that influence the vertical integration decision: strategic variables, environmental variables, and transaction specific variables (Hill, Hwang and Kim 1990). Propositions (summarized in the table), have been developed to indicate the potential impact of the variables on the vertical integration decision.

Strategic Variables

Corporate objectives. Porter (1980) has recommended two corporate strategy objectives for an organization--leadership and focus. In reconciling business unit goals with corporate objectives, competitive thrusts involving leadership positions (either cost or technological leadership), are better suited to higher degrees of vertical integration than are business units pursuing a generic focus strategy (Harrigan 1983b). Firms pursuing a leadership objective seek either market share leadership (usually achieved through lower cost), or technological leadership (through high product differentiation and continuing innovation). The leadership objective is best controlled through the type of meticulous attention to inputs and distribution (as well as production) that an integrated posture provides. Therefore, a high level of vertical integration would be appropriate if the firm wants to achieve leadership, even though such an integration will in general involve more risk. Thus:

P_{1a}: Pursuit of a leadership objective will positively affect the vertical integration

decision.

On the other hand, a focus strategy involves selecting high unit margin market niche(s). Such firms are typically more interested in "milking" their innovation before they move on to a new product(s). Under this objective, a low or no vertical integration is more suitable because high investment in vertical integration cannot be justified. Thus:

P_{1b}: Pursuit of a focus objective will negatively affect the vertical integration decision.

Relative bargaining power. Buyers (sellers) have high relative bargaining power when there are a large number of sellers (buyers). Under such conditions, if there are tasks firms cannot perform internally, they can require outsiders to perform these tasks for them at lower cost without vertical integration. The most important determinants of bargaining power are: the existence of alternative outlets or sources of supply, the ability to self manufacture, and the dependency relationship between the supplier (or distributor) and the business unit (Harrigan 1983). One of the variables considered by Anderson and Weitz (1986), "competition in the supplier market," also relates to the concept of bargaining power. The presence of many suppliers (or distributors) will allow the firm to manipulate them better by playing one against the other. Hence the firm will achieve a significant degree of control over its channel members without taking the risks associated with vertical integration. Harrigan (1983a, 1985, 1986) has shown that bargaining power is negatively associated with the degree of vertical integration. Thus:

P_2: The presence of a high relative bargaining power over the suppliers (distributors) will negatively affect the vertical integration decision.

Relative degree of vertical integration.

Macmillan, Hambrick and Day (1982) investigated the relationship between strategic attributes of the firm and its profit performance. Results indicate that degree of relative vertical integration is negatively related to performance for the firms in every cell of the BCG matrix. This would suggest that, irrespective of the development phase of the industry, being more vertically integrated than your competitors would be a drawback. Hence an important factor to consider in the vertical integration decision would be the level of integration of other firms in the same industry. Thus:

P_3: A firm's vertical integration decision will be positively affected by the relative degree of vertical integration of its competitors.

Transaction Specific Variables

The importance of transaction costs for a firm's vertical integration decision has been discussed extensively in the literature (Williamson 1975, 1979, 1981a). A transaction occurs when a good or a service is transferred across a technologically separable interface (Teece 1984). No two parties can transact with each other without there being a cost associated with the transaction. An apt analogy would be a mechanical gear system in a machine. When power is transferred from one gear to another, some loss of energy due to friction is inevitable. Similarly, when two parties transact with each other, there is definitely a cost associated with writing a contract. In other words, the economic counterpart of friction is transaction cost (Williamson 1985). In a complex and uncertain world populated by economic actors of bounded rationality and opportunistic tendencies, the costs of drafting, negotiating, monitoring and enforcing contracts are non-trivial, and as such, play an important role in the vertical integration decision (ibid.).

THE DECISION FRAMEWORK

	Variables	Impact
	Strategic:	
	Corporate objectives	
P_{1a}	Leadership	+
P_{1b}	Focus	-
P_2	Relative bargaining power	-
P_3	Relative degree of vertical integration	+
	Transaction Specific:	
P_4	Asset specificity	+
P_5	Frequency	+
P_6	Internal uncertainty	+
	Environmental:	
P_7	Technological uncertainty	-
P_8	Diversity of industry structure	-
P_9	Life cycle phase	
	Embryonic	-
	Growth	+
	Maturity	+
	Decline	-

Williamson (1979) has identified three critical dimensions for describing transactions within a contractual setting as, asset specificity, the frequency with which transactions recur, and uncertainty surrounding the transaction. He differentiates between internal and external uncertainty, the former which is of interest here.

Asset specificity. Asset specificity concerns the nature of the items transacted, being either the physical assets, particular locations, or skilled personnel, such that both parties achieve maximum benefits from the transaction. An example of a physical transaction specific asset is a stamping machine to make labels to the specification of one manufacturer (Klein, Crawford and Alchian 1972). In exchanges involving highly specific assets, buyers and sellers are "locked"

in an agreement where the commodity exchanged has substantially less value to any third party. Conversely, transactions involving low asset specificity can be carried out more efficiently by the market system. Transaction cost theory suggests that, when the transaction specific assets are likely to become valuable, firms are better of by either integrating the function (exerting maximum control), or by redesigning the tasks so that general purpose assets will suffice. Thus:

P_4: The presence of transaction specific assets will positively affect the vertical integration decision.

Frequency of the transaction. Since vertical integration involves commitment of valuable resources it makes little sense to vertically integrate if the transactions under consideration are going to occur only one time or infrequently. Thus:

P_5: The frequency of the transaction will positively affect the vertical integration decision.

Several studies have found support for the positive impact of asset specificity and frequency dimensions on the vertical integration decision (Anderson 1985, Anderson and Coughlan 1987, John and Weitz 1988).

Internal uncertainty. Internal uncertainty exists when the firm cannot accurately assess the agent's performance by objective and readily acceptable criteria. This occurs when outputs cannot be quantified easily, and/or direct relationship between the inputs and the outputs is difficult to establish. A well known example is given by Alchian and Demsetz (1972, p.779). As they put it, "two men jointly lift cargo into trucks; solely by observing the total weight per day, it is impossible to determine each person's marginal productivity." Difficulties in assessing performance also arise when responsibilities are shared, which is frequently accompanied by high coordination needs. For example, when team selling is used, it is difficult to ascertain the contribution of each individual to the sale. In short, the effectiveness of independent agents decreases because it cannot be determined how well the activities are being performed (Anderson and Weitz 1986). Vertical integration offers a partial solution to this problem, because in such situations firms can monitor inputs rather than evaluate outputs. According to Williamson (1981a), internal uncertainty arising from difficulties experienced in performance evaluation makes control more desirable regardless of the level of asset specificity involved. Thus:

P_6: Internal uncertainty due to difficulties in assessing performance will positively affect the vertical integration decision.

Environmental Variables

The effect of environmental uncertainty on the vertical integration decision has received considerable attention from proponents of both the law and economics, and strategic management perspectives. Proponents of the transaction cost analysis have argued that, under uncertain environmental conditions, its very difficult to write comprehensive contracts which will prevent opportunism, given that these parties possess bounded rationality in the presence of external uncertainty (Williamson 1975). Internalization of the activities is seen to allow the absorption of uncertainty through specialization of decision making, savings in communication expenses and most importantly, higher control over the channel members.

Proponents of the strategic perspective, however, seem to take an opposing view. Lawrence and Lorsch (1967) in their discussion of "viable organization," argue that integration solely on the basis of transaction costs will make the organizations so large that they will become "inviable." In a highly uncertain external environment, integrated organizations tend to get somewhat insulated, and hence are slow to react. Thus, Lawrence and Lorsch (1967) recommend looser structures under uncertain environmental conditions. Harrigan (1983a) concurs with this view and points out the risks associated with vertical integration under uncertain environmental conditions. The disagreement between the two perspectives may be attributable to the multidimensional nature of the uncertainty construct (Klein, Frazier and Roth 1990). The literature on both the perspectives suggests the following environmental variables which have an impact on the vertical integration decision of the firm.

Technological uncertainty. When an industry is characterized by fast changing technology, firms will be less willing to commit themselves by vertically integrating. Two empirical studies provide support for this notion (Walker and Weber 1984, Balkrishnan and Wernerfelt 1986). These studies have shown that the possibility of technological obsolescence makes vertical integration less desirable. Thus:

P_7: The presence of rapidly changing technological environment will have a negative influence on the vertical integration decision.

Diversity of industry structure. Diversity refers to the degree of heterogeneity in the industry structure. A highly heterogeneous industry structure is marked by many customers, many final users, and many competitors for the firm's product(s), with a high dissimilarity among them (Klein, Frazier, and Roth 1990). A firm operating in a diverse environment must adopt multiple strategies to combat the competition as well as to satisfy varied customer demand. With the kind of inflexibility which follows with a decision to vertically integrate, a firm will be hard pressed to deal with the conflicting demands placed on it by the diverse industry structure. The "industry volatility" construct defined by Harrigan (1983), though broader in scope, incorporates the idea of structural diversity. She has shown that a high degree of "industry volatility" is associated with lower degrees of vertical integration. Klein, Frazier and Roth (1990) also found support for a negative relationship between diversity of industry structure and the degree of vertical integration in international channels. Thus:

P_8: The presence of a diverse industry structure will negatively affect the vertical integration decision.

Life cycle phase. Stigler (1951) advanced a vertical integration theory in which life cycle features are prominent. His argument states that the rewards for vertical integration would be the strongest for the firms in young, emerging industries. These firms require new mixes of materials as inputs and new channels of distribution for their functioning. They cannot depend upon independent firms to provide them the necessary functions, because such firms simply may not exist. In fact, the absence of an established infrastructure is a phenomenon typically observed in the new or emergent industries. As the industry grows and matures these functions can be turned over to the specialists, who because of substantial volume, would be able to perform these functions more efficiently. Thus, as the industry matures the firms will continue to disintegrate and turn more functions to the specialist, until the industry enters the decline stage. During this stage, channel intermediaries will begin to lose money and leave the industry, and their functions will have to be retaken by the firm. This theory was originally confirmed in the textile industry (Stigler 1951), and later by Tucker and Wilder (1977) across several U.S. manufacturing sectors.

Harrigan (1983a), however, has advanced a conflicting argument. She argues that high vertical integration in the introduction stage will lead to an under-utilization of capacity because of low sales volume, and is too risky due to uncertain demand conditions. As sales start growing (growth stage), more competitors enter the industry and the industry structure changes from one of a trading relationship to one of greater customer satisfaction and lower production cost. Therefore, high vertical integration in the growth and maturity phases is feasible due to the economies of scale that can be achieved. Finally, as the industry sales start declining, prudent firms would start divesting by disintegrating most of their functions and turning them over to the outsiders. Her hypothesis regarding the relationship between life cycle phase and degree of vertical integration has received strong support (Harrigan 1983a, 1985a, 1985b, 1986). She claims that the Tucker and Wilder (1977) study verifying Stigler's theory is flawed because it uses a highly aggregate industry level sample; and different results will emerge if the unit of analysis is changed to the SBU level (Harrigan 1986). However, she does acknowledge that Stigler's argument may be valid in lesser developed countries which are marked by less developed infrastructure (Harrigan 1983). Indeed, the current stage of development of infrastructure in many LDC's resembles that in the U.S just after the World War II; the period when Stigler (1951) advanced his theory. In developed economies like the U.S., early integration may help reduce customer uncertainties regarding new products, but in most cases specialized suppliers or distributors are better suited to do these things on a contractual basis for the firm until uncertainties concerning demand and viability are reduced in the growth and maturity stages (Harrigan 1983a). Thus:

P_9: Firms operating in growing or mature industries will be more inclined to vertically integrate than those operating in embryonic or declining industries.

Conclusions

The above propositions have been stated as though they were independent of each other or ceteris paribus. In practice, however, it is important to consider the interaction between strategic, transaction specific, and environmental variables. An important point to note is that different variables are likely to pull the decision maker(s) in different directions. For instance, firms utilizing highly specialized assets would have a preference for a higher degree of vertical integration (Proposition 4). The firm might be operating in an industry with rapidly changing technologies, however, increasing the risk of technological obsolescence (Proposition 7), thus making vertical integration less attractive.

In theory, this situation can be resolved by comparing the expected loss that might arise due to fast changing technology against the savings in transaction cost due to opportunistic behavior of the agents. If the transaction cost savings are greater than the anticipated loss due to technological change, the firm will choose to vertically integrate. If they are not, the firm will not choose to integrate. The key is to make the decision considering all the relevant variables so as to optimize the long term value of the firm. In practice, "optimization" is extremely difficult given the complexity that characterizes the real world, the uncertainty that exists as to future state of the nature, and the bounded rationality of the decision makers (Hill, Hwang and Kim 1990). Hence the importance of considering the relative weights of the relevant variables cannot be overestimated. This raises the question of whether any meaningful generalizations can be made about the relative weights of different variables. Following Chandler's (1962) normative perspective that structure follows strategy, it is quite reasonable to expect that the corporate objectives should take precedence over all the other variables. However, it must be noted that this perspective is strictly normative, and in reality the firm may be constrained by practical considerations such as, availability of resources, an opportunity (or lack of it) to take over the functions normally performed by the channel members.

The framework presented here is not without its limitations. Most of the time, the options available to the firm are not binary, that is, integrate or do not integrate. Harrigan (1983a) and later work in the transaction cost approach (Williamson 1985) recognizes that vertical integration can vary in stages, breadth, degree, and form. The framework does not consider these intermediate options.

Future research is needed on the relationship of environmental uncertainty to the vertical integration decision, as it may reconcile the conflicting perspectives discussed in this paper. A majority of the empirical work done on these relationships has dealt with vertical integration in a post-hoc fashion. More work is needed which examines the process by which managers approach

the vertical integration decision itself. Such research may provide insight into the priorities that are given to the environmental and strategic factors in upcoming decisions, where current descrepancies between approaches exist.

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MARKETING EFFECTIVENESS INDEX (MEI) - TOOL FOR STRATEGIC MARKETING PLANNING

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ABSTRACT

This paper offers a new approach for measuring company's marketing effectiveness and in this way enabling the organisation to embark more effectively on its strategic marketing planning. The article presents an index-MEI (or Marketing Effectiveness Index) that could be also useful in identifying the strengths and weaknesses of the marketing division and could facilitate the comparison of company's marketing effectiveness vis-a-vis competitors and/or the relevant industry or sector.

Introduction

Faced with the need to control budgets, corporate and marketing managers are scrutinising marketing expenditures more closely. Marketing is an easy target for budget cuts, since it is difficult to measure its effectiveness. As customers are placing increased emphasis on service and quality, it is increasingly necessary for organisations to be sure that their marketing programmes are effective.

Although marketing effectiveness is extremely important for companies' marketing planning, relatively very few publications are available on this under-studied subject area.
The objective of this paper is to put forward a novel approach to measuring marketing effectiveness, in which the overriding factor is its degree of applicability, and as such could be used as a tool for strategic marketing planning.

Literature Review

Marketing effectiveness is a complex subject. As far as its measurement is concerned, it remains one of the most under-studied area in the field of marketing. Little information is available from the existent body of marketing literature.

Greenley (1987) focused on some of the major approaches to defining effectiveness which involved:

1. Analysis of the end results, which is impaired by the difficulty of determining the cause of the results and whether planning had any effect on the outcome.

2. The multidimensional approach, which involves examining the attributes of the planning system itself, and

3. The assumption approach, which holds that planning is of benefit merely because it is used. However, all of the approaches are problematic, and none are considered to be totally satisfactory.

In the article "From sales obsession to marketing effectiveness", Philip Kotler (1988) had suggested a method for auditing marketing effectiveness. He presented the questions that should be asked in auditing the marketing effectiveness in a combination of five principal activities. They were, customer philosophy, integrated marketing organisation, adequate marketing information, strategic orientation and operational efficiency. The questions would be scored and the final score would determine the company's marketing effectiveness. In his method, Kotler avoided the use of any quantitative measures such as profitability, market share, growth etc. He argued that the use of these measures would undermine the true performance of the marketing division.

An attempt to study the relationships between the marketing mix variables of a company, taking into consideration the macroeconomic setting in which that company operates has been made by Brissimis and Kioulafas (1987).

An approach to evaluate the relative effectiveness of various decision aids in marketing practice has been proposed by Wensley (1989). Breaking the decision-making process into three stages (identifying options, forecasting outcomes and evaluating outcomes) and classifying marketing problems as operational decisions or investment decisions, could - according to Wemsley - assist marketers.

Since marketing executives track market share, sales volume, and profit contribution margins, a decline in these areas can cause desperate short-term activity. Such short-term actions include:

1. Raising or lowering prices suddenly and 2. increasing advertising or sales activity, loyalty and good financial performance. Band (1988) advanced the view that three core sources of long-term competitive advantage, which lead to the creation of loyal customers, are: 1. Customer responsiveness, 2. Fast-paced innovations and 3. Flexibility.

Howard et al. (1988) conducted a study to demonstrate the design and application of the ABC measure (consumer's attitudes, brand recognition and confidence) by analysing the experience of managed cash accounts at four financial institutions. The ABC measure was developed to replace market share in the measurement of marketing effectiveness.

Gatignon and Hanssens (1987) introduced a general class of marketing interaction models distinguishing between market response functions and marketing parameter functions. They have argued that these models can be estimated by standard generalised least squares procedures on pooled time-series and cross-section data.
Finally, Hagborg and Mitchell (1987) have attempted to look at each input in the marketing mix and measure it in terms of the amount of budget it consumes.

TABLE 1
OVERVIEW OF RELEVANT STUDIES ON MARKETING EFFECTIVENESS AS COMPARED TO THE MEI

Dimensions / Authors(s)	Measurement of end-results	Multimensional audit approach	Quantitive Measures	Use of Macroconomic variables
Greenley 1987	yes	yes	no	no
Brissimis & Kioulafas 1987	yes	no	yes	yes
Gatignon & Hanssens 1987	yes	yes	yes	no
Hagborg & Mitchell 1987	yes	yes	yes	no
Kotler 1988	yes	yes	no	yes
Band 1988	yes	no	no	no
Howard et al 1988	yes	no	no	no
Wensley 1987	yes	no	yes	no
MEI	yes	yes	yes	no

Table 1 summarises the assessment of some of the most important studies on marketing effectiveness as compared with the development of the present marketing effectiveness index (MEI) in terms of the following critical dimensions: measurement of end - results, the use of a dimensional/audit approach, the use of quantitive measures and the inclusion of macroeconomic variables within the overall assessment.

As noted above, the measurement and identification of the cause of end-results is the dominant element performed by all the approaches. Focusing on the MEI, it can be seen that this strategic tool complies with the three most important dimensions of analysis, with the exception of not including the assessment of macroeconomic variables. In fact, the vast majority of these approaches also do not include this particular measurement. Only Kotler (1988) makes the evaluation of variables related to the macroenvironment in his audit approach as well as Brissimis and Kioulafas (1987) who have included variables, such as the assessment of the retail environment and the set up cost of a new retail store when evaluating the specific impact of advertising and distribution on sales.

Unfortunately, despite the importance of assessing the effectiveness of all the marketing variables taken together, so far there are no indexes or model(s) that could be used to handle this aspect of marketing planning. In this paper we attempt to deal with this important issue that faces virtually every marketing and corporate manager, particularly at the strategic planning level.

Measuring Marketing Effectiveness

The objective of this paper is to study the constructs involved in the possible development of an index or an equation using both quantitive and qualitative measures as indicators of marketing effectiveness. By calculating the summated value of these indicators, a figure which will represent the level of marketing effectiveness could be derived. Therefore, first of all, it is necessary to determine what indicators should or could be used. Then, investigate the importance of each indicator and giving each of these the corresponding weight. Figure 1, below suggests a systematic approach to develop this marketing effectiveness Index (MEI).
Criteria that were found to be essential in measuring marketing effectiveness are listed in Table 2. It contains 10 variables (both quantitive and descriptive) identified from the literature review. The analysis of the existing literature has suggested several other relevant factors which could also be important indicators of effectiveness (such as customer satisfaction, innovativeness and flexibility) and therefore could have been included in the equation, as additional key constructs of the markekting effectiveness index (MEI). These other variables were not included in the analysis for the following reasons: i) it was found reasonable to limit the number of constructs to be included in the equation to ten variables; ii) the accurate measurement of some of these aditional constructs was found to be more complex; and iii) the difficultly of interpretation by marketing managers and the level of subjectivity attached to these factors was found to be high. Neverthelesss,

it is the intention of the authors to add some of these constructs into the MEI equation for analysis in a subsequent stage of research.

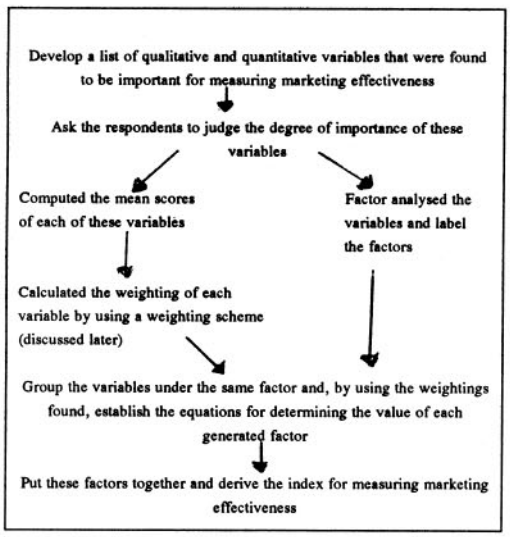
Several of the measures (image, brand reputation and promotion effectiveness) are determined by consumers. This fact may represent a significant problem since it is likely that managers have biased judgements about their company's image, reputation and promotion effectivess. It is the authors' intention to incorporate a combined rating score derived from consumer input in the further refinement stage of the MEI.

Table 2 contains 10 variables identified from the literature review which include both quantitive and qualitative measures. The degree of importance of these variables were judged by the respondents on a 7 point itemised rating scale (i.e. "1" - the least important to "7" - extremely important), as explained in the methodology (see below).

TABLE 2
LISTS OF ATTRIBUTES THAT ARE IMPORTANT IN MEASURING MARKETING EFFECTIVENESS.

Profitability
Sales volume growth
Market share growth
Marketing investment intensity
Return on capital
Company image
Brand reputation
Distribution effectiveness
Promotional effectiveness
Quality of marketing managerial personnel

FIGURE 1
PROCEDURAL STEPS FOR DEVELOPING THE INDEX OF MARKETING EFFECTIVENESS



The qualitative measures (attributes) referred to: company's image, brand reputation, distribution effectiveness, promotional effectiveness and the quality of marketing managerial personnel. These measured the qualitative aspects of a company's marketing effectiveness. In order to convert these qualitative measures into quantitative ones, users were suggested to use a 10-point-scaled itemized rating scale (i.e. with "1" representing the least satisfactory performance to "10" - the most satisfactory performance), to judge the corresponding performance of each variable. Then the scores obtained, which reflected their respective performance level within the same period of time, were divided by 10 and a ratio which represented their corresponding quantitative values was derived.

The Quantitative attributes referred to the measurement of sales volume growth, market share growth, marketing investment intensity, profitability and return on capital. These were defined as follows:

Sales Volume growth was measured by the percentage rate of growth of total sales revenue experienced by a company in a given time period.

$$\text{i.e. Sales Volume Growth} = \frac{\text{Sales t1 - Sales t0}}{\text{Sales t0}}$$

t0 = period O
t1 = period 1

Market share growth was measured by the ratio of total sales of a business to the total sales by all competitors, including the company itself, in the same market during a given time period.

Market Investment intensity was measured by the ratio of a company's total investment in marketing to sales.

Return on Capital was measured by the ratio of the profit before interest and tax to the total assets value of the company.

Finally, it was the measure of **profitability**. In order to isolate the responsiveness of profit to marketing effort and recognise the fact that there was time lag between the implementation of marketing activities and the realisation of their effectiveness, a different version of profitability was used. It was measured by the ratio of "net marketing earnings" to sales within a given time period.

$$\text{i.e. Profitability} = \frac{\text{Net marketing earnings}}{\text{Sales}}$$

The value of Net Marketing Earnings was obtained from a new version of Profit and Loss statement (based on Feder, R A 1965). In order to produce a profit and loss statement which was meaningful for measuring marketing effectiveness, the items in the traditional p/l statement were reorganised so that all the items which had marketing significance and produce gross revenue, were differentiated from those which do not. In other words, the responsiveness of profits to the changes in the level of marketing expenditure, e.g. advertising and sales promotion, would be reflected in the figure of net marketing earnings.

Methodology

Data on the importance of each of the 10 criteria (presented on table 1) was collected from a random sample of 200 British firms. The sampling frame was the "Key British Enterprise - Top 25,000 Companies". The sample consisted of firms from the food, drink, clothing, shoe, textiles and plastic consumer good manufacturing sectors and the questionnaires were addressed to the marketing or managing directors of these companies. The respondents were asked to indicate the importance of each of the criteria for measuring/assessing the effectiveness of marketing operations in their own companies.

The data collection method had two objectives. Firstly, only consumer goods manufacturing companies were chosen so that the variation existing within the sample was minimised and validity of the use of the proposed equation index was also increased. Secondly, the data was supplied only by the top management so that to make sure that the answers were considered from the strategic level point of view.

Despite running the usual statistical commands of cross tabulation, frequency distribution and descriptives to organise the data, the core analysis was done by factor analysis.

Factor analysis is one of the most commonly used "analysis of interdependence" techniques. In this study, the factor analysis (table 3) was employed in order to reduce the number of variables into a smaller manageable set of factors. The reason for employing Factor Analysis was to obtain a small, manageable number of factors, so that a 'simpler' model and equation (of marketing effectivess) could be deployed. The Varimax Rotation Scheme was selected to carry out the factor analysis because its interpretation is easy. Varimax rotation searches for a set of factor loadings (close to zero, to -1 or +1), and these loadings indicate clear association(s) (or disassociation) according to their values. The resultant factors became subsequently the variables of the equation for measuring the marketing effectiveness. As a result, marketing effectiveness could be expressed as a function of these resultant factors (see Study Results).

The mean scores of these ten marketing effectiveness attributes, which indicate their average importance were also identified (Table 4). These mean scores were used to derive the weightings of the 10 variables so that values of the four factors generated could be calculated and the final value of the level of marketing effectiveness could be determined.

A total of 53 completed questionnaires have been obtained and the study results are presented below.

Study Results

The 10 variables listed in Table 2 were factor analysed and 4 factors which represent the indicators of marketing effectiveness, were obtained. These factors were intepreted based on factor loadings greater than 0.61. The emerging four-factors explained 70.2% of the variation of the data. The result of analysis is presented in Table 3.

TABLE 3
RESULTS OF THE FACTOR ANALYSIS ON THOSE ATTRIBUTES THAT ARE IMPORTANT FOR MEASURING MARKETING EFFECTIVENESS

Variables that are important for measuring marketing effectiveness	Factor A Marketing mix performance	Factor B Marketing cost and investment	Factor C Sales performance	Factor D Profit-performance
Distribution effectiveness	0.82679			
Brand reputation	0.74380			
Promotional effectiveness	0.74136			
Company image	0.68466			
Marketing investment intensity	0.88937			
Quality of marketing managerial personnel		0.72860		
Sales volume growth			0.85878	
Market share growth			0.76201	
Profitability				0.85969
Return on capital				0.60922
Eigenvalue	3.39926	1.38674	1.18483	1.04824
Percentage of Variance	34	13.9	11.8	10.5
Cummulative percentage of Variance	34	47.9	59.7	70.2

Factor 1 was interpreted as the **"Marketing mix performance"**. Its value was determined by four separate variables. They were: the level of company image, brand reputation, distribution effectiveness and promotional effectiveness.

Factor 2 was interpreted as the **"Company's marketing cost and investment"**. It included the measures of a company's ratio of total marketing investment to sales and the quality of marketing managerial personnel.

Factor 3 was interpreted as a company's **"Sales performance"**. Its value was determined by two variables. These were the measures of growth in sales volume and market share.
Finally, **Factor 4** was labelled as the **"Profit performance"**. This factor reveals the effects that a company's marketing activities could have on its financial statements. This was measured by two variables: profitability and return on capital.

FIGURE 2
THE PROPOSED EQUATION FOR MEASURING MARKETING EFFECTIVENESS

Marketing Effectiveness (ME) = f (Factor A, Factor B, Factor C, Factor D...)

Value of Factor A = a1W1 + a2W2 + a3W3 + ... + aiWi
Value of Factor B = b1W1 + b2W2 + b3W3 + ... + biWi
Value of Factor C = c1W1 + c2W2 + c3W3 + ... + ciWi
Value of Factor D = d1W1 + d2W2 + d3W3 + ... + diWi

Factor A, B, C, D, ... :quantitative or qualitative factors that marketing effectiveness depended on.

ai, bi, ci, di, ... : quantitative or qualitative variables that are important indicators of marketing effectiveness.

Wai, Wbi, Wci, Wdi ...: weightings of the variables ai, bi, ci, di

TABLE 4
MEAN SCORES OF THE 10 MARKETING EFFECTIVENESS ATTRIBUTES

Factor 1: Marketing mix performance	
Variables	**Mean Score**
a1: Company image	5.53
a2: Brand reputation	5.73
a3: Distribution effectiveness	5.44
a4: Promotional effectiveness	5.18
Factor 2: Marketing cost and investment	
Variables	**Mean Score**
b1: Marketing investment intensity	5.02
b2: Quality of marketing managerial personnel	5.53
Factor 3: Sales performance	
Variable	**Mean Score**
c1: Sales volume growth	5.24
c2: Market share growth	5.51
Factor 4: Profit performance	
Variables	**Mean Score**
d1: Profitability	6.67
d2: Return on capital	6.07

In order to determine the value of these factors, the weighted sum of these underlying variables were calculated. The weightings of each variable were obtained by calculating the ratio of the mean score of each variable to the total sum of the mean scores of all 10 variables.

e.g. weightings
of variable

$$= \frac{a1}{a1 + a2 + a3 + b1 + b2 + ... + d3 + d4}$$

This weighting scheme was used because:-

(i) it considered the relative importance that the actual users would assign to effectiveness attributes and,

(ii) it made the sum of weightings equal to 1.

On the other hand, the variables' value were calculated in ratio form. In this way, the problem of having a mix of different units of measurements, was solved (see example below).
From the above mentioned results, we could derive an equation of marketing effectiveness as function of Marketing mix performance, Marketing cost and investment, Sales performance, and Profit performance).

Having identified the mean scores of each of these variables, the weightings were then calculated using the relevant weighting scheme. As a result, an equation for determining the factors' value was formulated as follows:

Marketing mix performance = 0.0984 (Company image) + 0.1019 (Brand reputation) + 0.0968 (Distribution effectiveness) + 0.0921 (Promotional effectiveness).

Marketing cost and investment = 0.0893 (Marketing investment intensity) + 0.0984 (Quality of marketing managerial personnel).

Sales performance = 0.0932 (Sales volume growth) + 0.0984 (Market share growth)

Profit performance = 0.1186 (Profitability) + 0.1080 (Return on capital)

Obviously, each industry or sector are likely to have different average values of marketing effectiveness. Therefore, a similar measure of marketing effectiveness, which reflected the average performance in the relevant industry sector should be done before the calculated value of marketing effectiveness (ME) of a company is meaningful. From this, a standardised performance scale could be established which would indicate the company's relative level of marketing effectiveness.

e.g. GRADE Inferior Poor Average Good Superior
.....X.....X....

VALUE	Industry's average value of ME	company's value of ME

In this way various companies' marketing effectiveness (ME) scores could be plotted on the same scale. This could enable a firm to compare its marketing effectiveness not just vis - a - vis the industry or sector average, but also in relation its competitor(s).

CONCLUSIONS

To measure the marketing effectiveness of a company, first of all, the values of all the 10 qualitative and quantitative variables should be determined. Then, the values of the four factors are found by the equations derived. Finally, the value of a company's marketing effectiveness is obtained by the summation of the values of these 4 (or more) factors.

In a similar way, the industry's average value of marketing effectiveness can also be found. These two values of ME should be compared and the relative level of marketing effectiveness of a company can therefore be obtained.

(A) Calculate the company's value of marketing effectiveness

(B) Calculate the industry's average value of marketing effectiveness.

↓

(C) Compare the values so that the relative level of a company's marketing effectiveness is found

↓

(D) Compare the individual value of each variable of the company with the industry's average value

↓

(E) Take steps to improve if necessary

The contribution of this paper is therefore in suggesting a way for measuring company's marketing effectiveness and in this way enabling the organisation to embark more effectively on its strategic marketing planning.

The present study is to a certain extent a preliminary one. Obviously, 53 responses hardly represents a useful sample to generalize from. Moreover the stability of factor loading with only a limited sample size is questionable. To increase the validity and generalisation of use of the proposed ME equation, a survey of a larger sample of companies to include a larger diversity of industries, should be carried out.

The present study is, of course, restricted by the scale of the survey. Also the results of the study are constrained as the small sample of respondents were all British consumer goods manufacturing companies. As a result, this particular ME equation cannot be generalised for use in other countries or industry sectors (such as service industries, industrial goods, etc,) without proper re-assessment and evaluation of the weights.

The measures of marketing effectiveness, although comprehensive, could never be definite. There will always be some company specific factors that are better indicators of a firm's own marketing effectiveness than any other generalised indicators. Factors that might only relate to one particular company may not relate to others. Moreover, rapidly changing marketing environments might from time to time generate some new indicators of marketing effectiveness.

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DEFINING QUALITY: A CONTINGENCY PERSPECTIVE

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Abstract

Whilst quality is an issue that has become dominant in the strategies and operation of many organizations, the response of marketing academics has been relatively muted. It is possible to view the definitional problems and issues surrounding the concept of quality as a significant barrier to further conceptualization and empirical study. In the organizational context this may be one cause of the inter-functional co-ordination problems and conflict that are often associated with the operation of quality management. In an attempt to address these issues a basic contingency model is presented and the implications for the role of marketing in the management of quality discussed.

The recent literature in the management disciplines in the US and Europe has exhibited widespread agreement concerning the importance of the quality of product and service offerings in the strategies and operation of organizations (e.g. Ross and Shetty 1985, Luchs 1986, Jacobson and Aaker 1987). Many observers have suggested that the growing importance of the quality issue has been driven by changing marketplace needs and expectations (particularly in the context of competitive foreign products and services) in conjunction with the introduction of flexible manufacturing practices and Just-In-Time systems (Leonard and Sasser 1982, Friesecke 1983, Feigenbaum 1983, O'Neal 1989). This phenomenon has been reflected in the organizational context through the development and implementation of explicit quality programs and strategies. This has commonly led to the introduction of formalized quality management functions with both line and staff roles in many organizations.

The quality issue now dominates the boardroom and senior management agenda in organizations of all kinds in the majority of marketplaces. This has been reflected to some degree in the strategic management and marketing literatures in the past decade. In these literatures there are three conceptual developments that have received relatively widespread support: (i) quality is a relative concept and has come to be viewed as particularly important in terms of customer perceptions (Takeuchi and Quelch 1983, Holbrook and Corfman 1985, Sheehy 1988); (ii) in conceptual terms perceived quality has been viewed as the difference between customer expectations and customer perceptions of outcomes (Gronroos 1984, Lewis and Booms 1983, Berry et al 1985); (iii) perceived quality is a multi-dimensional construct (Gronroos 1984, Garvin 1988, Parasuraman et al 1988).

Further, challenges to 'economic cost of quality' models and the classical economics perspective (e.g. Crosby 1979, Deming 1982, Feigenbaum 1983, Plunkett and Dale 1988) have had the effect of 'liberating' quality as a strategic variable (Curry and Riesz 1988). Researchers, particularly those utilizing the PIMS database, have also suggested that relative perceived product/ service quality can have a considerable effect upon market performance in terms of market share, profit and ROI (e.g. Buzzell and Wiersema 1981, Phillips et al 1983, Curry 1985). These findings have further highlighted the strategic importance of quality.

However, in spite of the widely acknowledged importance of product/service quality in the strategies, operations and performance of organizations, the burgeoning technical literature in the quality management field, and the attention drawn to the quality issue through media such as the Baldridge Awards, the marketing literature has yet to seriously consider the role of marketing in quality strategy and management in the organizational context (Phillips et al 1983, Morgan and Piercy 1991a). This situation is reflected in the attitudes of marketing practitioners, many of whom see quality as a technical manufacturing/operations issue (e.g. Cravens et al 1988) and also in the service sector where Schmalensee (1991) observes: "To my chagrin as a services marketer, and Baldridge Award senior examiner, I found that marketers had no real conception of quality improvement or the importance of their role in it."

This situation is particularly noteworthy in the context of the underlying congruence between marketing and Total Quality Management concepts in terms of goals and agreement upon the fundamental importance of market orientation upon business performance (Kohoutek 1988, Morgan and Piercy 1991b).

The Definition Issue

Many writers have highlighted the need for the definitional issues associated with quality to be addressed. The quality 'gurus' have suggested that operationally managers have problems associated with quality definitions and pointed to the need for 'some wise and perceptive sentence like: 'Quality is ballet, not hockey' (Crosby 1979). One of the most obvious problems with the definitional issue are the number of different, and often conflictual, definitions of quality that exist in both the managerial and academic literatures (Holbrook and Corfman 1985, Garvin 1988).

In spite of the explicit recognition of the definitional issue as a problem in the operational implementation, and theoretical development of quality management, there have been few

attempts to confront the difficulties associated with defining quality. The extant literature contains many attempts to define quality for the purposes of empirical study. However, the overwhelming objective of these studies has been to examine the correlates of quality and not the nature of quality itself. Few attempts have been made to address the problems associated with multiple definitions.

In the quality management field Garvin's work has come closest to directly addressing these definitional issues. In order to analyse the meaning of quality Garvin (1988) proposed a classifactory framework of definitions. Garvin posits that researchers in the disciplines of philosophy, economics, marketing and operations management have all explored the quality issue independently and that "the result has been a host of competing perspectives, each based on a different analytical framework and employing its own terminology". Garvin proposes a classifactory model which identifies five principal approaches to defining quality.

(i) Transcendant - In this perspective quality is synonymous with 'innate excellence'. It is an absolute concept and universally recognizable, whilst at the same time being an implicit property of a product or service.

(ii) Product based - Quality is a precise, objective and measurable variable. Differences in quality simply reflect differences in the quantity of some ingredient or attributes possessed by a product or service (e.g. durability).

(iii) User based - Quality 'lies in the eye of the beholder'. It is subjective, often irrational and varies between individual consumers. Goods/services that best fulfil an individual consumer's needs and expectations are perceived by that consumer as of the highest quality.

(iv) Manufacturing based - This approach defines quality as essentially conformance to planned specifications in production and are therefore almost wholly concerned with engineering and manufacturing practices.

(v) Value based - Value based definitions move one stage further by bringing cost and prices into the quality equation. Thus a 'quality' product/service is one that provides performance or conformance at an 'acceptable' price or cost.

The primary aim of Garvin's framework is to aid an operational understanding of competing perspectives of the quality issue, in order to minimise conflict and misunderstanding in the practice of quality management. Holbrook and Corfman (1985) have addressed the same issue from a different perspective. The primary objective of the classification model proposed by Holbrook and Corfman is to examine the state of conceptualization of quality in the context of other types of value. This wide ranging classification model highlights the disparity and confusion that exists in the area of quality definition.

Holbrook and Corfman's classifactory model leads them to suggest that quality has received inadequate conceptualization in the definitional considerations in the extant literature: 'The problem, in general, is that we find too many contrasting views - none of which is conceptually well enough grounded to provide definitive guidance'.

Garvin (1988) posits that the definitional issue and the co-existence of 'competing' views of what quality actually means are important causes of conflict in the operationalization of quality management and cause 'serious breakdowns in communication' between functional areas and departments (since many of the different perspectives on quality are discipline and function based). Whilst in abstract terms the interfunctional and interdepartment problems associated with the operationalization of quality management may be viewed as a form of paradigmatic competition (Morgan and Piercy 1991b), this may not provide useful guidance or insight for marketing practitioners.

		IMPLICIT	EXPLICIT
MECHANISTIC		Production based	Reliability based
	Conceptual	Classical Economics	Ordinary Consumer Language
	Operational	Value Analysis	Quality Control
HUMANISTIC		Qualitative	Features based
	Conceptual	Microeconomics	Philosophy
	Operational	Macroeconomics quality of life	Multi-attribute and multi-cue models

(Holbrook and Corfman 1985).

Towards An Integrative Model?

The classification models presented above provide useful frameworks for analysing the various approaches to defining quality. They do not in their present form, however, provide an integrative model for use in theory development. Similarly, they fail to provide a basis for reducing the interfunctional and interdepartmental problems often associated with quality management in practice.

In an attempt to integrate the various approaches to defining quality and to provide a practically useful model in the organizational context, both Garvin (1988) and O'Neal (1990) have proposed a process view of quality management.

The simple model proposed by Garvin views the quality management process from a functional and definitional perspective. The model suggests that multiple perspectives on quality may be operationally useful if the different perspectives are utilized at different stages as products move 'from design to market'. A three stage model is proposed: Firstly, a user based perspective, led by the marketing function which focuses upon the identification of consumer needs and the characteristics that connote quality to the end-user. Secondly, a product-based approach led by R & D and Engineering that translates the desired characteristics into parts, subassemblies and specifications. Finally, a manufacturing based approach led by manufacturing and operations that ensures that equipment and production processes and methods provide products that match specifications.

O'Neal (1990) offers a similar process view but focuses primarily upon the execution technologies employed in quality management and only indirectly upon the role of functional inputs and responsibilities throughout the process. The stages presented in this process model are (i) Informational - where customer needs are assessed and analysed; (ii) Technical - the product and process design stage; (iii) Operational - the logistical and manufacturing processes are designed; (iv) Logistical - distribution is arranged and product is marketed. The four stage model presented is used as a framework for indicating the role of the major execution technologies developed for quality management.

From a theory building perspective such process models of quality management do not provide an integrative definitional framework. The process view merely posits that conflictual definitions of quality may be more useful if considered sequentially through the product development cycle rather than in parallel in the organizational setting. Conceptualization difficulties are unresolved since the major differentiating characteristics between the multiple perspectives and approaches to defining quality remain. Fundamental definitional issues remain to be addressed: Is quality as a concept universal or non-universal?, objective or subjective?, discernible or non-discernible?, explicit or implicit?, relative or absolute? Each of the classifactory frameworks proposed cluster various definitions of quality around common characteristics and differentiating variables but do not attempt to resolve definitional approaches. The process models presented similarly avoid the resolution of definitional conflict.

The fundamental schism on the quality concept as related to the definitional issues raised above may be viewed operationally as representing a functional divide between marketing and manufacturing in the organizational setting.

The marketing perspective views quality as a concept that is subjective, non-universal, imperfectly discernible, and relative in nature. The manufacturing perspective conversely views quality as a concept that is objective, universal, discernible and absolute in nature. In the context of this fundamental and conceptually unresolvable schism upon the definitional issue, a different approach is obviously needed. At the very least some attempt must be made to respecify quality as the global concept of quality has obviously proven to be too accommodating to competing and conflictual perspectives to allow adequate conceptual development.

In the operational setting the definitional issues and conflicts are often represented in competing functional views. Whilst the process models discussed attempt to overcome the dysfunctional outcomes of competing definitions, the operational difficulties with, and the importance of, interfunctional co-ordination and co-operation remain (Garvin 1988). Quality management in practice is seldom free of the organizational power and political context which make the simple resolution of the definitional issue via a process view almost impossible. The Garvin model also has important limitations in the role that is ascribed to the marketing function in the management of quality. This model follows the prescriptions of the technical quality management literature (e.g. Oakland 1989) in viewing the fundamental role of marketing as that of uncovering and reporting customer needs and expectations as an input to product/ service development and design.

The management and marketing literatures contain many diverse bodies of evidence that would suggest that the potential role of marketing in the management of quality may be far greater than has been assumed in the technical quality management literature e.g. the existence of informationally imperfect market mechanisms provides marketers with the ability to impact upon consumers' subjective assessments of product/service characteristics and quality (Telser 1964, Nelson 1970, 1974). More recently the service quality literature in its conceptualization of the consumer quality evaluation process (e.g. Parasuraman et al 1985) has recognized the role of marketing communications in the formation of customer expectations and the consumer learning literature (e.g. Hoch and Deighton 1989) highlights the potential role of marketing communications in 'managing' customer perceptions of the consumption experience. Thus the wider literature suggests that the potential role of marketing in the management of quality

may be far more important than the simple researching and reporting of customer needs. Thus, in an attempt to identify the role of various functions in the quality management process sequentially, and overcome the dysfunctional outcomes that may be associated with competing views of quality, the Garvin model may be seen as having artifically limited the role of marketing in the management of quality.

A Contingency Perspective

In an attempt to respecify quality in order to limit the unresolvable definitional issues, it may be useful to consider a contingency perspective. Many contingencies may enable the quality concept to be broken down into more tightly specified forms to minimise definitional problems and allow further conceptual development. However, if we are to construct a contingency perspective that is likely to be operationally useful, particularly in terms of defining the role of marketers in the management of quality, then the choice of contingencies may be more limited.

One of the most potentially powerful contingencies from the operational perspective that may be considered is that of the Business Strategy. Adopting a basic Porter (1980) strategic typology perspective suggests that organizations can achieve a competitive advantage from two sources - low cost or differentiation. This may be a useful contingency variable in relation to the quality concept since it provides the possibility of accommodating the differentiating characteristics of definitional issues that the various classifactory schemes leave unresolved.

The contingency framework presented also incorporates the two basic ways in which quality has been modelled as impacting upon organizational performance (Garvin 1988). Thus the low cost strategy quality approach would be likely to focus upon improving performance by decreasing the external and internal 'costs of failure' e.g. less scrap and rework, and lower warranty costs and returns, as well as benefiting from increased productivity (Crosby 1979, Campanella and Corcoron 1983). In contrast, the differentiation strategy quality approach is more likely to impact upon organizational performance via marketplace gains e.g. decreased price sensitivity, increased customer quality perception, decreased customer turnover.

Adopting a business strategy-quality contingency perspective may have a number of advantages. Firstly, it provides marketing practitioners with far greater insight into their potential role in the development and implementation of quality strategies within their organizations. Secondly, the strategy contingency allows many of the definitional issues and problems that have been associated with quality to be resolved without splitting the quality concept into a large number of sub-concepts and components. Finally, in operational terms the dichotomous strategy variable is well known in the existing literature and amongst managers making the framework easily accessible.

The limitations of the contingency model proposed are obviously not insignificant. The typology of business strategies pursued whilst well-known, is obviously highly simplistic. It may even be difficult operationally for managers to classify the business strategy being pursued in terms of a dichotomous typology variable. This framework also fails to address the issues associated with the levels of strategy that may exist within an organization e.g. should the framework be applied at the corporate, business or even functional level.

Figure 1 - Business Strategy-Quality Contingency Model

Quality Management Approach	Source of Competitive Advantage: Low Cost	Source of Competitive Advantage: Differentiation
Key objectives	Decreasing costs Increasing productivity Decreasing customer costs	Decreasing price sensitivity Customer perceived differentiation Increased customer satisfaction and loyalty
Execution Technologies	Value engineering Statistical process control JIT	Marketing research Marketing communications Quality Function Deployment
Lead Function	Manufacturing/Quality	Marketing
Concept Characteristics	Objective, universal, discernible, absolute	Subjective, non-universal imperfectly discernible, relative

Implications for Marketing

In organizations pursuing the low cost quality strategy then marketing is unlikely to provide important functional inputs in the development and implementation of quality strategies and programs. The lead in this area is likely to be taken by the manufacturing/operations/quality areas which will utilize many of the existing technical quality management execution technologies in order to increase conformance to specifications and minimise the costs of failure. The primary impact upon the marketing area is likely to be in terms of the application of some quality management tools and techniques to marketing processes in order to reduce the costs of failure and increase productivity in the marketing area e.g. cutting new product development cycle times.

In organizations pursuing a differentiation strategy however, the focus of the strategy is obviously to differentiate the product in the consumer's mind (usually upon some dimension of customer perceived quality) in order to decrease price sensitivity and increase customer loyalty. The lead in this quality strategy is much more likely to afford opportunities for the marketing area. Marketing research is likely to be useful particularly in terms of identifying dimensions of customer perceived quality, the relative weightings of dimensions and likely product/service quality cues. Marketing communications of various types are likely to be useful in terms of actively manipulating customer expectations and managing customer perceptions of the exchange and consumption process and outcomes. Similarly, marketing communications will be an essential component in decreasing customer price sensitivity (Farris and Reibstein 1979).

Researchers and observers of quality management in organizations will certainly recognize the characteristics and approaches of quality in the low cost strategy contingency. Indeed, this may be seen as representative of the general approaches taken in quality management in the US and Europe, particularly in manufacturing industries - even in organizations that have not been pursuing low-cost competitive advantage strategies. Many of the tools, techniques and execution technologies of quality management are grounded in the practices developed in Japanese manufacturing companies (even though many of these were inspired by American quality 'gurus' such as W. Edwards Deming). Prior to the mid to late 1980s most Japanese companies that were studied and well known in the international marketplace were pursuing essentially low cost competitive advantage over market life-cycles. Thus it is possible that many US and European organizations, and the technical quality specialists, have imported and utilized quality management tools and techniques developed by Japanese companies pursuing low cost competitive advantages. Whilst these tools, techniques and technologies may be useful in organizations pursuing low cost competitive advantage, they may not be equally applicable in organizations pursuing a differentiation strategy.

This may be one of the reasons for the apparent ambivalence of marketers towards quality management. It may be that traditional approaches to the management of quality have, at least in organizations pursuing differentiation strategies, been inappropriate and misleading vis-a-vis the importance and role of marketing in the management of quality. Marketing and customer based approaches to quality are more likely to be consistent with the achievement of differentiation in the marketplace than manufacturing and product based approaches.

In the organizational context it is unlikely that using the contingency model presented, organizations would pursue one approach to quality exclusively e.g. firms pursuing a differentiation strategy are unlikely to completely ignore the cost savings that may be associated with statistical process control of production processes. Greater insight in this context may potentially be derived by utilizing a complementary value chain contingency framework. However, the framework does provide an indication of the most important approach to quality in terms of the successful implementation of the chosen business strategy, and the most appropriate execution technologies for quality strategy if it is to be consistent with the business strategy pursued.

The contingency framework presented here represents only a limited conceptualization and still has many problems associated with it. However, even in its present form the model does provide some insight for practitioners. It highlights the need for consistency between the quality management approach and the business strategy being pursued. It also provides some clarification and guidance to marketers in terms of the meaning of quality and the role of marketing in the management of quality. In its present form the contingency model may be of limited use in terms of theory building and conceptual development. It may, however, allow sufficient resolution of the definitional conflict to encourage marketing academics to examine and research this area to a far greater degree than is apparent from the extant literature. Whilst the model proposed remains limited in conceptualization, it is hoped that the embryonic development of a contingency framework will encourage others to tackle the quality issue in the context of business and marketing strategy.

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THE STRATLOGIC APPROACH TO THE ANALYSIS OF COMPETITIVE POSITION

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Abstract

The paper describes a data driven approach to the analysis of competitive position that has its origins in a portfolio-based methodology previously described by Moutinho (1987). The Stratlogic approach is not driven by a pre-specified portfolio model and its derived matrix; instead it involves users in a procedure that combines multidimensional scaling and cluster analysis. The paper outlines the proposed methodology and draws attention to some technical and managerial issues thought likely to arise. This work is part of a programme of continuing research into the development of expert systems for areas of strategic marketing decision making.

Introduction

Expert judgements have an important role to play in strategic marketing decisions. In the emerging field of expert systems techniques are being developed for systematically representing and deploying expert knowledge in computer systems. The authors believe that the computerisation of elements of marketing expertise will enhance marketing management decision making activities and they are engaged in a programme of research that investigates the potential for the development of an expert system for the analysis of competitive positioning.

The area of analysis of competitive positioning has the typical features of 'semistructured' domains generally considered appropriate for the application of expert systems methodology, eg: a large number of contingent contextual factors impinge on the decision; managers develop and use rules of thumb that help them to draw conclusions about competitive positioning that are informed by a personal view of the recipes that various players are using in the competitive domain; and conventional modelling techniques are generally inadequate for representing such heuristics.

An early part of this work has attempted to draw together various strands of thought on the substantive and methodological knowledge base in marketing regarding the analysis of competitive positioning and the managerial process that provides its context. Portfolio techniques have drawn attention and much has been learned about design and process issues as a result. The remainder of this paper outlines the design of a methodology that the authors believe will have a place in an expert system for the analysis of competitive positioning.

Preliminary Issues

The work of Wensley (1981), Allessio (1982), Coate (1983), Day (1983) and Wind, Mahajan and Swire (1983), among others, alerts us to the dangers of the blanket application of standardised portfolio analysis models. They share the view that strategists should actively participate in the specification of a portfolio model's design parameters, rather than demit to the preferred off-the-shelf model of a consultant. This paper builds on those observations. It argues that the selection of a portfolio model calls for close scrutiny of its construction and the sensitivity of its diagnostics to the dimensions employed as well as their measures. This is the starting point for the Stratlogic approach. It has been developed in an attempt to address two key problems that beset portfolio analysis as a possible basis for an expert system for the analysis of competitive positioning:

(1) how to improve a portfolio model's 'fitness for purpose' by tailoring it to the context of the user;
(2) how to balance theory with data in a portfolio's underlying analytical framework.

Fitness for Purpose

Much criticism, including that of Jacobsen and Aaker (1985), has been levelled at the assumed universality of the dimensions of competitive strategy that have been built into most portfolio models. The authors believe that tackling the need to ground those dimensions in managers perceptions and their accounts of actual competitive behaviour is at the nub of the design issue. Building on Wind and Mahajan's (1981) guidelines for portfolio design, the Stratlogic approach sets out to tackle this issue by deliberately creating a role for strategic management (users) in the selection and definition of relevant variables on competitive posture, as well as the collection, calibration, reduction and transformation of pertinent data.

Previous versions of the Stratlogic model have been based on pre-specified dimensions of competitive positioning such as market share, strategic marketing ambition, return on investment and growth (Moutinho, 1987). Trial applications have shown that those dimensions do not have universal applicability. They have also shown that managers often have important ideas and insights about the attributes of competition in a specific product market and how the various players measure against them and with what effects.

In the light of those observations, the Stratlogic approach makes use of a revised version of the original model. It now proposes that through a dialectic process, users define the boundaries of the competitive domain as well as the measurable attributes of competition in any specific context. The aim is to build up a picture of the scope and resourcing of the competitive activities (strategies) and outcomes (performances) of a defined competitive set, operating within a clearly delineated product market area, and over a specified period of time.

Of course knowledgeable industry analysts or commentators may also inform the efforts of management. But, it is charged with the task of identifying the various dimensions of competition in a domain that it defines, as well as their relative importance to the players in it. Clearly this requires that participating managers possess, or have access to, a thorough and authoritative understanding of the dynamics of competition in the defined domain.

To identify and then assess which dimensions best capture the basis of competition and competitive advantage in the context under study is a difficult task. Some degree of consensus is required if the Stratlogic approach is to proceed, but it is not mandatory. The approach is sufficiently flexible to allow analysis to proceed on the basis of several views of the dimensions that best suit the purpose. That managers can exercise discretion over the choice of variables measuring the scope, resourcing and performance of the competitive strategies of players also provides a capability for 'What If', as well as 'What Is' analyses.

A dialectic routine would help facilitate the resolution and creativity needed in this task, especially where participants not only hold senior positions, but also strong opinions (Mason, 1969; Mitroff, 1971). By means of such a process, and a careful analysis of the content of previous studies and other documentation, managers can help to define the broad structure of an a priori descriptive model which should capture the various recipes for competitive positioning that the players seem to have mobilised over a specified period of time.

The variables that might be chosen are summarised under the broad headings described in **table 1** below. This table is not exhaustive. It only considers attributes of market posture, which are largely within the control of marketing management at the level of the business unit. And having done so it tends to define competition in terms of marketing strategy without signifying the importance of dimensions of competition that are influenced by other functional areas such as production and finance.

Table 1
CONSTRUCTS OF STRATEGY AND PERFORMANCE IN THE STRATLOGIC APPROACH

* Strategic Marketing Ambition (SMA)
  Measured by estimating the investment made during the specified time period by each of the players in the defined competitive set in each of the pre-specified mix elements. The revenue stream from which the investment was resourced is estimated. The SMA of any one player is then calculated by taking his aggregate marketing investment intensity and dividing it by the average investment intensity of all the players. This can also be done for each of the mix elements individually, eg, the intensity of advertising, promotion, receivables, price, sales force, new product effort; customer service quality; product quality and reliability; channel coverage; breadth and depth of customer base; breadth of product line.

* Scope(S)
  Measured as that fraction of total revenue accounted for by revenue from sales made into the defined competitive domain.

* Productivity(P)
  Valued added per employee.

* R & D
  A measure of process and product R & D intensity.

* Present Market share(PMS)
  Measured as the ratio of unit sales achieved by a player in the given time period, to total volume achieved by all the players in the defined product market over the same period.

* Market share change(MSC)*
  The sum of the changes in market share achieved over a specified time span divided by the number of periods.

* Relative Market Share(RMS)*
  The PMS of any player divided by the total market share of his three largest competitors

* Return on Investment(ROI)
  Net operating income over average investment for the period.

* Sales growth rate(SGR)
  Sales growth of the defined products net of inflation.

* Asset growth(AGR)
  Growth of the gross book value of assets attributable to the business unit.

* Return on sales(ROS)
  Net income divided by net sales.

* Cash flow(CF)
  Estimated as net income plus depreciation for one period, minus changes made to fixed plant and equipment and working capital between the last period and the current period. These changes can be estimated by averaging the investment intensity for both periods and multiplying the net income plus depreciation figure by the resultant.

*
  Measures can be made relative by comparing the measure for any one player with those for a selected number of the players in the competitive set for the same period.

* Change measures can be calculated by comparing the value for one specific measure for any one period of time with the value for the same measure over another period of time, eg, the average value for the last three periods.

However, additional attributes of both broader strategy and performance measures can be added to better reflect the specific competitive context as managers perceive it. For instance, as Galbraith and Schendel (1983) argue, the dynamic nature of competition can be captured by including variables that measure the change in attributes over a specified period of time. Variables of a relative nature can also be constructed to measure one player's position with respect to a group of other players, eg, the leading three competitors. Since firms typically compete on several platforms, whilst pursuing multiple performance objectives, a wide range of attributes is initially desirable, although some economy is ultimately desirable.

The measurement of some attributes may require information that is not available, or is otherwise beyond the judgemental scope of management. And even with the best will in the world the exact nature of any competitor's marketing investments is impossible to determine with accuracy. The Stratlogic approach allows managers to estimate difficult to measure competitive activities relative to the observed actions of other players in the market-place along a five-point ordinal scale.

Ultimately, as Fiegenbaum, Sudharshan and Thomas (1990) argue, the selection of relevant attributes to encompass both the scope and resourcing of competitive activities is a union of those typically used to capture strategic behaviour in the strategic management literature, those identified by industry analysts and researchers, and the strategic management of players within the defined competitive set. In some ways the variable set of the PIMS data base provides a useful guide and ready-reckoner of definitions of strategy and performance variables and their measures which can be employed by the Stratlogic approach.

Underlying Analytical Framework

In the Stratlogic context it is not enough to identify the forces of competition that are thought to be at work in a defined domain; those forces need to be clearly defined and measurable; and the metrics must be capable of calibration. And so there is a need for an underlying organising framework to provide the context within which measures, measurements and their calibration can occur, so that an analysis of the model becomes possible. When calibrated in the context of this organising framework, the descriptive model developed by managers will then drive data collection.

The Stratlogic approach utilises an organising framework that is informed by the view that the performance of any player in a defined competitive domain is a function of the strategy(conduct) he follows and how it differs, along key competitive dimensions, from the strategies being followed by the other players (structure). Since some strategies are better suited to particular contexts than others (Miles and Snow, 1978), what then differentiates high from low performance in any defined competitive domain is the degree of fit achieved between any player's strategy and the competitive circumstances he operates within.

Previous empirical work has also shown there to be a limited number of identifiable strategies, each of which involves a different pattern of competitive positioning activities and resource deployments (Galbraith and Schendel, 1983). This view leads to the possibility of recurring patterns of competitive conduct and performance outcomes within a defined competitive domain. Those patterns in turn define groups of players on the basis of the similarity, or dissimilarity, of their competitive strategies along key dimensions; and the similarity, or dissimilarity of the performance outcomes they achieve. The potential for visually mapping those patterns is exploited in the Stratlogic approach.

Recent strategic group research has found that overlapping groupings and significant intra-group performance variations are also possible (Fombrun and Zajac, 1987; Cool and Schendel, 1988). Those findings provide an added dimension to the search for patterns of competitive positioning. It is not enough to search on the basis of a rubric that posits performance as a dependent variable and strategy as an independent variable-controlling for the environmental variables that typically define market structure through manipulating the definition of the competitive domain (sampling), or through using simultaneous equations. The search for patterns of competitive positioning should factor strategy attributes, as well as performance measures, into the classification or grouping scheme.

Empirically derived patterns of competitive positioning are made on the basis of similarities and dissimilarities along derived dimensions of strategy and performance. Those patterns, or groupings, then have embedded within them comparisons and contrasts of the efforts of the players in a defined competitive domain. That it is then possible, via data reduction and spatial analysis methodologies, to construct a visual map of the competitive domain in terms of those similarities and differences is at the centre of the Stratlogic approach. The notion of vectors of variables in 'competitive positioning space' provides one way of thinking about how to map out the differences and similarities, or proximity, of the players (Moutinho, 1987).

The concepts of points, vectors and distance in multidimensional space provide the basis on which to express any relationship of proximity between the players. The stratlogic approach makes use of this quality and proximity data to map any player against the others in the defined competitive domain, along dimensions derived from the original strategy and performance attributes. Players can be grouped visually according to their proximity to each other in the competitive space mapping. However, a cluster analytical routine is used in the Stratlogic approach, lending some rigour to the grouping procedure.

Patterns or groupings exist to the extent that the competitive efforts of the players, as measured by the defined strategy and performance attributes, converge or diverge along the derived dimensions of competitive position. The Stratlogic approach uses this quality to help users differentiate between core and dimensional competitors. Core competitors will score very similarly on the specified strategy and performance dimensions and in this sense will be close, forming a group with similar competitive conduct patterns. They will also represent the most directly dangerous competitors for players within the same strategic group. Dimensional competitors will be those players that achieve a similar score on any one strategy or performance dimension, but are otherwise distant to the player in question. They will represent players who, as members of another strategic group within the defined competitive domain, will be less direct and dangerous competitors.

The competitive positioning of any player is a function of the positioning of the other players, as defined by the spatial interrelationship of the realised dimensions of strategy and performance. The resulting mapping provides a visual representation of the various positionings in skeletal form. Its value lies in stimulating new ideas for competitive positioning strategies, perhaps to be pursued in imitation of an existing attractive positioning; or in pursuit of an innovative positioning. Clearly, management has to carefully scrutinise any analytically derived mapping of competitive position and form a judgement about its validity, as well as the attractiveness of the various positionings it presents; the assets and skills needed to achieve them; and the feasibility of doing so, given any player's existing mix of assets and capabilities. There are also limits to the mobility of players and thus to their ability to change positioning.

The Stratlogic Approach

The Stratlogic approach is Deliberately designed to be data driven. It draws on a combination of techniques that have found popularity in strategic group research (Galbraith and Schendel, 1983; McGee and Thomas, 1986; Harrigan, 1985; Cool and Schendel, 1988). This work has revealed the potential of various combinations of multivariate techniques to explore the underlying structure of data describing the competitive profile of markets. The Stratlogic approach attempts to combine the exploratory power of such methodologies with management knowledge of a specific set of competitive circumstances, whilst also producing a visual representation of the data analysis.

The underlying analytical framework is supported by two broad methodological pillars: metric multidimensional scaling; and cluster analysis. The first basic pillar involves a two-step methodology which derives competitive positionings from the empirical data set by performing a spatial analysis using the bi-plot technique. The second pillar is a cluster analysis which uses as input to it the dimensions derived from the principal components analysis conducted as part of the bi-plot. The resulting cluster solution is then embedded on the bi-plot maps as a way of confirming visually defined groupings.

The Stratlogic approach thus specifies a spatial model, rotational scheme, type of cluster analysis and sequence of use. The recent work of Desarbo, Jedidi, Cool and Schendel (1991) reminds us of the technical limitations of such hybrid methodologies, the main one being the difficulty of embedding the cluster analysis in the spatial representation. They propose a new and very sophisticated stochastic procedure for simultaneously performing multidimensional unfolding and cluster analysis which helps to address this limitation. It also utilises mixtures of multivariate conditional normal distributions to estimate a joint space of stimulus coordinates and K ideal points, one for each cluster, in a T-dimensional space. The stochastic and simultaneous qualities of this new model are technically attractive and future developments of the Stratlogic approach should draw on them. As it currently stands the Stratlogic approach has the advantage of being managerially oriented. The cluster routine is used to suggest to users possible patterns of competitive positionings, not to specify the best, or optimal clustering solution.

The first stage of the Stratlogic approach is to derive the n-dimensional scaling space of strategy and performance attributes using the bi-plot technique. The first step determines the similarity of the players as measured by the euclidean distance between the residuals of the strategy and performance attributes. The metric multidimensional scaling technique, principal coordinates analysis, is then applied to the derived distance matrix to produce an n-dimensional solution; if ordinal data was to be processed a non-metric multidimensional scaling method would be used. Since the purpose of mapping is to represent the original hyperspace in two dimensions, a two dimensional solution is to be preferred, but this depends on the 'goodness of fit'achieved. The number of dimensions can be increased to three and even four dimensions, but the configuration of the mapping diagram has to change accordingly. A solution involving more than three dimensions would be represented as a unidimensional plot with the requisite number of parallel lines calibrated against the same metric.

The bi-plot then calculates the correlations between all the strategy and performance attributes, taken in pairs, across the scores for each of the players in the defined competitive set. The resulting correlation matrix is then subjected to a principal components analysis (PCA). It transforms the original strategy and performance attributes into a reduced number of derived dimensions such that the loss of information is minimised. Prior to performing a PCA, strategy and performance attribute scores must be standardised where original measures were made in non-compatible units. The PCA extracts factors (derived dimensions) sequentially; so, the first factor accounts for the maximum common factor variance across all the variables (strategy and performance attributes); the second factor is then extracted at right angles to the first, etc. Once again it is desirable to use a two-dimensional plot, where the 'goodness of fit' achieved allows this.

The strategy and performance attributes (ie the variables) are plotted as vectors in two dimensions with the cosine of the angle between any two of them representing the correlation between them. By visually examining the location of groups of strategy and performance attributes with respect to the axes (derived dimensions), especially those lying at the extreme positive and negative poles, it is then possible to take a view on what the axes represent. The profile of the loadings of the strategy and performance attributes against each of the derived factors also gives clues as to the structure of a factor, especially where particular attributes dominate the factor.

The results from the two plots can be interpreted directly if they both use euclidean distance as the measure of similarity; and if the row and column effects of the original data matrix are additive. By scaling the axes of the two maps so that they are equivalent they can then be superimposed to produce a joint mapping. This would then provide an informative visual display of the strategy and performance attributes and the players, showing which strategy and performance attributes applied to which players. The relationship between any player and any strategy or performance attribute can then be examined. The bi-plot also allows the user to ask 'what if' questions such as what would happen to the competitive position of the players if strategy attribute Q was thought to apply 30% more to players A and B than it is currently perceived?

The second stage of the Stratlogic analysis is to perform a cluster analysis as a way of grouping players on the basis of the derived dimensions. The principal components derived by the PCA are used as input to the cluster analysis. In this way the clustering routine that follows is then performed in a metric space with orthogonal dimensions, which as Galbraith and Schendel note (1983), makes the use of distance analogies in cluster analysis conceptually sounder than in many other cluster algorithms. Euclidean distance is used as the measure of similarity and a hierarchial agglomerative method is used as the clustering technique. This method proceeds sequentially from the lowest level, where all the players to be clustered are independent; then following the application of the single linkage algorithm, players are merged until the highest level is reached, where all players have been fused into a single cluster. Clusters produced in this way are nested and this nesting is represented in a dendogram. It provides a visual idea of the relationships implied by the correlation matrix. The system of nested clusters derived from the analysis can then be diagrammatically embedded on the Bi-plot maps to get a picture of the relationships between the players in terms of the derived dimensions of competitive positioning.

To some extent the derived cluster solution will be a function of the type of cluster analysis used; the choice of algorithm used within the analysis; the distance metric used; and the preprocessing of the variables. Desarbo, Jedidi, Cool and Schendel (1991) argue that those, sometimes arbitrary, choices influence the clustering outcome in non-trivial ways. Their new methodology evaluates the impact of such choices through performing six different clustering analyses on the data for each of two distance metrics. It also performs a K-MEANS partitioning method for 2 to 6 clusters and finds that with the exception of the popular Ward's procedure, the methods lead to similar clustering results. The Stratlogic approach does not have this degree of technical sophistication at the clustering stage. It does advise that basic checks be made on the homogeneity and efficiency of the cluster solution, and that whenever possible the stability of the cluster solution should be checked through varying the parameters of the clustering procedure.

Conclusion

This paper attempts to make use of the strengths of the general approach to portfolio analysis. It builds a data driven methodology which combines multidimensional scaling and cluster analysis in a procedure that will help to explore the underlying structure of data on the competitive positioning of players operating in a defined competitive domain.

The Stratlogic approach reduces and transforms data without imposing a pre-ordained prescriptive step. It will help to visualise competitive positionings so to trigger the definition of marketing strategies in terms of desirable and undesirable positions. In so doing it will deliberately exploit management's creativity and insight, thus facilitating the strategic thinking that would be constrained where a predefined set of general propositions was imposed.

Clearly, the analysis of competitive positioning needs to be repeated at regular intervals to be of any real managerial value. For this reason the Stratlogic approach is reasonably simple and portable. Yet, there is a price to pay for those advantages in terms of technical limitations that diminish its analytical power. The next phase of the authors' work is to conduct field trials of the Stratlogic approach in companies that are participating in the development of an expert system for the analysis of competitive positioning.

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THE COMSTRAT MODEL: DEVELOPMENT OF AN EXPERT SYSTEM IN STRATEGIC MARKETING

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Abstract

This paper introduces an expert system model which is being developed with the objective of helping marketing managers to analyse the position of their company relative to their competitors, in a particular business or product area, and then suggesting ways in which this position might be improved. The authors also discuss a predevelopment test to assess management benefits, as well as the generation and elicitation of knowledge and expertise provided by managers themselves. In particular, this research considers the potential of an expert system to aid marketing managers in making competitive analysis evaluations.

Expert Systems in Marketing

Expert Systems (ESs) are a valuable tool for capturing and disseminating knowledge and skill, often to create a competitive advantage (Leonard-Barton and Sviokla 1988). Within marketing, a number of systems have been built (see, e.g. Rangaswammy et al. 1989, Singh, Cook and Corstjens, 1988; Claxton, Vandenbosch and Weinberg, 1990; McDonald and Wilson, 1990; Curry and Moutinho, 1991). With a number of ESs now being proposed for managerial use we think the focus should turn to decision making benefits (see also Henderson 1987).

Expert system techniques have the potential to extend model building into new areas of marketing. The major challenge in building an expert system is the construction and refinement of the knowledge base. Careful knowledge representation also helps the system to justify the course and the outcome of the consultation in language familiar to the user.

By modelling various intermediate relationships between variables, the system can reason about a broader range of situations than a system that directly associates competitive marketing strategies (as in the case of our ES) with input variables. This approach is consistent with recent trends in artificial intelligence research to develop expert systems using "deep knowledge" about the relationships between variables (Davis 1984; Michie 1982). The areas of strategic marketing and competitive management are suitable contexts for exploring expert systems for managerial applications. These two areas have the typical features of "semistructured" domains generally considered appropriate for the application of expert system methodology.

Competitive Strategy

In the turbulent and competitive markets of today, strategic management means, of necessity, strategic market management (SMM). SMM is the pursuit of sustainable competitive advantage - the offering of value to customers greater than that offered by competitors (Slater 1989).

Competitive strategy dictates how the business chooses to deploy resources in the pursuit of what it believes to be a sustainable competitive advantage. Day and Wensley (1988) say that the term "competitive advantage" is used to refer to superior competitive position based on the provision of superior customer value, or the achievement of lower relative costs, and the resulting market share and profitability performance.

Porter (1980) writes that the companies in a strategic group will tend to have similar market shares and be affected by and respond similarly to external events or competitive moves in the industry because of their similar strategies.

Measuring competitive position is a difficult task for which various methods are available, ranging from simple subjective judgement to sophisticated analytical techniques. The marketing area has tended to contribute analytical frameworks that favour the use of proxy measures of competitive position such as market share or relative market share. This approach has been widely criticised on the grounds that market share is itself almost always the outcome of a number of input variables that may determine the company's competitive success in a given business. These determinants must also be reckoned with, so perpetuating the drive forwards to increasing sophistication in the assessment of competitive position. Brownlie and Moutinho (1990) take the view that this process is made all the more inevitable by virtue of the fact that methodologies can be implanted and replicated with much less difficulty than can ways of thinking. They contend that the method is less important than the thinking it stimulates.

APPROACHES TO THE CONSTRUCTION OF COMPUTER MODELS

What the authors term the 'conventional' approach involves dealing with quantitative variables, which are linked together through algebraic functions. In the general case these functions are continuous and

differentiable. They may include a stochastic component. This approach includes a wide range of models which are not necessarily implemented through the medium of computers. Within this conventional approach are included both models which carry out formal optimisation procedures and those which are more descriptive in nature. The latter in turn includes Monte Carlo simulation models in which stochastic behaviour is explicitly modelled through random sampling from probability distribution functions.

An alternative approach can be found in the work of Eden (1991), in which no attempt is made to provide quantitative measurement either of objectives or decision variables. Instead the approach involves constructing the equivalent of a semantic network in which the links are symbolic. No rigid structures are imposed for the models which are used. The approach is similar in concept to 'brainstorming' tools or the breed of tree-structured word processing tools commonly referred to as 'outliners' or 'outline processors'. Eden reports that the approach has been used with a good deal of success as a group oriented training tool, which may well be seen as the main practical value to be obtained from any kind of computerised tool for strategic planning and management. One possible route for future development is to combine this kind of symbol processing approach with a rule based system.

THE COMSTRAT MODEL

Since expert systems (ESs) are costly and risky to develop, it is important to evaluate both technical feasibility and management benefits prior to ES development. Expert system research has emphasised the technical feasibility of system development. This paper discusses a predevelopment test used to assess management benefits, as well as the generation and elicitation of knowledge and expertise provided by managers themselves. In particular, this research considers the potential of an ES to aid marketing managers in making competitive analysis evaluations.

Objectives

This model is being developed with the objective of helping marketing managers to analyse the position of their company relative to their competitors, in a particular business or product area, and then suggesting ways in which this position might be improved.

With this overall purpose in mind, the development of the COMSTRAT model is focused around the following specific objectives:

i) to derive advisory output related to some key competitive strategies based on the manipulation of a number of organisational and industry-related variables.

ii) to provide a competitive positioning map within a specific industry strategic group based on some critical performance measures (ROI, market share and quality ratings).

iii) to allow for the utilisation of a dynamic knowledge base which contains as its main substance the "expert advice" gathered from marketing managers of top companies following a scenario-building and rule-induction process. In its subsequent stage of development, the COMSTRAT model is designed to permit and encourage the users to develop their own rules.

Basic Themes

The general theme of the research is to construct 'intelligent' software. This means that it should contain an element of expertise or knowledge, as opposed to dealing only with numeric information. An intelligent model is capable of conducting a dialogue with the user, can then reason by means of its knowledge base and can provide advice. It is essential that explanations of the reasoning behind the advice should be provided.

A subsidiary theme involves simplifying what can be an unmanageable 'mass ' of marketing data. This can be achieved by regarding the computer model as a framework for thinking about a particular problem. It must be emphasised very strongly that the software being developed is a tool for use by decision makers. It cannot be expected to replace human expertise. The aim is to provide decision support.

The most vulnerable part of any computer model is the expertise or intelligence that it contains. As far as strategic marketing is concerned there is no readily available source of such knowledge. An additional concern which needs to be addressed is that the user of a model or piece of software needs to place some trust in its knowledge and internal workings. Basing a model on very sophisticated theory and complex calculations, which are unfamiliar to users, can be a disadvantage.

In the research carried out so far these problems have been addressed in two ways. In the first place a model is more trustworthy if the user has been involved in its development, if its knowledge is a representation of the world as perceived by the user. We refer to this idea as the 'spreadsheet principle' on the grounds that spreadsheet software does not for example provide forecasts and projections but rather provides tools and a framework for users to produce their own forecasts. We see our software as a decision aid which acts to clarify reasoning about and to explore the implications of strategic moves.

As well as the user, the second source of knowledge available to be tapped can be found in marketing textbooks and in the academic literature. There is still a certain distance between the academic world and the world of the practitioner, and we feel that using soundly based theoretical models can help to bridge this gap by providing a sound base from which to work. Again this is not to say that formal models provide specific and concrete answers for decision makers. Instead we regard them as providing a framework for thinking about the issues involved and a means for exploring logic and implications.

Construction of the Model

We selected Leonardo (Creative Logic 1990) as the base for this system, as it incorporates several facilities of particular use in this type of model:-

1. a procedural programming language for manipulation in addition to rules and objects.

2. an object-oriented approach.

3. a screen design facility, useful in designing user-friendly screens.

4. the ability to explain a recommendation by showing the rules which led to that conclusion.

Finally, Leonardo is DOS-based, so a Leonardo-based expert system could be easily used by a manager on his/her own personal computer.

Overview of the Model

The user inputs data on the current state of the industry, the marketplace, his/her own company's operation in that marketplace, and competitors' operations. The model uses this knowledge to apply its rules, which are gleaned from marketing theory, and thus to advise the user on the general marketing strategies he/she should employ. Further interaction allows the user to consult the model on a range of possible competitive situations.

Operating the model involves the user in the following sequence:

(i) Information on the state of the market.
(ii) Information on the company itself.
(iii) Information on main competitor.
(iv) Assessment of product quality vis a vis competitor.
(v) Screen showing competitive positioning.
(vi) Initial advice screen, with explanation of advice.
vii) Further questions and advice.

Practicalities of Model development

The model was developed in its basic form over a period of three months. The development involved first formulating the conceptual structure and then generating a set of rules around it. The rules were aimed specifically at selection of appropriate strategies. The rulebase resulted from a distillation of various sources of expertise, including preliminary consultation on an informal basis with selected managers. The final stage of development involved designing the input and output screens, with special emphasis being placed on user friendliness.

Input Screens

On the first two input screens, the user is asked to describe the current market structure in the industry. Much of the theory underpinning our model is derived from the PIMS database, as it is the most extensive study of the factors influencing company performance. Thus the aspects of market structure to be described are those which PIMS identifies as key variables in determining appropriate strategy:- Evolutionary Stage, Competitive Intensity, Market Leadership, Use of New Technology, Potential for Deriving Competitive Advantage, and Market Share and Return on Investment for the top three firms in the market. Where possible, these are defined by selecting an option from a menu (see Figure 1). The user is then asked to give details of his/her own company. Again, PIMS theory has been used to select the key variables most relevant to competitive strategy - Market Share Rank (1, 2, 3, 4 or below), Company Growth Rate,

Productivity, Degree of Verticle Integration, Market Share and Return on Investment. A similar screen then appears for the user to rate the same key variables for competitors.

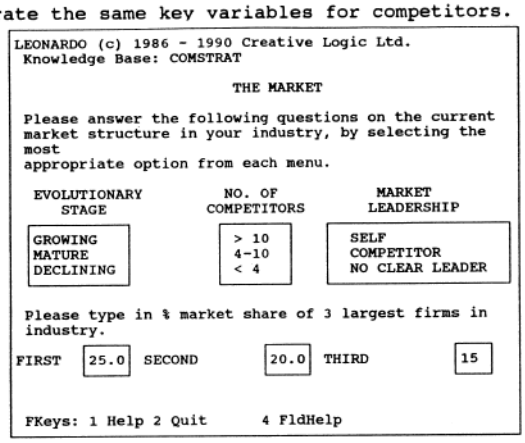


Figure 1 Initial Input Screen

Finally, quality ratings are asked for. The user rate his/her product quality against that of the competitor(s), on a scale of 1 to 10 for each. This reflects the importance accorded to quality in the PIMS findings as the largest single factor influencing market share.

Output Screens

There are three stages of output from the model:-

1. Graphical Screen
2. Initial Advice
3. Further Advice

The Graphical Screen

Based on the information input, two-dimensional graphs are displayed showing the positioning of the firm and its competitor(s) on key variables, e.g. Return on Investment v Market Share, Market Share v Quality. These could also be amalgamated to produce a multi-dimensional vector analysis diagram. Thus the user can see the company's strengths and weaknesses relative to competitor(s) and analyse the strategic groups within the industry. Text could also be added, to either the two-dimensional or multi-dimensional diagrams, to describe the characteristics of the strategic groups.

Initial Advice

The next screen gives general advice based on the information input by the user, with justification for the suggestions, e.g. for a situation where the industry has been described as 'declining' and the company is the market leader, the advice given would be:

> 'As leader in a declining industry, you should aim to be the only major company left. Encourage others to leave by reducing their exit barriers, and competing aggressively for market share'.

Further Advice

The next screen allows a dialogue between the user and the system. Depending on the information already input, the system asks a series of questions and replies with any further relevant advice e.g., 'Is the competitor a leader in current technology? Y/N. Answer Y - 'Competitor may be unable to embrace next developments in technology because of current investment. Try to leapfrog them by finding or developing even more up to date methods'. Answer N - 'Look out for opportunities to use technology to increase productivity or cut costs.'

At present the advice output is taken from two of the available theoretical writings on competitive strategy - 'The PIMS Principles' (Buzzell and Gale, 1987) discusses appropriate strategies, based on PIMS findings, dependent on market share and market evolution, and 'Competitive Strategy' (Porter, 1980) discusses strategies appropriate to different industry environments.

VALIDATION AND CONCLUSIONS

Proper validation of Comstrat requires the use of at least three criteria. The first criterion is the validation of the substantive contents of the knowledge base. The relationships specified in the rule set should be qualified properly, in light of the range of situations to which the system will be applied.

The second criterion is validation of the system's recommendations against expert judgements. For a broad set of problems, the system's recommendations can be compared with those of top experts in competitive strategic marketing. A high correspondence would suggest that the system can emulate the problem-solving behaviour of experts.

Third, we can test whether the use of the Comstrat Model ES results in better decisions or higher payoffs. One form of this test is the validation-in-use procedure whereby the quality of system users' decisions is compared with that of nonusers' decisions.

Expert systems such as Comstrat could serve a number of important functions for marketing managers. First, they stimulate and encourage managers to explore new options, challenge assumptions, play "what if" games, and critically assess their own strategic marketing expertise, all of which could improve the quality and outcomes of their competitive analysis and strategic marketing decisions. Second, these systems provide a mechanism for bridging the gap between academics and practitioners, as well as transferring strategic marketing expertise available at one level in the organisation to other levels. This capability could minimise the costly duplication of scarce expertise and also allow for uniform implementation of policies. When deciding on the appropriate competitive marketing strategies to employ, managers would be able to combine their expertise with that of other experts and with the accumulated empirical and theoretical knowledge about competitive strategic marketing. Third, expert systems can serve as a vehicle for accumulating organisational knowledge in a systematic way. Finally, Comstrat - like systems can be used as training tools for new managers in certain specialised areas of marketing.

The development work outlined in this paper is part of a wider research study which examines the potential for applying Artificial Intelligence techniques in the Marketing field. One of the main themes involves comparing the various modelling approaches. The authors are currently working on applications of Neural Network techniques, which do not require an explicit set of rules but rather learn from sets of cases presented to them. Exert Systems may also learn in a similar way, using statistical rule induction methods, but learning plays a more prominent role in Neural Networks.

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Accuracy in Self-Report Measures of Arousal: Use of a Bogus Verification to Attenuate Sensitivity Bias in Sex-in-Advertising Experimentation

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Abstract

Researchers are aware of possible biases in responses to queries about sensitive areas such as sexual feelings or behaviors. Yet when researching issues related to the efficacy of sexual depictions and innuendoes in advertising, researchers have relied almost entirely on self-report measures. Several studies which compare self-report measures to physiological measures found severe incongruities between self-report and physiological measures of arousal--which is commonly used as an independent variable in sex-in-advertising studies. This study attempts (1) to determine if the disparities between physiological and self-report measures are a result of inaccurate self-reports and (2) to suggest and test a technique for improving the accuracy of self-report responses to sensitive inquiries.

Introduction

Advertisers have been linking products to sexuality for thousands of years. Taverns at Pompeii advertised their services by painting lurid erotic frescoes on their outer walls. In modern times advertisers utilization of sexual allusions is pervasive, endemic, and systemic (Strong 1978). Though the government and especially the Supreme Court have grown more conservative, society appears to have become more tolerant of sexiness in ads. While the percentage of ads employing sexuality did not change from the sixties to the eighties, the intensity of sexual portrayals, especially visual depictions, increased dramatically (Soley and Kurzbard 1986). Nevertheless, advertisers are aware that some people are offended by sexual depictions (Belch et al. 1981; Goldsmith and Freidan 1986; Peterson and Kerin 1977). Advertisers must often balance the probability of a desired response--subjects becoming aroused when confronted with the ad--against an undesired response--subjects being offended when confronted with an ad.

Much of the research on sexuality in advertising, however, *relies on self-reports of arousal as a key independent variable.* Because open disscussion of sexual matters is often taboo in western culture, researchers have suggested that self-report data regarding sexual habits and other sensitive areas like income are extremely prone to bias (Parasuraman 1990). Subjects may refuse to answer questions about sexuality, or worse, they may give incorrect answers. In the former case, results will be biased towards people who are honest and open about sexual matters. In the latter case, misleading conclusions may result from incorrect responses.

Belch et al. (1981) and Winzce, Hoon, and Hoon (1977) tested subjects using physiological and self-report measures of arousal. Both studies found strong disparities between the two measures of arousal.[1] If the physiological measure used by Belch et al. (1981) and Wincze et al. (1977) accurately reflects the latent construct arousal, then this study threatens to discredit much of the research that relieson self-report measures of arousal. When two measures which purport to measure the same construct give very different results, several explanations are possible: (1) *the two measurements may not be measuring the same thing* or (2) If they are measuring the same thing, *then at least one of the measures must be inaccurate.*

The purpose of this paper, therefore, is two-fold: (1) to test for sensitivity biases in a typical sex in avertising experimental design and (2) to develop (and test) an experimental technique capable of reducing sensitivity bias in self-report responses to sensitive inquiries. In the first section of this paper, I review several studies which compare physiological to self-report measures of arousal. Then, using a standard experimental design for sex in advertising, I use a bogus verification manipulation to test the accuracy of self-reports of arousal and as a test of the viability of the experimental technique as an accuracy enhancer in future research on sensitive subject areas. The bogus verification manipulation[2] uses the implication of a physiological verification--a polygraph in this study--to improve the accuracy of self-report responses to sensitive questions (see Lowe, Windsor, Adams, and Morris 1986 for an earlier use of this technique).

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[1] Although the two measures were not explicitly compared in the Belch et al. article, a review of the published data shows strong differences between the two measures of data (Baron 1981). Unfortunately, Belch et al. no longer have the raw data necessary to perform formal tests.

[2] In his review of the accuracy in self-report literature, Osberg (1989) notes that verification of responses is an important determinant of accuracy when the inquiry is of a sensitive nature.

Self-Reports and Physiological Measures

In an interesting study, Belch et al. (1981) used a physiological measure of arousal (electrodermal response) and a cognitive measure consisting of semantic differential scales from Thayer's (1978) arousal (activation-deactivation) scale. Interestingly, self-report and physiological responses were incongruent. The widest disparities were among males in same sex (model and receiver) responses to ads with nudity. Similarly, in a study of female arousal, Wincze et al. (1977) used an intra-vaginal photoplethysmographic device to measure arousal and compared this to self report measures of arousal. This experiment was admittedly deficient in power, using only six subjects. Nonetheless, this study found no significant correlations between the two measures. Moreover, five out of six subjects reached maximum arousal (physiological measure) while viewing a group sex scene, but none of the subjects reported this on the self report measure. The level of stimulation in the Wincze et al. (1977) study, however, goes way beyond anything marketing researchers are interested in. It is very hard to compare explicit group-sex scenes to a scantily clad or nude model in an advertisement. Nevertheless, Wincze et al. (1977) demonstrates that self-reports of arousal are subject to sensitivity bias. Since virtually every sex in advertising study asks subjects to self-report arousal, or some similar construct, the Belch et al. (1981) and Wincze, Hoon, and Hoon (1977) findings threaten to discredit much of the research in this field. Similarly, the literature in marketing research casts doubt on the accuracy of self reports in situations where researchers probe sensitive areas like respondents' feelings about sexuality (Parasuraman 1990). Experiments that require subjects to self-report arousal from sexual depictions or innuendoes certainly appear to be susceptible to sensitive issue response bias.

A Test of Sensitivity Biases in Response to Sensitive Probes

Research on the efficacy of sex in advertising necessarily delves into sensitive areas. Subjects' response bias might obfuscate the effects of the variables and lead to misleading findings. Researchers would be interested in knowing the nature and extent of sensitivity bias and techniques for reducing that bias. Therefore, the purpose of this experiment is to test for the presence of sensitivity bias on self-reports of arousal when confronted with sexy ads, to improve our understanding of the nature and extent of that bias, and to suggest a technique for reducing bias. The first set of hypotheses tests the theory that the disparate findings in the Belch et al. (1981) and Winzce et al. (1977) resulted from subject dishonesty. According to this theory, the subjects deliberately misstated their level of arousal when confronted with advertisements with nudes. On the other hand, when the inquiry is non-sensitive, there should be no consistent dishonesty. Little theoretical evidence exists to explain why subjects may exhibit manifestation of sensitivity bias in queries about their own arousal when confronted with sexual stimuli and not exhibit sensitivity bias questions about the offensiveness of sexual stimuli. However, the empirical data from Belch et al. (1981) supports this hypothesis.

H_1 Subjects don't accurately self-report their level of arousal from sexy advertisements.

H_2 Subjects will give accurate responses about a non-sensitive issue like offensiveness (when confronted with a sexy ad).

The second set of hypotheses concerns the efficacy of using a verification technique to get more honest responses to sensitive inquiries. Theoretically, subjects who are told that their answers will be verified by post-test polygraph examination will give more honest responses, but only if the inquiry is sensitive.

H_3 The groups that undergo the verification manipulation will give more accurate responses to sensitive inquiries (arousal when confronted with a sexy ad).

H_4 The verification manipulation will have no effect on a non-sensitive inquiry (offensiveness when confronted with an ad).

Method

Subjects

Subjects for this experiment are 37 undergraduates (18 males and 19 females) taking a Marketing Principles course at a large Southeastern university. The requirement to participate is at least nominally optional. Students received extra credit for participation in the study.

Independent Variables

The basic design was a two-by-two factorial, treatment condition by gender. Subjects were randomly assigned (within gender) to two groups. Gender was included as a blocking variables because the sex in advertising literature contains numerous examples of differential and interactive effects by gender (c.f. Goldsmith and Freidan 1988; LaTour, Pitts, and Snook-Luther 1990; Petersen and Kerin 1977). The experimental manipulation involved an experimental group (Bogus Pipeline) who were told that they would have to submit to a polygraph verification of their responses while the control group (Control Pipeline) was merely asked to respond honestly. Osberg (1989) in a review of accuracy in self-reports literature argues that subjects who feel their self-reports are subject to verification will give more accurate responses. The technique used in this study was developed by counseling psychologists who felt that inaccurate self-reports of addictive behaviour would hamper their attempts to combat drug abuse by pregnant women. Windsor, Morris, Cutter, and Lowe (1989) compared the self-reports of smoking behaviour among pregnant nicotine addicts to physiological measures (saliva thiocyanate values). They found that self-reports of tobacco use were inaccurate. In a study of alchol consumption among pregnant women, Lowe et al.

(1986) randomly assigned 220 pregnant women to two groups. One group was told that their self reports would be verified by urine tests (bogus pipeline) while the other group received no verification instructions (control pipeline). The results suggest that un-verified self-reports are not accurate and that the bogus pipeline technique has the potential to enhance the accuracy of self-report responses to sensitive inquiries.

Dependent Measures

The study used 6 dependent variables. Three advertisements were rated on two dimensions, Arousal When Confronted with the Ad (hereafter $Arousal_A$) and Offensiveness. Table one describes the ads, and table two shows the actual items used to measure $Arousal_A$ and Offensiveness. The items in the $Arousal_A$ measure are derived from the arousal dimension of Zaichowsky's two-dimensional Involvement scale. The items chosen are commonly used to measure arousal in sex in advertising formats (c.f. Belch et al. 1981; Goldsmith and Freidan 1986; LaTour, Pitts, and Snook-Luther 1990). The items used to measure offensiveness were derived from other studies which tried to measure the offensiveness of sexy ads (c.f. Belch et al. 1981; Goldsmith and Freidan 1986). Separate factor analyses of both scales using the Eigenvalue > 1 extraction method resulted in one-factor solutions. Cronbach's alpha coefficients were .9041 for Offensiveness and .9322 for $Arousal_A$. Both scales used reversed ordering to eliminate aquiescience bias. Both scales were anchored on a 1 to 7 scale with 7 indicating maximum arousal on the $Arousal_A$ scale and maximum offensiveness on the Offensiveness scale. As expected the Pearson's correlation between offensiveness and $Arousal_A$ was positive (.56) (higher arousal ratings are associated with higher offensiveness ratings).

Procedure

Subjects were randomly assigned to one of two treatment conditions, (but with approximately equal numbers of each sex in each group). A sign-up sheet was passed around and students put their name and social security number on the sheet. They were told that the sign-up sheet would be used to verify their presence (they received extra credit for participation). The experimenters gave the following instructions to each group.
"Today, we're going to look at and rate some ads. All respondents are guaranteed anonymity; do not put your name on the answer sheets. This is an extremely important experiment, so please answer all questions honestly. While we care what you think, we don't want you to influence the other participants, so please keep quiet during the experiment. If you have any questions, please raise your hand."

The bogus pipeline cells (male and female) were then given the following instructions. "In order to verify your answers, a lie detector specialist from the University of XXX will be here all this week to administer polygraphs. He won't ask you what your actual answer is--only if your answer was truthful. For instance, you will be viewing some cologne ads. The polygrapher won't ask you how you actually rated the ad--only if you answered the question truthfully. The polygraph exam will only take about 20 minutes. I'm going to pass around a sign-up sheet now; we'll try to be flexible about the time schedule." After the sign-up sheet had been passed around, the experimenter's assistant asked the experimenter where the polygraphs would be administered. As the experimenter responded, "the behavioural lab in room 219 of the business building," both the assistant and the experimenter noted that virtually

TABLE 1

Ad # 1, Bonjour: This ad depicts a man with a day's stubble passionately kissing a woman's neck. The woman's neck is thrown back and her demeanor is passionate. She appears to be pushing the man's head downward--towards greater rewards.

Ad # 2, Obsession: This ad shows a rear shot of a well-muscled, nude man carrying a nude, supine female easily across his shoulder. Though her body is limp and her eyes closed, her hand is stretching for his lower extremities.

Ad # 3, Diesal: A man and a woman, both nude from the waist up, are embracing under the cover of a blue jean jacket. The focus of the picture is the chest on chest area.

TABLE 2

The ad is:

unexciting	____	____	____	____	____	____	____	exciting
activating	____	____	____	____	____	____	____	sleep inducing
uninteresting	____	____	____	____	____	____	____	interesting
fascinating	____	____	____	____	____	____	____	mundane
uninvolving	____	____	____	____	____	____	____	involving
appealing	____	____	____	____	____	____	____	unappealing
offensive	____	____	____	____	____	____	____	unoffensive
proper	____	____	____	____	____	____	____	improper
appropriate	____	____	____	____	____	____	____	inappropriate
well suited	____	____	____	____	____	____	____	unsuitable
objectionable	____	____	____	____	____	____	____	unobjectionable
unacceptable	____	____	____	____	____	____	____	acceptable

everybody in the room wrote down the room number. Although this was the only formal manipulation check, the experimenter then spent several minutes talking about the types of machines used and reassuring subjects that the procedure was painless. The purpose was to create an aura of authenticity which would enhance the probability that respondents would take the manipulation seriously.

After the instructions were given, a second sheet was passed around upon which students were asked to anonymously write down their GPA. Though subjects did not put their name or social security number on this sign-up sheet, responses were not completely anonymous since the sheet was passed from person to person. The purpose of this will become apparent later.

Slides of 6 print ads were then shown. Three of the ads were sexually suggestive ads and three demure ads were mixed in order to allow students to return to non-baseline state.

Results

A standard sex-in-advertising study would first ask respondents to rate the arousality and offensiveness of various ads. These ratings would then be used as independent variables and variables like attitude towards the ad, attitude towards the marketer/manufacturer, purchase intentions, recall of the ad, and recognition would then be regressed upon the ratings of arousality and offensiveness. Since standard assessment techniques like regression and analysis of variance assume zero error in the independent variables, researchers should be interested in knowing whether ratings of arousality and offensiveness are subject to systematic biases.

Fearful of inflating type two error by using a too restrictive α, the threshold of significance was set at $\alpha = .10$ for all tests. Table 3 contains a list of power ratings at $\alpha = .05$ and $\alpha = .10$ for all nonsignificant findings.

TABLE 3

Power

	$Arousal_A$		Offensiveness	
	α=.05	α=.10	α=.05	α=.10
Treatment	.26	.38	.10	.17
Interaction	.54	.67	.39	.53

*Significant at α = .05

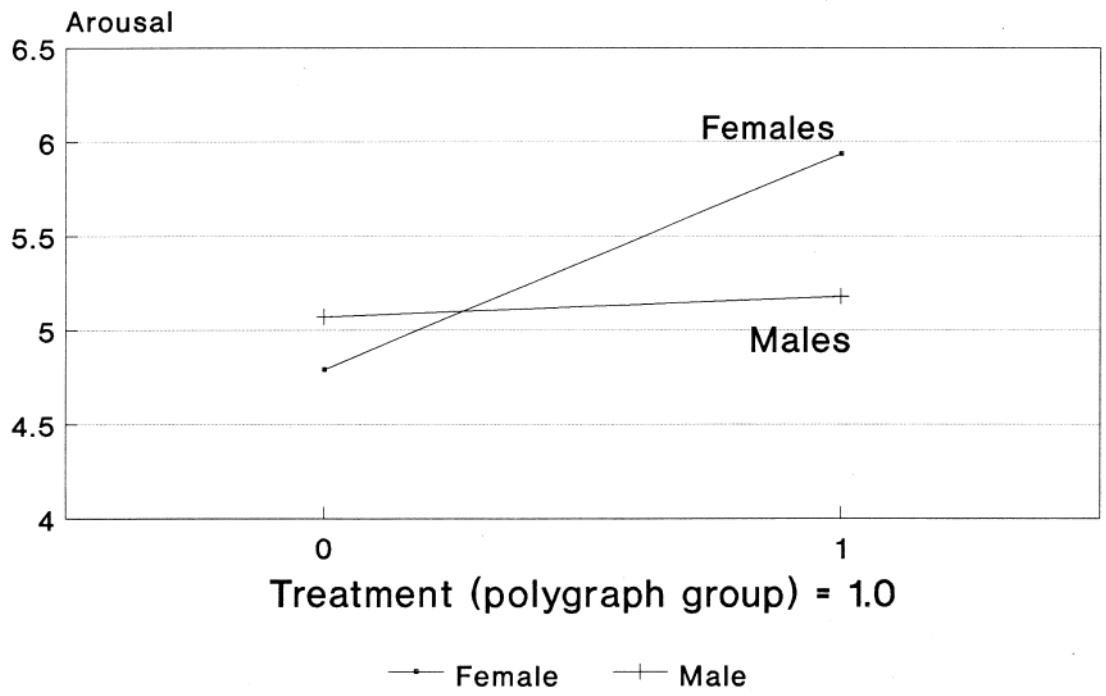
In this study, separate three dependent variable by two independent variable MANOVA's were run for Offensiveness and $Arousal_A$. MANOVA assumes normality, homogeneity of variance on all univariate comparisons, and homogeneity of the variance-covariance matrices across all cells. For both Offensiveness and $Arousal_A$ the normal and detrended plots showed no signs of violations of normality.

For Offensiveness the three univariate tests of homogeneity of variance were all non-significant (Bartlett-Box at DF 3,1916 Pvalue < .98 for the Diesal ad, .98 for the Vanfair ad, and .77 for the Obsession ad). Box's M test for homogeneity of the variance-covariance matrices, however, was significant (DF 18,3533, Pvalue < .09). The determinants of the control pipeline cells were especially atypical [determinant = 2.56 (female/control pipeline), 1.37 (female/bogus pipeline), .12 (male/control pipeline), and 1.19 (male/bogus pipeline). Despite this violation, though cognizant of its potential to lead to invalid inferences, I continued with the MANOVA analysis using Pillai's trace for hypothesis testing. Gender was the only significant variable (Pvalue < .085). Both the interaction between treatment and gender and treatment were non-significant (Pvalue < .194 and .837, respectively).

For the $Arousal_A$ variable, Box's M test for homogeneity of the variance-covariance matrices was non-significant (DF 18,3533, Pvalue < .14). However, the univariate tests of homogeneity of variance was significant for one of the three ads (the Obsession ad; Pvalue < .04). This violation was due to different variances among males and females. The standard deviations were .698 (control pipeline) and .615 (bogus pipeline) for females and 1.514 (control pipeline) and 1.032 (bogus pipeline) for males. Because the other assumptions were met and the one violation was due to differences in the blocking variable (gender), I continued on with the MANOVA analysis.

MANOVA analyses with more than two independent variables begin with a test of the interaction because the main effects are often not meaningful when interaction is significant (Stevens1986). The figure shows the statistically significant interaction between gender and treatment (using Pillais thrust, DF 3,36, F = 2.36 Pvalue < .091). Overall, for males the mean of the $Arousal_A$ means for the two treatment cells were fairly consistent (5.07 for the control pipeline and 5.18 for the bogus pipeline). However, for females the mean of the $Arousal_A$ means for the bogus pipeline group (5.81) was much higher than that of the control group (4.76). The results indicate that for males the polygraph verification had little effect on their ratings of $Arousal_A$, but for females the verification technique resulted in higher--and apparently more honest--ratings of arousal when exposed to ads with sexual connotations.

An additional test was included to make certain that the verification group gave more honest answers. As noted earlier, students were asked to semi-anonymously write down their GPAs, ostensibly as a control variable in the study. Because the literature suggested that anonymity is an important determinant of the honesty of self-report responses (Laing 1988; Osberg 1989), the researcher deliberately set up a situation where dishonest responses might occur. The mean GPAs for the two groups were then compared with the actual GPAs (obtained from the university registar's office). The bogus pipeline group overstated their actual GPA by .23 of a point on average (on a 0.0 to 4.0 scale) while the control group overstated



their GPA by .45 of a point on average, a difference significant at α = .03. Thus, the verification manipulation clearly resulted in more honest responses.

Discussion

Females in the bogus pipeline gave more accurate self-reports of arousal. Thus, H_1 was confirmed, though only for females. The verification technique had no effect on self-report ratings of offensiveness. Accordingly, H_2 was confirmed.

One of the stated purposes of this paper is to propose and test a verification technique (bogus post-test polygraph) which would aid researchers in their attempts to get honest self-report responses to sensitive inquiries. Even under optimum conditions (anonymity) there was some evidence that the suggested verification technique works for some subjects (females in this test), and there was strong evidence that the technique works under sub-optimal conditions (semi-anonymity). Thus H_3 was at least partially confirmed. The verification technique did not work when the inquiry was not sensitive. Hence, H_4 was confirmed, though power was admittedly low.

References Available Upon Request

A PARSIMONIOUS VERSION OF THE PERSONAL INVOLVEMENT INVENTORY

Banwari Mittal

Abstract

Zaichkowsky's (1985) personal involvement inventory (PII) is scrutinized both conceptually and empirically. Exploratory and confirmatory factor analyses of consumer response data are utilized to test the underlying structure of PII. A 7-item subscale is excerpted from PII on a priori grounds, and is shown to have greater internal consistency than the 20-item PII. And validation against selected external criteria shows that the 7-item parsimonious scale does as well as the 20-item original PII.

INVOLVEMENT INVENTORY

In 1985, in JCR, Zaichkowsky presented the Personal Involvement Inventory (PII), a scale designed to measure consumers' involvement in products and purchase tasks. The consumer research literature had previously lacked a systematically developed scale of involvement, so the publication of PII served to fill this void. However, two characteristics of PII are bothersome: (1) The scale is fairly long, particularly for multi-product applications; and (2) McQuarrie and Munson (1987) have raised some questions about the conceptual unity of the scale, arguing that the scale confounds involvement proper with other related constructs such as attitude. The purpose of this paper is to subject PII to a scrutiny, both conceptual and empirical, in order to achieve both greater conceptual unity and parsimony. Specifically, we seek to delineate a subset of P11 items which may more efficiently measure involvement.

The Involvement Construct and A Review of PII Items

Zaichkowsky (1985) defines involvement as a "person's perceived relevance of the object based upon inherent needs, values, and interests." Her PII scale measures it by a set of 20 semantic differential items (e.g., important/unimportant, relevant/irrelevant, etc.). Regarding the factor structure of PII, she reports that "the general pattern of results showed one main factor and (usually) one minor or residual factor for every product category" (1985, p. 348). In a subsequent paper, she reported the emergence of two factors for each of the two products analyzed. McQuarrie and Munson (1987) also found two factors in their own data, thus reinforcing the need for a re- examination of the structure of PII. Below we describe the involvement construct formally, and then proceed to identify those PII items which would appear to operationalize the construct more coherently.

The Involvement Construct. Although many definitions of involvement exist, it is agreed that consumer involvement means consumer interest in the object (see Kassarjian 1978, Mitchell 1979, Cohen 1983, Bloch and Richins 1983, and Celsi and Olson 1988). That is, a consumer involved in a product or activity is interested in that product or activity, whereas an uninvolved consumer is indifferent or uncaring.

This view of involvement is compatible with the definition employed by Zaichkowsky (1985): Involvement is "a person's perceived relevance of the object based upon inherent needs, values, and interests" (emphasis added). It follows from these definitions that involvement can be measured, quite simply, by semantic differential scales which are anchored by such items as "of no interest/of interest" and "irrelevant/relevant." Indeed, Zaichkowsky's PII consists of these two (one exact and one similar) items and 18 others. The question is, which of the other 18 items come closest to reflecting the same construct as the "irrelevant/relevant" and "of no interest/of interest" items do?

An item can be related (or unrelated) with another in either a tautological or a nontautological way. Any two items are tautologically if one cannot be explained in terms of the other. For example, "Object 'X' is 'rele-vant' because it is of 'interest'" would be a tautological statement. Multiple operationalizations of the same construct must be tautologically equivalent. We suggest that only 5 other PII items are tautologically equivalent to the 'relevant' and 'interested' items of PII. These 5 items are: 'important', 'significant', 'matters', 'means a lot', and 'of concern' (see Group I in **Table 1**).

The remaining 13 PII items are considered tautologically unequivalent to the aforementioned 7 items; they are thus considered extraneous to involvement. We have placed them in Group II, and have further loosely categorized them in subgroups IIA, IIB, and IIC. Group IIA has four items which reflect a hedonic factor. The hedonic factor is an antecedent to involvement, and not involvement itself. An object can be relevant or of interest, i.e., involving despite not being hedonic (e.g., headache remedy for chronic headache sufferers). The statement that "Object 'X' is relevant and of interest because it is 'exciting'" is not tautologically redundant, because an object's perceived relevance is not universally dependent upon its quality of being exciting.

Table 1

SUGGESTED FACTORS IN THE PII SCALE

Group I	Group IIA	Group IIB	Group IIC
Involvement	Hedonic	Attitude	Need
Important/ unimportant (1)*			
Irrelevant/ relevant (3)	Boring/ interesting (13)	Useless/ useful (5)	Trivial/ fundamental (7)
Uninterested/ interested (10)	Unexciting/ exciting (14)	Valuable/ worthless (6)*	Vital/ superfluous (12)*
Of no concern/ of concern to me (2)	Appealing/ unappealing (15)*	Beneficial/ not beneficial (8)*	Essential/ Nonessential (17)*
Means a lot to me/ means nothing to me (4)*	Mundane/ fascinating (16)	Undesirable/ desirable (18)	Not needed/ needed (20)
Matters to me/ doesn't matter (9)*		Wanted/ Unwanted (19)*	
Significant/ insignificant (11)*			

Note: 1. Numbers in parentheses are sequence numbers in the original scale.

2. The re-allocation of items to 4 proposed groups is by the present authors (see text).

3. All items that needed to be reverse-scored (marked *) were reverse scored in all the analyses reported hereafter.

Items in Group IIB are seen as measures of "attitude" rather than of involvement. Valuable/worthless was an item in Osgood, Suci, and Tannenbaum (1957) and it loaded on their evaluative factor. 'Harmful/beneficial' was an attitude item in Fishbein and Raven (1962). Although Zaichkowsky modified this bipolar item to unipolar 'not beneficial/beneficial', such modification merely truncated the concept it measures, namely, 'attitude'.

Finally, items in Group IIC reflect a "Need" factor. The attributes captured by these items may well make an object involving, but there need be no one-to-one correspondence between these items on the one hand and involvement on the other. In fact, most consumers would not consider most of the staple products (e.g., soap, salt, water and electricity) as involving, and yet they would rate these products highly on "essential," "needed," and "vital" items of Group IIC.

Note that the placement of items in subgroups IIA, IIB, and IIC need not be perfect because to measure these other constructs is not our goal. Indeed, these other constructs may well be better measured by some other items (e.g., attitude by good/bad); our point only is that these items tend to reflect these other constructs more than they do involvement. Nor need we worry about whether we may have excluded an item with less than total justice. Our objective is to delineate a smaller scale (of say 5 to 7 items) whose items show greater conceptual unity; we have therefore excluded items which seemed to be confounding involvement with other constructs, and we have preferred to exclude them even if the case for their exclusion was not totally unprejudiced. Below, in the empirical research, we seek to demonstrate that (a) the 4 groups of items in Table 1 are distinguished from one another, (b) the 7-items in Group I (termed involvement) are internally consistent, and (c) the internal consistency is "spoiled" by the addition of the items from the other 3 groups.

Method

Data. The data for this study came from a survey of 130 consumers (all students) who filled in the PII inventory for two products, beer and detergent. These products were chosen so as to afford: (a) respondent familiarity, (b) moderate mean involvement (not too low as for facial tissues, and not too high as for cars), and (c) a good range of involvement. In particular, we sought to include one hedonic (beer) and one non-hedonic (detergent) product. The entire inventory was assessed for the product class, and in a different section, for the brand-decision task (e.g., beer brand-decision for me is: Unimportant/important). Product usage was not employed as a screening variable; 20 respondents reported being nondrinkers of beer and 21 did not do their own laundry. Where material, separate analyses will be reported for the user and 'total' samples.

For validation purposes, an alternative measure of involvement was included. Three Likert scales (1-Strongly agree, 7-Strongly disagree) were used to measure product involvement: "I have a strong interest in ---," "--- is very important to me," and "For me, --- do not matter." These are borrowed from Laurent and Kapferer (1985). Similarly, 3 Likert scales to

measure brand-decision involvement were borrowed from Mittal and Lee (1987): "Which --- I buy matters to me a lot," "I would choose my --- very carefully," and "Deciding which --- to buy would be an important decision for me."

Because information processing is hypothesized in involvement literature to be an outcome of involvement (e.g., Beatty and Smith 1987), two questions were asked to measure this variable: In a new town where several brands of beer (detergent) are available but none of your usual brands, when buying beer (detergent), would you do no brand comparisons (1)/extensive comparisons (7), and would you consider no information at all (1)/consider extensive information (7).

Exploratory Factor Analysis. PII data were analyzed first via exploratory (to replicate Zaichkowsky's procedures) and then via confirmatory- factor analytic procedures. A point applicable to both analyses alike must be noted: Any two factors conceptually thought to be distinct may emerge as a single factor if those two factors happen to co-vary in certain stimulus objects. Therefore, data for several stimulus objects must be examined.

Table 2 presents the results of Principal Axis Factoring (with communalities in the diagonal of the correlation matrix) of the 4 data sets (2 products, 2 contexts-- product category and brand-decision). For the beer product class (users only), two factors with eigenvalues exceeding 1.0 emerged, with high loadings from the items of the 'hedonic' and 'need' item-groups respectively, and with the items of the other groups loading on either or both factors (see Set 'A'). For detergent product class data (Set 'B'), 3 factors emerged, with clear separation of "involvement," "attitude," and "hedonic" items (with some cross-loadings of two attitude items); items of the "Need" group had amorphous loadings on the 3 factors but none of them had a dominant loading on the first factor, which is the involvement factor. Turning to brand-decision data next, the all-respondent data for beer yielded only one factor (not in tables). The users-only data yielded two factors (Set 'C' in Table 2), showing a clean separation of "hedonic" and "involvement" items (while the items of the remaining two item-groups cross-loaded). Finally, for detergent brand-decision users-only data (Set 'D' in Table 2), three factors emerged, showing the separation of the 'hedonic' item-group from the other three item--groups. "Need" and "Attitude" groups merged as one, while the involvement items showed up as a separate factor. Because each item-group separated from the others in at least one of the four data sets presented in Table 2, taken together, these factor analyses demonstrate the separateness of the involvement item-group from the other three item-groups.

Table 2

Factor Analysis of PII with Oblique Rotation and PAF Method

PII Subscales	Set 'A' beer, product-involvement, users only N=110		Set 'B' detergent, product-involvement, all Ss N=130			Set 'C' beer, brand-decision involvement, users-only N=110		Set 'D' detergent, brand-decision involvement, users-only N=109		
	Factors		Factors			Factors		Factors		
Involvement	1	2	1	2	3	1	2	1	2	3
- Important	55	36	68			94				-77
- Of Concern	41	34	85			90				-88
- Relevant	41	52	64			87		25		-64
- Means a lot	44	40	93			76				-76
- Matters	31	65	87			86		45		-55
- (I am) Interested	77		41			43	49			-59
- Significant	24	66	73			69		94		
Attitude										
- Useful	47	42	42		43	44	44	72		
- Valuable		63	48		24	45	47	70		
- Beneficial		73			67	27	61	97		-29
- Desirable	80				66	40	48	31	27	-30
- Wanted	77				57	47	31	28		
Hedonic										
- Boring	82			78			86		69	
- Exciting	93			90			94		94	
- Appealing	82			70			58		60	
- Fascinating	69			73			93		86	
Need										
- Fundamental		79	27		42	32	44	80		
- Vital		95	31		43	36	48	69		
- Essential		86	36	33	42	46	37	67		
- Needed		67			76	48	31	68		
Eigenvalues	12.52	1.42	8.62	2.88	1.29	12.77	1.35	10.9	2.2	1.1
% Variance explained	63	7	43	14	6	64	7	55	11	6
Factor correlation	.74		.35 .61		.09	.71		.40 -.74		-.42

Note. Factor loading less than .25 omitted; decimal points from factor loadings omitted.

Confirmatory Factor Analyses. While exploratory factor analyses let "the data speak for themselves," confirmatory factor analyses enable statistical tests of hypothesized structures. Using the maximum likelihood estimation procedure within LISREL VI (Joreskog and Sorbom 1984), 5 models were tried for each data set: A four-factor model per Table 1 (Model 'A'); and the Model 'A' modified so that the Attitude subscale (Model 'B'), or the Hedonic subscale (Model 'C') or the Need subscale (Model 'D') is merged with the Involvement subscale. Thus, Model 'B', 'C', and 'D' is each a three-factor model. Finally, the fifth model-- Model 'O' (for "original")-- is simply the original 20-item, one factor model.

As a guide to reading Table 3, consider the detergent product class involvement data. The first column presents factor loadings and item errors for Model 'A'. The second column presents, all in one, revised loadings and errors for: the attitude subscale items for Model 'B', the hedonic subscale items for Model 'C', and need subscale items for Model 'D'. Thus, this column should be read as three unrelated parts. (Of course, the parameter estimates change for all other items, but these changes were often negligible.)

Table 3

Confirmatory Factor Analyses of PII Data For Various Factor Models

	Detergent: Product class involvement (all respondents)				Beer: Brand-Decision Involvement (users-only)			
	Model 'A'		Models 'B' 'C' or 'D'		Model 'A'		Models 'B' 'C' or 'D'	
	λ	θ	λ	θ	λ	θ	λ	θ
Involvement								
Importance	77	40			92	16		
Of concern	79	38			76	43		
Relevant	77	40	About		89	21	About	
Means a lot	77	40	the		80	36	the	
Matters to me	88	22	same		91	18	same	
(I am) Interested	70	50			83	32		
Significant	84	29			84	30		
Attitude			Model 'B'				Model 'B'	
Useful	77	40	72	48	85	27	82	33
Valuable	72	47	71	48	88	23	85	28
Beneficial	54	70	40	84	85	28	80	36
Desirable	69	52	59	65	82	32	81	34
Wanted	71	49	62	61	71	49	72	48
Hedonic			Model 'C'				Model 'C'	
Boring	79	38	38	85	88	22	74	45
Exciting	93	13	38	85	91	17	74	45
Appealing	71	49	41	83	73	47	74	46
Fascinating	75	43	40	84	84	29	70	52
Need			Model 'D'				Model 'D'	
Trivial	66	55	61	62	80	36	69	53
Vital	70	49	60	64	86	26	76	42
Essential	68	53	53	69	85	27	77	41
Needed	67	54	52	72	74	45	72	48
Phi for Model 'A'	82 41 25 79 89 07				90 72 89 82 89 78			
Chi-Square (DF) For Model 'A'	364.23 (164)				435.10 (164)			
'B'	411.20 (167)				510.89 (167)			
'C'	584.32 (167)				584.02 (167)			
'D'	415.03 (167)				507.68 (167)			
'O'	658.81 (170)				621.20 (170)			

Note 1. All decimal points omitted.
All factor loadings (λ) and item errors (θ) have significant t values (at $p \leq .05$) throughout.

Although the commonly used chi-square statistic is not significant for any of the models estimated in Table 3, this statistic depends on the overly restrictive assumption of multi-variate normality and it often is non-significant in much of the published research. More useful is the chi-square difference tests for comparison between alternative models. The simplest and a commonly used (e.g., Bagozzi and Phyllips 1982) test of a hypothesized discrimination between factors is the chi-square difference test between the separate versus merged-factor models. Models 'B', 'C', and 'D' are nested within Model 'A' with 3 degrees of freedom difference, and the chi- square values (higher values show poorer fit) for Models 'B', 'C', and 'D', all exceed that for Model 'A' by more than 7.82 (the critical value for 3 degrees of freedom at p=.05), supporting Model A's superiority over each of the other three. Of course, Model 'O' is the worst, and by a wide margin.

Additionally, we may examine the errors of individual items imported into the involvement subscale in relation to those of the host items (for the host items, pre-merger estimates are pertinent). For detergent data (see Table 3), 11 of the 13 "imported" items (the exceptions being "useful" and "valuable") show errors which: (a) are excessive in magnitude (exceeding .5, a cut-off value recommended by Fornell and Larcker 1982), and (b) far exceed the errors of the host items.

Of the several other data sets similarly analyzed, only one more (due to space constraints) is reported in Table 3. For beer, brand decision involvement users--only data (see Table 3): (a) the chi-square difference test supported the superiority of Model 'A' over Models 'B', 'C', 'D', and 'O'; (b) for all but two items (the exceptions were 'wanted' and 'appealing') the parameters-- loadings and errors-- deteriorated upon their import into the involvement subscale per Models 'B', 'C', and 'D'; (c) however, for 11 out of 13 imported items, the errors were of acceptable magnitude. Thus, for beer brand-decision data, while the other subscales are better off being kept separate from the involvement subscale than merged with it, the merging would not render the involvement scale unacceptable.

Factor intercorrelations (see phi-matrix in Table 3) show that the involvement subscale is quite correlated with the other subscales (with attitude, need, and hedonic subscales in that order). The attitude and need subscales were also highly correlated. The lowest and very small correlation was between the hedonic and need subscales (except for beer). Thus, Zaichkowsky did cull items which either reflected involvement (7 of them) or when they did not (13 of them), they reflected something close to (not distant from) it.

The incremental fit index (Bentler and Bonett 1980)

and shared variance (Fornell and Larcker 1981) were computed for: (a) the 7-item involvement subscale, (b) 12 item involvement and attitude together, (c) 11 items of the involvement and hedonic subscales together, (d) 11 items of involvement and need subscales together, and (e) 20 PII items. The incremental fit index for the 7-item (of involvement subscale) one-factor model was .92 for detergent product class, .96 for detergent brand decision, .95 for beer product class, and .96 for beer brand decision. Shared variance for these 4 data sets were .64, .73, .78, and .80, respectively (values above .5 are considered "good"). All these values deteriorated for the (b), (c), (d), and (e) scales described above in this paragraph.

Validation With External Criteria: Two variables were assessed to serve as external criteria. One was an alternative measure of involvement itself; the second variable was information search, measured as an index computed by averaging the two items (intercorrelation .79 to .85) described in the Method section. The first external variable affords a test of convergent validity and the second, of predictive validity.

For product involvement, the alternative measure and PII correlated .66 for beer and .42 for detergent; the alternative measure and the 7-item involvement subscale correlated .63 for beer and .43 for detergent. For brand decision involvement, the alternative measure correlated .83 (beer) and .82 (detergent) with PII, and .88 (beer) and .84 (detergent) with the 7-item involvement subscale.

Only brand-decision- (not product-class-) involvement is relevant as an antecedent to pre-choice information search. For beer, the correlation of information search was .72 with PII and 0.68 with the 7-item involvement subscale; for detergent, these two correlations were .73 and .72 respectively. Thus, from both convergent and predictive validity standpoints, the 7-item subscale does as well as the 20-item PII.

Discussion.

The correlations of involvement subscale with the other three were high, but this finding need not cast doubt on the separateness of the 4 subcales identified in **Table 1**. The high correlation between the 'involvement' and 'attitude' subscales, for example, has to do with the nature of these constructs and how they apply to the stimulus objects being rated. Objects that evoke a consumer's interest (i.e., are involving) are likely to also be evaluated favorably. Therefore, while we know attitude and involvement to be conceptually distinct, such a distinction may be hard to come by in empirical data when the object being assessed is a consumer product. This is because consumers choose products voluntarily; and only favorable products are chosen and become involving, and vice versa. We might more readily observe the hypothesized factor distinction for objects or activities which require involuntary participation, e.g., military draft, the seatbelt law, etc. (these may be high involvement issues for all, but invoke negative attitudes for some and positive attitudes for others). Likewise, for issues that entail opposite sides, e.g., the pro--choice versus pro-life debate.

In a similar vein, consumers' ratings on the involvement subscale and need or hedonic subscales may co-vary for many a product. To see distinctions among them, one would need to undertake a comparative analysis for say, daily necessity and non-necessity objects, and likewise between hedonic and non--hedonic objects. Our data furnished the last mentioned comparison: for beer the hedonic and involvement subscales correlated more (and the two factors tended to merge), whereas for detergent, they correlated less (and the two factors tended to emerge as separate factors).

It may seem strange to some readers that we would eliminate even the hedonic items which intuitively appear to so closely correspond with involvement (i.e., interest in an object). We maintain, as stated before, that hedonic factor is an antecedent to involvement and not involvement itself. An object or activity can be involving despite being low on the hedonic factor, because of say some social factor (e.g. Alumni fund drive), or utilitarian factor (e.g., headache remedy). Indeed, it may be possible to assess all these plausible antecedents by utilizing some of the 13 PII items (singled out for exclusion in this paper) and adding some fresh items, a la McQuarrie and Munson (1987). We pursue this line of enquiry in research in progress, but to dwell on it here would take us far afield. However, the need to recognize that hedonic items of PII tap an antecedent rather than involvement itself cannot be overemphasized.

In isolating the 7-item subscale, therefore, our goal has been to retain only those items which measure involvement as an overall, general quality-- the quality or capacity of the object to evoke a consumer's interest. It is unnecessary to burden such a measure with the specific qualities of the object (e.g., hedonic, social, or utilitarian) which engender this overall relationship between a consumer and an object. In most research studies, involvement is employed as a moderating variable, and it is construed as a unitary construct (as it should be). To assess involvement as a unitary construct, it is appropriate and sufficient to measure involvement as an overall quality. For such applications, the 7- item subscale identified here will eminently fill the bill. On the other hand, the 20-item PII will, because of its confounded internal structure, surely detract from theoretical precision. The 7-item involvement scale extracted from PII is therefore advanced here as a parsimonious and internally consistent measure of involvement.

References may be obtained by contacting the author.

EXPLAINING PHYSICAL EXERCISE BEHAVIOR BY ITS COGNITIVE ANTECEDENTS

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Abstract

The cognitive antecedents of exercising behavior are identified and used to explain the incidence, extent and regularity of physical exercise. Data from 183 adult residents of a U.S. city showed that outcome beliefs weighted by the evaluation of outcomes and employed in a compensatory fashion and perceived threat explained 30 percent of variance in the survey respondents' exercise behavior. Close to 40 percent of respondents did not exercise with any fair regularity, and social marketers concerned with increasing the general fitness levels of a population would find the results of this research helpful in identifying appropriate influence strategies.

EXPLAINING PHYSICAL EXERCISE BEHAVIOR BY ITS COGNITIVE ANTECEDENTS

In view of rising medical costs, people's preventive health care decisions are becoming an important focus of many research studies in the social science literature. Using a Health Belief Model first discussed by Rosenstock (1966), such preventative health care behaviors have been investigated as dental and general health checkups, dietary compliance, smoking, juvenile drinking behavior, and family planning behavior (Jaccard and Davidson, 1975; Schlegel, Crawford and Sanborn, 1977; Becker, Drachman and Kirscht, 1974). To our knowledge, however, physical exercise behavior has never been studied from the similar standpoint of the cognitive antecedents (such as the ones contained in the Health Belief Model) of behavior. Physical exercise behavior is worthy of such a study for several reasons: It affects general and long-term health rather than a specific aspect of it; it does not require medical intervention; it does not entail overcoming addiction or conditioned behavior (as, for example, in smoking); it is a regular, repeated behavior rather than one time action (as in flue inoculation). And, culturally, it is widespread in the U.S. today. This paper reports an empirical research purported to explain people's exercise behavior in terms of what people know, think, and believe about exercising.

Cognitive Antecedents

Two belief models, namely Fishbein's Behavioral Intention Model (Fishbein and Ajzen, 1975) and the Health Belief Model (Rosenstock, 1966; Becker and Maiman, 1975;Janz and Becker, 1984; Rosenstock, Strecher and Becker, 1988) were used as sources for developing the framework of cognitive antecedents. In the Fishbein Model, behavior is considered a function of intention to engage in that behavior. Intention is predicted by attitude toward the behavior. This attitude (A_{act}) is in turn a function of the sum of products of the outcomes of behavior and the evaluation of these outcomes

The Fishbein model in its extended form incorporates a subjective norm component as an additional predictor of behavioral intention. And the Health Belief Model contains a Cues to Action component. (In original formulation of the model, cues to action impacted directly on the perceived threat component; but Oliver and Berger (1979) suggest that cues to action more appropriately affect the likelihood of behavior directly.)

In excluding certain constructs of the two models in this research, the following considerations were influential. First, our respondents are already either exercising or not exercising. Since the opportunity to engage in the exercise behavior must have presented itself in the past continually, whatever intention to exercise might have once existed must have been converted into behavior (or alternatively must have itself been revised). In other words, intention, current behavior and near-future behavior must be a reflection of one another. Therefore, exercising behavior alone was measured in this research, not behavioral intention. Second, Cues to Action as a construct might be more influential in one-time act contexts (e.g., vaccination) than for repeated behavior contexts. One type of cues to action, for example, is information from personal and impersonal sources. Since exercise can be done without any technical knowledge and also outside of an institutional setting, the role of any such information sources as cues is unclear for the focal behavior of exercising. In regard to subjective norm, this component in Fishbein's model and cues to action component in Health Belief Model are not easily comparable. For these reasons, this research excluded these two constructs, and focused instead on the sum of evaluatively weighted beliefs ($\Sigma b_i e_i$) construct of the Fishbein model and "benefits minus barriers" and perceived threat constructs of the Health Beliefs Model.[1] **Figure 1** depicts the cognitive antecedents of exercise behavior being investigated in this research. Although the primary purpose in this research is to examine the cumulative explanatory power of all three constructs, the separate explanatory power of the constructs of each model will also be compared.

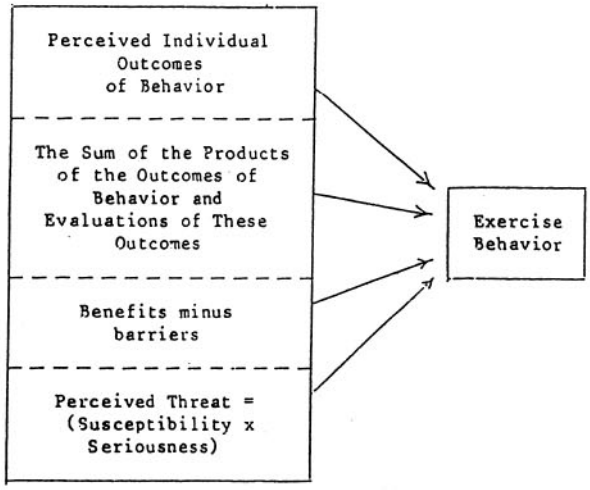
METHOD

Procedure

Data were collected through a mail survey of a random sample of residents in a Northeastern U.S. city. A total of 500 individual names were drawn from a city directory using systematic sampling of areas, streets, and then individual names. A questionnaire was mailed with a cover letter on a university letterhead. The cover letter identified the purpose of research as scientific and non-

[1]The research reported here is part of a larger data collection effort. The pragmatic consideration of questionnaire length also influenced the exclusion of subjective norm and cues to action constructs.

Figure 1



commercial, assured complete confidentiality and offered a chance to win one of the several cash prizes of modest amount upon return of the questionnaire within two weeks. A total of 183 questionnaires were returned and no follow-up was undertaken.

Measures

Preparatory to this research, the authors held informal discussions with several clients and instructors of two local health clubs on why people may or my not be exercising. From this informal research, a list of nine outcomes of exercising -- 5 negative and 4 positive -- were developed and used. These outcomes were: regular exercise -- a) is inconvenient, b) is time consuming, c) costs money, d) is tiring for the body, e) is an unpleasant experience, f) gives energy for work, g) keeps you from getting ill, h) tones up/shapes up your body, i) keeps you in good mental health.

These outcomes were rated on 5 point scales, anchored at each point by the levels of "not at all so," "somewhat so," "moderately so," "quite so," and "very much so." The evaluations of these outcomes were obtained separately for the positive and negative outcomes. The positive outcomes were evaluated on a not important/desirable (0), somewhat (+1), moderately (+2), quite (+3), and very important'/desirable (+4) scale. The negative outcomes were evaluated on a not undesirable at all (0), somewhat undesirable (-1), moderately undesirable (-2), quite undesirable (-3), very undesirable (-4) scale.

In accordance with the logic and procedure used by Oliver and Berger (1979), the nine outcomes measured above will also serve as measures of benefits minus barriers construct in the Health Belief Model. The two components of perceived threat were measured by these two questions: "Considering your health condition, would you say that if you did not regularly exercise, you are likely to develop any health problems (not at all likely -- 1, very likely -- 5)? And, "Would you say that if you did not regularly exercise, any health problems you may develop (due to not exercising) would be serious (not at all serious -- 1, very serious -- 5)?

Behavior

Respondents were asked to check 7 categories of exercise behavior: a) jog regularly, b) play sports, c) weight training work on exercise equipment, d) participate in aerobic classes, e) exercise at home, f) exercise in a health/fitness club, and g) own exercise equipment. The eighth category of "other (Please specify)" was filled by 78 (out of 183) respondents. These 78 responses were coded into nine categories by the researcher and his associate: 1) walk, 2) walk extensively, rapidly, 3) bike, 4) swim, 5) physical work, 6) any sports named, 7) more than one of the foregoing items 2 through 6, and 8) just keep moving around.[2]

A summary measure of behavior was computed as follows: each of the seven pre-specified categories (a to g, above) was given one point. From the open ended responses, the "walk" category and "just keep moving around" were given half a point each. The "more than one of the foregoing items" category was given 2 points; and the rest of the categories (viz., walk extensively or briskly, bike, swim, physical work, any sports) were given 1 point each. All of these points were then added so that respondents could get zero to nine total points. This total score was multiplied by the response score from another question: Do you consider your exercise pattern: casual (1) to very regular (5). The product was considered the behavior score, which could range from zero to 45.[3]

Analysis

First, the descriptive statistics of mean and standard deviation of and simple correlations among the behavioral criterion and independent (cognitive antecedent) variables were examined. (See Table 1.) The cognitive antecedents are: a) the individual nine outcomes of exercising (Z_1), b) the sum of the products

[2]Most of the coding was quite mechanical. The verbal material in most cases was the name of the activity itself, thus needing hardly any interpretation. It is possible, of course, that, for example, a few respondents might have simply written "walk" even though they meant "walked extensively, briskly."

[3]An incontroversial weighting scheme to which everyone would agree is almost impossible to devise. Our own logic is this: Almost everyone walks and moves around; unless the walk is brisk, it should be weighted less than any other exercise. More than one activity category should at least be valued twice as much as any other single activity category. Although, there may be double counting in such items as "exercise at home" and "own an exercise equipment," those owning an exercise equipment may be deemed as being more serious in their exercise. Likewise, membership in a health/fitness club (even though in some cases it may double--count "jog regularly" and "weight training") does imply a more formal, and therefore a more serious pattern of behavior. Although some double counting is inevitable, any other treatment of these categories will be just as arbitrary.

Table 1

Zero Order Correlations Among the Measured Constructs

	Z_1	Z_2	Z_3	Z_4	Z_5	Z_6	Mean	S.D.
Z_1 = Individual Outcomes (b_i^s)							-	-
$Z_2 = \sum_1^9 b_i e_i$							20.423	28.980
Z_3 = Benefits - Barriers		.898					1.200	1.284
Z_4 = Threat		.402	.337				8.079	5.433
$Z_5 = Z_2 \times Z_4$		.805	.708	.647			228.079	374.501
$Z_6 = Z_3 \times Z_4$		.762	.764	.710	.951		12.046	16.691
Behavior	.497+	.525	.437	.381	.528	.506	6.510	6.106

+Multiple R

All correlations are significant at $p \leq .05$.

of outcomes of behavior and evaluations of these outcomes, i.e., (Z_2), c) benefits minus barriers (Z_3), d) perceived threat -- a product of susceptibility and seriousness -- (Z_4).

Next, stepwise regressions were run with exercise behavior as criterion and several combinations of antecedent variables as independent variables. In Table 2, these regressions are identified by a regression number. Regression 1 regresses exercise behavior on individual outcomes. Regression 2 uses $\Sigma b_i e_i$ as the predictor variable. When compared with the results in Regression 1, this regression will show if the outcomes individually impact behavior and/or they impact in a compensatory manner. Regression 3 has "benefits minus barriers" (i.e., Σb_i) and "perceived threat" as the predictor variables. When compared with Regression 2, it will show whether the Fishbein's or the Health Belief Model fares better in explaining exercise behavior. Regression 4 and 5 respectively add "benefits minus barriers" and "perceived threat" to Regression 2's predictor variable.

Regression 6 uses all the three combined variables of the Fishbein and the Health Belief Model. The next 3 regressions use two interaction terms: interaction of perceived threat with "benefits minus barriers" and with $\Sigma b_i e_i$. Some researchers have viewed threat as an emotional component (Gochman, 1977); consequently, one could argue that the "benefits minus barriers" or $\Sigma b_i e_i$ are the more "cool-headed" assessment of a behavior and that these will influence behavior only when the threat is imminent. This can be tested by comparing the last three regressions with the earlier regressions. Table 2 presents all nine regressions: the standardized beta coefficients and their statistical significance, R^2 values, and stepwise ΔR^2 statistics are presented. The regressions pertaining to the nested models were compared using the F comparison tests.

Results

The criterion variable and all the predictor variables have substantial standard deviation, implying that the survey respondents varied greatly over all the variables of interest. Such large variation enables greater confidence in the generalizability of the results. The zero order correlations between predictor and criterion variables are all significant.

Table 2 furnishes the various regression results. A comparison of Regressions 1 and 2 shows that $\Sigma b_i e_i$ explains more variance than the set of individual outcomes. This implies that our respondents are using these outcomes in a compensatory manner. Next, $\Sigma b_i e_i$ explains 27.1 percent of the variance in exercise behavior, whereas "benefits minus barriers" and perceived threat explain just a little less (24.3%). See Regression 2 and 3. The stepwise regression in Regression 3 enters "benefits minus barriers" first with 19.1% variance explained. "Benefits minus barriers" construct is identical with $\Sigma b_i e_i$ construct except in that the former assumes that people consider all the benefits and costs of equal value. The regression results show that the respondents of our survey do not weigh the specified outcomes equally.

A comparison of Regression 5 over Regression 2 shows that perceived threat makes an additional contribution of 3.4 percent over that of $\Sigma b_i e_i$. On the other hand, Regressions 4 and 6 show that the "benefits minus barriers" construct does not make significant additional

Table 2

Various Regression Models (Behavior Regressed on Cognitive Antecedents) with Standardized Betas

Regression No.	Z_1	Z_2	Z_3	Z_4	Z_5	Z_6	R^2_{adj}	Stepwise ΔR^2 (In order of entry)†
1	$\beta * Z_1$						.205	
2		$.525Z_2^a$					.271	
3			$.348Z_3^a$ (1)**	$+ .263Z_4^a$ (2)			.243	.191 .061
4		$.688Z_2^a$ (1)	$- .181Z_3$ (2)				.273	.275 .006
5		$.443Z_2^a$ (1)		$+ .202Z_4^b$ (2)			.301	.275 .034
6		$.585Z_2^a$ (1)	$- .156Z_3$ (3)	$+ .198Z_4^b$ (2)			.301	.275 .034 .004
7		$.282Z_2^c$ (2)			$+ .300Z_5^b$ (1)		.298	.279 .028
8			$.187Z_3$ (2)	$+ .117Z_4$ (3)		$+ .286Z_6^c$ (1)	.254	.256 .006 .005
9		$.550Z_2^c$ (2)	$- .250Z_3$ (4)	$+ .095Z_4$ (3)	$+ .011Z_5$ (1)	$+ .199Z_6$ (5)	.301	.279 .028 .009 .004 .001

a) $p < .0001$; b) $p \leq .01$; c) $p \leq .05$

* Four of the nine outcomes have significant betas

** Step numbers are in parenthesis

† values are unadjusted

contribution over and above that of either $\sum b_i e_i$ or of $\sum b_i e_i$ and threat together. The "benefits minus barriers" and $\sum b_i e_i$ are highly correlated (.898) and the negative sign of betas for "benefits minus barriers" in

Regressions 4 and 6 indicate a suppressor effect. Comparing Regressions 5 and 7 shows that although interaction of $\sum b_i e_i$ and threat is significant and explains 27.9 percent of variance, it may be so due to the independent contributions of these two constructs rather than due to true interaction. This inference is drawn from two items: Regression 7 does not provide an improvement over Regression 5; and, in Regression 9 when threat is included by itself as well as in interaction with $\sum b_i e_i$, $\sum b_i e_i$ alone has a significant beta.

A review of all the regression models shows that Regressions 5, 6 and 9 have the same and the highest R^2 of .301. Of these, Regression 5 provides the most parsimonious model.[4]

[4]A modified behavioral criterion was computed assigning the same unit weight to all exercise categories (instead of .5 and 2 to some of the categories derived from the open ended responses), and then, as before summing these up and multiplying the sum by a casualty/regularity score. This modified criteria when regressed on the $b_i e_i$ and perceived threat yielded significant betas for both the constructs and an R^2 of 0.294.

Of the nine regressions in **Table 2**, only some are nested within one another. These nested models were statistically compared using "F" test. At $p \leq .05$, Regression Model 6 was significantly better than Regression Model 2 or 3. Regression Model 2 was also outperformed by Model 5 and Model 7. Model 9 outperformed Model 8. However, Model 8 did not do better than Model 3. And, Model 9 did not do better than Model 5 or Model 6. Thus, Model 5 and Model 6 are the best. These cannot be compared statistically, not being nested models. Model 6 has one additional variable which has a nonsignificant beta and it has the same R^2 as Model 5. Therefore, Model 5 is the most parsimonious model.

Discussion

The various regressions yielded R^2 ranging from .205 to .301. The 20 to 30 percent variance explained in exercise behavior is more than the variance explained in other behaviors found in other studies, but it is less than the variance explained in behavioral intentions found in other studies. The reasons for this are not difficult to stipulate. Behavioral intentions and beliefs about outcomes are both cognitive antecedents of behavior and therefore are likely to be more highly correlated than would be either the outcome beliefs or behavioral intentions with behavior.

On the other hand, in other studies reported in the literature, behavior was yet to occur, after the measurement of cognitive antecedents. Here, the behavior is already taking place, so that the behavior itself has had opportunity to feed back on the cognitive antecedents, bringing them more in line. Yet the highest correlation between behavior and any of the outcome measures is 0.373, so that we may assume that behavior and outcomes measures are not mirror images of each other.

Fishbein's model incorporates behavioral intention and attitude toward the behavior as more proximate antecedents to behavior. By conscious decision, we did not include these variables in our investigation. We focused instead on the outcome beliefs and their evaluations. This was for two reasons. First, because behavior is already occurring, an attitude report is likely to be confounded with a behavior report. Attitude would be a good construct to truly "predict" future behavior. But when measured contemporaneously, the two variables are likely to be so close to each other as to be redundant. Secondly, a possible attempt to change attitude would require an understanding of the informational basis of attitude. Our use of $\Sigma b_i e_i$ to "predict" behavior is equivalent to using $\Sigma b_i e_i$ as a surrogate measure of attitude. By explaining behavior directly from its outcome beliefs and their evaluations ($\Sigma b_i e_i$), we get a step closer to laying our hands on those variables which need to and can conceivably be impacted upon in order to obtain behavioral change.

Similar to Oliver and Berger's findings in the context of flu vaccine, our data show that Fishbein's model performs better than Health Belief Model in predicting exercise behavior. However, the Health Belief Model in turn performs better than a model where all the outcome measures (b_i^s) are used as individual predictors. These two findings together imply that respondents do not value all the outcomes equally and that they combine the weighted outcomes in a compensatory manner.

As we noted in the Analysis section, Regression 5 is the most parsimonious and explained the most variance. This is a regression of exercise behavior on $\Sigma b_i e_i$ and perceived threat constructs. Both predictor variables have significant betas. The perceived threat variable adds to the variance explained by $\Sigma b_i e_i$ alone, although not a whole lot.

At this point, it should be noted that the behavioral criterion used in the above analysis is not a simple "exercise/do not exercise" dichotomy. Rather, it reflects the extent and regularity of exercising. The behavioral score could range from 0 to 45. It ranged, for our sample of respondents, from 0 to 35, with only 5 (out of 183) respondents scoring above 20. 14 respondents (8%) scored zero, whereas 38 (20%) scored less than or equal to 1. A respondent could score as low as 1 only if s/he were to rate the casual/regular (1 -- 5) item as 1, indicating total casuality and were doing only 1 type of exercise. Indeed a score of 2 and 3 would also indicate quite some casual pattern of exercise, and a total of 76, i.e., 40% of the respondents scored below 3. Thus, although there are only a few people who did not exercise at all, of those who did exercise, about half did so only in a casual manner.

Marketing Implications

This research supports the thesis that people's cognitions about physical exercise behavior significantly influence the extent and regularity of exercising. Both the social policy maker and the local health club owner should view these findings with interest, yet the real question remains unanswered. How do these results translate into a marketing action plan?

Some of the alternative marketing approaches would include the following: (1) develop promotional plans to create awareness of the benefits or exercise; (2) inform both exercisers and non-exercisers of the potential threats associated with inactive lifestyles; (3) increase the information provided to current exercisers in order to formulate or fortify positive beliefs regarding exercise; and (4) design a marketing strategy that attempts to reduce the barriers associated with exercise-- that is provide the public with accessible, low cost exercise facilities.

Zaltman and Vertinsky (1971) have formulated a marketing strategy evaluation model based on the health belief model. These authors outline several marketing actions which can impact on the cognitive antecedents investigated in the present paper. By better understanding cognitions, marketers can design strategies that will potentially impact both exercise and non-exercise behavior.

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