PREMIER REFERENCE SOURCE

Valuing People and Technology in the Workplace

A Competitive Advantage Framework

Claretha Hughes

Valuing People and Technology in the Workplace:

A Competitive Advantage Framework

Claretha Hughes
University of Arkansas, USA

Information Science
REFERENCE

Managing Director: Lindsay Johnston
Senior Editorial Director: Heather A. Probst
Book Production Manager: Sean Woznicki
Development Manager: Joel Gamon
Development Editor: Myla Merkel
Acquisitions Editor: Erika Gallagher
Typesetter: Lisandro Gonzalez
Cover Design: Nick Newcomer

Published in the United States of America by
Information Science Reference (an imprint of IGI Global)
701 E. Chocolate Avenue
Hershey PA 17033
Tel: 717-533-8845
Fax: 717-533-8661
E-mail: cust@igi-global.com
Web site: http://www.igi-global.com

Library of Congress Cataloging-in-Publication Data

Valuing people and technology in the workplace: a competitive advantage framework / by Claretha Hughes.
p. cm.
Includes bibliographical references and index.
Summary: “This book provides a comprehensive framework that can be used to develop and design case studies that could measure the identified values that people, technology, and strategy can provide to the organization”--Provided by publisher.
ISBN 978-1-4666-0240-3 (hbk.) -- ISBN 978-1-4666-0241-0 (ebook) -- ISBN 978-1-4666-0242-7 (print & perpetual access) 1. Information technology--Management. 2. Employees--Effect of technological innovations on. 3. Employees--Training of. I. Title.
HD30.2.H836 2012
658.3’01--dc23

2011044980

British Cataloguing in Publication Data
A Cataloguing in Publication record for this book is available from the British Library.

For Karla Rosmon Banks

and

Eugene and Rosa Mae Hughes

Table of Contents

Section 2
Development Initiatives

Section 3
Values

Chapter 8

Chapter 9

Chapter 10

Chapter 11

Chapter 12

Detailed Table of Contents

of organizations within the context of organizational design and (2) Discuss how combinations of the perspectives can be beneficial to organizations that are striving to understand organizational theory and behavior to successfully compete.

Chapter 3
People as Technology..... 29

Chapter 3 introduces the concept of people as technology and describes technology development and people development within organizations. The relative value of people and technology is situational. Thus, competitive advantage and value are created from employee and technology development and the appropriate interaction of employee and technology within the organization. This chapter explores how these development initiatives may or may not relate to one another. The purpose of this chapter is to (1) examine some challenges of management to recognize similarities and differences between people and technology development, and (2) to leverage similarities and differences to create strategic advantage for the organization.

Section 2
Development Initiatives

Chapter 4
Cognitive Initiatives..... 42

Organizations that operate within the cognitive perspective use cognitive initiatives to develop people and technology within the workplace. The cognitive initiatives that are most popular in today's workplace are teaching, learning, procedures and processes, and motivation. These initiatives are used to accomplish effective execution of organizational goals. Teaching and learning are often combined, but in this book, they will be explored separately. The objective of this chapter is to discuss ways that organizations that focus on the cognitive initiatives of teaching, learning, procedures and processes, and motivation in the workplace can succeed in the competitive marketplace through its people and technology development.

Chapter 5
Behavioral Initiatives..... 60

Organizations that operate within the behavioral perspective often focus more on the technological impact within the workplace environment rather than employee roles. They have been accused treating people as if they are technology since the feelings and emotions of the individual are not valued. It becomes a matter of controlling employee behavior as opposed to understanding their behavior. The purpose of the chapter is to: (1) review behavioral initiatives and how technology has impacted the workplace environment; (2) employee behavior within organizational culture; and (3) examine how organizations that use the behavioral perspective align their people initiatives with their technological initiatives and goals.

Chapter 6
Cultural Initiatives..... 74

Organizational cultural initiatives are not limited to the internal culture of the organization but are influenced by the external culture within which the organization operates. Organizational culture is a

relatively new type of organizational analysis that is borrowed from the field of anthropology. Competitive organizations maintain their competitive advantage through their ability to effectively leverage high technology and people in the workplace. High technology and people do not exist in a vacuum. How has the environment or culture influenced the use of technology and people? The purpose of this chapter is to: (1) review the cultural initiatives including embedded in environment, adoption of cultural norms, leadership by inspiration, and evidence based management; and (2) present an analysis of issues and concerns related to managing people and technology in an environment that focuses upon a cultural perspective within the organizational process.

Section 3
Values

Chapter 7

Understanding that location value is a critical factor to organizations with regards to people and technology is what this chapter strives to achieve. Location value can be synonymous with power. It can represent power of position, power to generate revenue, power to leverage resources, and power to serve as a catalyst for change. As with any source of power, it has the ability to provide an asset or to be a liability. The location value of people and technology in the workplace can serve as asset or liability depending upon placement. Making the necessary realignments of people requires knowledge of their location value within the organization. This chapter addresses examples of technology location value, which includes capital expense, engineering expertise, and infrastructure changes against people location value, which includes cohesiveness in assigned environment, organizational culture, and career development. The author suggests that there seems to be reluctance on part of the organizations to fully commit the same resources for people location value as they do for technology location value.

Chapter 8

Use value relates to the quality factor in a worker's productivity. Use value requires integrity and a relationship of mutual respect between the organization and the employee. With regards to technology use, organizations seek alternative uses for these assets. Organizations must consider the multidimensionality of the person prior to hiring and plan to make adjustments as needed. Organizational needs must trump individual or group struggles. The purpose of this chapter is to: (1) introduce the concept of use value; (2) analyze and compare examples technology use value including the idea that it is often known before purchasing how a piece of equipment is to be used, process control, and strategic planning with examples of people use value including selection strategy, person-job fit, and job analysis.

Chapter 9

Employee maintenance value is expressed through training and development, and motivation. Training and education departments are crucial to maintaining and expanding employee effectiveness on the job. Individuals bring their own expectations into every situation. If their expectations are not understood up front, it does not matter how much communication or information they receive, the intervention will

not succeed. Maintenance value requires that the organization and the employee understand what formal knowledge the employee needs in order to perform his job so that in the end customers are satisfied with the product or service they receive. The purpose of this chapter is to: (1) introduces the concept of maintenance value, and (2) analyze and compare examples of technology maintenance value, including preventive maintenance systems and process, and investment in new tools with people maintenance value, including training and development

Chapter 10

Machines were expected to be maintained to the extent that they were capable so that organizations could retrieve the money that they spent to acquire the equipment. If modifications were conducted, they were done only to the extent that it was less costly than replacing the equipment. Modification of people within the context of the five values model is to look at how the person grows and changes not only through activities provided by the organization, but also activities that people use for self-development including education that may or may not align with their current jobs. The key for the organization is to understand that some employees want to grow and change and how do they adjust to these employees' need or convince the employees to adapt their new knowledge to the goals of the organization if feasible. The purpose of this chapter is to: (1) introduce the concept of modification value; and (2) compare technology modification value including upgrades to equipment, slight modifications, and investment to ensure value is derived from the piece of equipment to people modification value, which includes growth and change, job enrichment, and organization development.

Chapter 11

Within organizations, time is essentially equal to money; or is it? Should it be that employee output is equal to money as opposed to their time on the job? Time is an important resource that is often directed but not measured accurately relative to cost for the organization or the individual. Organizations also face issues related to the length of time employees choose to remain with the company, and/or they may employ downsizing/rightsizing strategies of their own. Time value is used to determine depreciation rates for technology and is easily reconciled from a cost perspective by employers. The purpose of this chapter is to: (1) present the concept of time value; and (2) analyze and compare technology time value including life span of equipment and depreciation of equipment expense with people time value including length of time in position and downsizing/rightsizing.

Chapter 12

Technology and people are present in all organizations. Effectively managing and developing people and technology is essential to enhancing competitive advantage for organizations. Strategic Human Resource Development (SHRD) is a relatively new and evolving field. This chapter explores the extent to which SHRD has the potential to tackle the challenges of integrating and enhancing the relationship between people and technology in the workplace.

Foreword

by David W. Robertson

An old client of mine who was a senior level manager of a large US based textile manufacturer located in Southwest Virginia (now out of business) used to jokingly say "…one day all that would be left inside his plant would be one person and a dog. The dog's job would be to guard the single remaining person to make sure that he or she did not get in the way of the computerized machines and robots that were doing all the work." Since I heard this statement almost two decades ago, I have witnessed, as both a business owner and salesperson, the impact technology has played within corporate America. There is no denying the fact that technology has, and will continue to be, the principle driver that fundamentally changes how businesses operate in this country as well as abroad. However, despite our need for continued investments in new technologies (i.e., competitiveness, efficiency, profitability, etc), there appears to be a growing disconnect with how we view workers in this transition to an information-based, knowledge-centered workplace. Sadly, it seems, like the comment made by my old customer, workers are all too often viewed as impediments to organizational progress versus a necessary ingredient to its success. It could be argued that there is a shrinking place for many of our workers in this 21st century, technology-obsessed environment. There is a partially misguided notion that technology is the main, if not only, ingredient required to solve the problems of the workplace. The reality is that people play an essential role in how technology is implemented and ultimately used to achieve positive organizational results.

There are some critical elements required for organizational success, which helps provide workers with the tools they need to contribute at maximum capacity to the goals and objectives of their employers. First, effective leadership is a must, as organizations require clear direction and follow through of their mission. Today's workplace is comprised of multigenerational workers from diverse backgrounds, thus sound leadership at every level becomes a game changer for the organizations that thrive versus those that struggle. Next, clear communication and sincere (side note: I emphasize *sincere* as many organizations give only lip service to this concept and instead desire to put in place excessive policies and controls thereby limiting independent decision-making) worker empowerment provide workers with the ability to harness the synergistic power of effective teamwork required to deliver the results in our competitive society. Finally, in order for workers to succeed in their roles, organizations have to place a premium on continuous training. Technologies change extremely rapidly as we all know, and the associated expense required to integrate new solutions and processes is high. Thus, not providing the appropriate employee training is tantamount to corporate negligence. In other words, it sets up the worker, and thereby the organization, for failure. Proper training, while time intensive and expensive, ultimately provides the best return on investment for new technologies.

In her new, thought-provoking book, Dr. Hughes provides an intriguing paradigm shift from which to view the relationship between workers and technology. She makes a compelling argument that these two entities are not mutually exclusive from one another and that workers themselves should be valued as much as technology. Additionally, she provides a functional model which serves as a guide to how organizations can work to achieve amazing results while at the same time providing their workers with meaningful training, enhanced skills, and ultimately increased motivation. As a business owner with over 22 years of experience, I know firsthand the importance of being competitive and the ever present need for continuous technological enhancements to remain viable in the marketplace. This book challenges conventional wisdom and provides a roadmap which we all can follow to make our organizations stronger.

David W. Robertson
Robertson Marketing, USA

David W. Robertson *has been a co-owner of a national promotional marketing firm, Robertson Marketing, for the past 22 years. He has developed extensive experience in sales development, customer relations, marketing strategies, incentive based motivation, leadership, and human resource management. In addition to his duties at his firm, David also maintains faculty membership within The Management Institute at Roanoke College which is a 10 weeks executive development program targeted for practicing business managers. David has also served as the Director for the Center for Leadership and Entrepreneurial Innovation (C.L.E.I) at Roanoke College. He has served as an adjunct faculty member at Roanoke College and has taught a variety of courses including Leadership, Team Dynamics, Organizational Behavior, and Marketing. He also serves on various advisory panels at Roanoke College.*

Foreword

by Merlin J. Augustine

The challenge of aligning people skills with different forms of technology has been a constant in human discourse for centuries. In fact, as early as the agricultural revolution, some form of optimizing human productivity was envisioned when the horse was tethered to the plow. The use of technology to enhance human performance was more progressively employed with the introduction of the industrial revolution. Frederick Taylor sought to design repetitive human movements to optimize factory line work. Henry Ford and other industrialists revamped the factory workforce and workplace with the view of successfully enhancing human productivity.

The technological revolution was inaugurated by the launch of Sputnik and President Kennedy's commitment to beat the Russians to the moon. More recently, during my tenure as a corporate board member in leading manufacturing company, I witnessed the employment of robotic and extremely advanced technologies that were unimaginable less than five years ago. Technology is indeed indispensable in maximizing productivity. However, without the proper training of humans to use it, technology's effectiveness would not have been maximized throughout the organization nor would it have had a positive effect on the bottom line. As recently as two years ago, one robot replaced 25 humans and produced 50% more without having to take one day off. Although the robots were effective, they required maintenance and modifications through constant human vigilance. The employees providing the maintenance and modifications were trained by the experts who designed the technology; proper training was essential to the success of introduction of robots into the workplace.

The past 50 years has ushered in an era of technological development that could once only be imagined in science fiction novels. During this period, the computer and Internet, along with massive technological innovations they inspired, such as global positioning systems (GPS), made it possible to instantly communicate throughout the world and find locations however remote. As startling as the technological developments over the last 50 years have been, according to Ray Kurzweil, a researcher in the field of technological advancement, it is the technological innovations of the next 50 years that are expected to be more dramatic. Dreaming of what can be more dramatic than a human on the moon communicating back to earth defies human imagination. Kurzweil emphatically provides a prediction that the technological progress over the next 50 years will be 32 times as fast and 32 times as great as it has been over past 50 years. The implications of these achievements are clear. Either society will be forced to find a comfortable balance between our human skills development and our technological prowess or may find itself being led by machines rather than humans employing the technology to enhance performance within the workplace.

The book *Valuing People and Technology in the Workplace: A Competitive Advantage Framework* affords researchers and practitioners insight into a world that at this point in time is not fully understood

by organizational leaders. In reality we must begin now to understand, design, and operate workplaces with the values of people and technology as described in this book. The workplace of the future requires a different approach to remain competitive. Futuristic corporate leaders and academic scholars, today, must be in a position to understand how to motivate people and value them within the organization when they are essentially not the central focus of the workplace that is envisioned over the next five decades.

To make work rewarding for the human person, while maximizing the use of technology in its fullest form, will be the greatest challenge facing corporate leaders in the second half of the twenty-first century. To imagine what work will be like, just think about a robot with artificial intelligence that can do almost everything from transplanting human organs, to designing motors, to reading blueprints, and organizing the workspace for maximum human performance without human intervention. Organizations will need to realign human resources to accommodate these fundamental changes. The fact is that these technologies exist at this very moment. Recently, the President of the United States challenged all Americans to shift from our quest of exploring the moon to exploring the planet Mars. As the quest for the moon spawned new technology, the quest for Mars will spawn technology not yet thought of. The question is will we be prepared for the discoveries of the future that awaits those who are making preparation for it? This book is a step in the right direction.

Merlin J. Augustine
University of Arkansas, USA

Merlin J. Augustine, Jr., *President and Founder of the M & N Augustine Foundation, holds a Doctorate from the University of Arkansas, a M. S. from the University of Central Arkansas, and a B. S. from Grambling State University. He did further study at the University of California, Los Angeles, Stanford University, and the University of South Carolina at Columbia. He has held numerous leadership positions throughout his career in secondary and higher education. He has served as Executive Assistant to the President, Executive Assistant Chancellor, and Assistant Vice Chancellor of Finance. He was appointed to numerous boards and commissions at local, state and national levels including the White House Commission on Children and Youth. He was also Chairman of the Board of the Arkansas Science and Technology Commission for eight years. He most recently served on the Board of Directors of Baldor Electric, a fortune 500 Company, for 10 years.*

Preface

This book introduces five values of people and technology development through the five point Hughes Value Creation Model for Organizational Competitive Advantage. The framework was derived from my 20 years of personal experience within high-performance manufacturing industries, academia, and consulting. The framework depicts opportunities for examining the similarities between technology development and human resource development and how these similarities can be used for value creation within organizations. The model provides a starting point to determine the extent to which location, use, maintenance, modification, and time value creation may be obtained from integrating technology development and human resource development from the cognitive, behavioral, and cultural perspectives (Hughes, 2010).

People as Technology (Hughes 2010) parallels the development of people to the strategic methods senior managers use to introduce new innovations and technology into their organizations. The concept of People as Technology introduces a more proactive, strategic approach to bring employees into and develop them within an organization. Interpreting and accepting this concept requires managers to think of employees as they would think of technology. Technology, equipment, and systems are strategically aligned within organizations. This concept asks managers to, also, strategically develop people throughout the organization so that they can be more successful and the organization will continuously improve.

People are considered the most valuable asset within an organization. How are employees shown that they are valuable to the organization? What are the best location, use, modification, and maintenance of their skills? What is the time value of an employee to the organization? People and technology both have location, use, maintenance, modification, and time value to the organization. How these values are managed determines the competitive advantage of the organization. A detailed explanation of the values and practical examples of their advantage to the organization will be provided.

THE CHALLENGES

Organizations are constantly trying to balance people and technology within the workplace. There have been numerous methods used and billions if not trillions of dollars spent to try and leverage the effectiveness of people and technology within the workplace to increase productivity and ultimately competitive advantage for the organization (Friedman, 1970; NAECBSS, 1991). In today's highly technological, globalized economy, it is essential that practitioners and researchers understand that people and technology do not exist in isolation of each other within the workplace. Intuitively, it is accepted that people and technology are intertwined within most operations; yet, objectively their value are not clearly known.

Kozlowski and Salas (2010) stated that "There are few or no comprehensive frameworks that help us understand how, why, and when particular individual differences are likely to promote learning" (p.4). The objective and mission of this book is to help leaders within organizations understand how they can value people similar to how they currently value technology within organizations. The purpose of this book is not to treat people like one would treat technology, but to assist with management intent and introduce a new paradigm of thought for leaders as they develop strategies to enhance productivity. Four key challenges are to determine:

1. The intention of management with regards to people and technology development within organizations.
2. The ways that managers currently value people and technology in the workplace.
3. The impact of development initiatives that align people and technology within the workplace.
4. The role of the cognitive, behavioral and/or cultural perspective of organizations' effect on its people and its technology.

Hatala and Gumm (2006) noted a twofold challenge for Human Resource Development (HRD) practitioners and researchers: 1) Provide training that meets the operational needs of the organization and 2) Ensuring the individual employee receives personalized training for the purpose of performance improvement and self-fulfillment (p. 229). Using the value creation framework will allow organizations to address these challenges.

The challenge of understanding the intention of management with regards to people and technology development within organizations relates to productivity standards and/or goals of the organization (Drucker, 1999). According to Oprah Winfrey, a key to her success when producing her show has been to begin and end with intention. Everyone must understand the intention of what needs to be done to be successful. Productivity occurs through the effective use of people and technology in the workplace. How do managers value people and technology? Is there a better way to value the location, use, maintenance, modification, and time of people and technology in the workplace? To what extent can development initiatives be enhanced by a more effective understanding of the value of people and technology? These are some of the questions that will be addressed within this publication.

The challenge of understanding how managers currently value people and technology in the workplace must be understood to assist organizations as they adjust to technological workplace changes. Change is a constant within organizations. The key is to understand how to adjust and adapt to change in ways that increase the competitiveness and success of the organization (Rogers, 2003; Schein, 1988; Welch, 2005). There have often been broad concepts used to try and understand people in the workplace. The list provided by High (1991) with regards to how to develop a human resource strategy for the people in the workplace is typical throughout many industries:

- Place heavy emphasis on the selection process for capability and skills
- Center around significant investment in in-house and developmental training
- Deemphasize organizational structure and titles
- Emphasize communication
- Allow people in the decision-making process, including pay and disciplinary action
- Create flexibility in employees' willingness and ability to handle different tasks
- Be contingent upon working in teams

- Hold individuals and teams accountable
- Be structurally flat
- Recognize and capitalize on the benefits of a culturally diverse work force
- Get everyone involved in developing approaches to work
- Emphasize that all work and all people are valuable to the company
- Provide similar benefits for all employees (p. 125)
- Although this strategy list may be beneficial, it does not address the value of the employee within the workplace. It leaves open the question of whether or not managers truly understand the value of the employee within the workplace.

The challenge of the impact of development initiatives that align people and technology within the workplace provides an opportunity for organizations to clearly identify and develop initiatives that clearly address organizational needs. This book focuses on people and technology and not the systems that have been developed to manage people and technology. It emphasizes the value of people and why they are the most important asset to the organization. They manage other people, technology, and development strategies. Many organizations work hard to incorporate new people and new technology into the workplace; however, the focus should be on all people and technology not just new people and technology introduction. All people should be valued regardless of the technology.

The challenge of understanding the role of the cognitive, behavioral and/or cultural perspective of organizations' impact on its people and its technology and valuing them within these contexts is fundamental to improving the competitive advantage of the organization. Increasing employee motivation and their alignment within the organizational culture (cognitive, behavioral and/or cultural) is also essential (Schein, 1988).

Cognitive theorists believe that a complete view of human behavior cannot be understood "without studying the internal mental and perceptual processes of specific individuals" (Gall, Gall, & Borg, 2007, p. 492). Determining and leveraging employees' cognitive perspective of their location, use, maintenance, modification, and time value within the organization can lead to needed development of teaching, learning, and motivational procedures and processes. Schmidt, Hunter, and Outerbridge (1986) showed cognitive ability as the single most important cause of job performance.

The behaviorist's tradition originated from Skinner's (1957) operant conditioning and has three basic assumptions about learning. They are:

1. Observable behavior, rather than internal mental events or verbal reconstruction of events, should be the focus of study.
2. Behavior should be studied in terms of its simplest elements, i.e., specific stimuli and specific responses.
3. The process of learning is behavioral change. That is a particular response becomes associated with the occurrence of a particular stimulus (Gredler, 2009, p.37).

Understanding employees' location, use, maintenance, modification, and time value to an organization from the behaviorist perspective may lead to a better understanding of technology's environmental impact on specific employee behavior within the organization.

Cultural researchers study the relationships that mediate experiences and realities with the contextualist/realist investigation of historical, social, and political structures of power (Bolman & Deal, 2008; Gall,

Gall, & Borg, 2007; Kontoghiorghes, 2004; Pfeffer, 1994; & Pfeffer & Sutton, 2004). Comprehending the influence of historical, social, and political structures on location, use, modification, maintenance, and time value of employees may provide: (1) An understanding of the culture that is embedded in the workplace environment; (2) How employees adopt cultural norms of the organization; (3) How leadership by inspiration is effective (Mintzberg, 1998); and (4) How evidence-based management practices are implemented (Pfeffer & Sutton, 2004).

The cognitive, behavioral, and cultural perspectives are important for defining the true value of employees and technology to organizations. Technology value is already an integral part of organizations' value chain and measurement procedures. Although there are perceived measures of employee value, this author hopes to more clearly define these measures. The following explanation of the five values of peoples and technology (location, use, maintenance, modification, and time) will be explained:

1. Location Value: Technology (Capital expense, Engineering expertise, Infrastructure changes) and People (Cohesiveness in assigned environment, Organizational culture, Career development)
2. Use Value: Technology (Often, it is known, upfront, ?how a piece of equipment is ?to be used before purchasing, Process control, Strategic planning) and People (Selection strategy, Person-Job fit, Job analysis)
3. Maintenance Value: Technology (Preventive maintenance ?systems and processes, Investment in new tools) and People (Training and development, Motivation)
4. Modification Value: Technology (Upgrades, Slight modification, Investment to ensure value is ?derived from this piece of ?equipment) and People (Growth and change, Job enrichment, Organization development)
5. Time Value: Technology (Life span of equipment, Depreciation of equipment ?expense) and People (Length of time in position, Downsizing/rightsizing)

SEARCHING FOR A SOLUTION

It is known from the management literature that the goal of organizations is to be successful within the marketplace in which they compete. Welch (2005) notes that "Winning companies and the people who works for them are the engine of a healthy economy, and in providing the revenues for government, they are the foundation of a free and democratic society" (p.4). This holistic view may not be popular but is necessary if organizations would like to successfully compete within the global economy. Revenue that is generated by organizations is valued by governments and society who benefit from that revenue. The amount of revenue is easily measured and appreciated; however, the contribution of the people who perform the work that generates the revenue is less understood and their value not truly known. Competition revolves around three key things in business: cost, quality, and service. Thus, the solution to valuing people and technology may be related to a measure of cost, quality, and service. Although this may not be quantifiably done with people, it is done with technology.

There has historically been a competition of either technology or people within the workplace. This need not be the case. Researchers who support strategic technology management (Betz, 1993; Snell & Dean, 1992) believe value is created through technology development while those in human resource management and economics (Becker, 1964) believe it is created through human capital investment.

Integrating the literature from strategic technology management, strategic human resource management, and human resource development and exploring how this integration can provide competitive advantage to organizations for better implementation of people and technology development initiatives is a potential solution. The opportunity of equivalence for the key connections between technology development and people development can only enhance the interactions that occur within the workplace. This book provides a comprehensive framework that can be used to develop and design case studies that could measure the identified values that people, technology, and strategy can provide to the organization.

ORGANIZATION OF THE BOOK

The book is organized into fourteen chapters. A brief description of each of the chapters follows:

Chapter 1 identifies the existing challenges in the management of people and technology within the global workplace. The chapter introduces the five point Hughes Value Creation Model for Organizational Competitive Advantage and sets the scene for discussion of the model concepts.

Chapter 2 establishes the need to understand organizations and the perspectives from which organizations develop their initiatives for performance. The author contends that the cognitive, behavioral, and/or cultural perspective is present within all organizations and can influence the productivity gains and competitive advantage of the organization.

Chapter 3 introduces the concept of people as technology and describes technology development and people development within organizations. This chapter explores how these development initiatives may or may not relate to one another. The author examines some challenges of management to recognize these similarities and differences and leverage them to create strategic advantage for the organization.

Chapter 4 reviews the cognitive initiatives including teaching, learning, procedures and processes, and motivation that play a role in the effective execution of organizational goals. The author discusses ways that organizations which focus on cognitive initiatives succeed in the competitive marketplace through its people and technology.

Chapter 5 reviews the behavioral initiatives including technology environmental impact and behavior within organizational culture. The author provides an analysis of how organizations that use behavioral perspectives align their people initiatives with their technological goals.

Chapter 6 reviews the cultural initiatives including embedded in environment, adoption of cultural norms, leadership by inspiration, and evidence based management. The author presents an analysis of issues and concerns related to managing people and technology in an environment that focuses upon cultural initiative on the organizational process.

Chapter 7 addresses the issues of technology location value which includes capital expense, engineering expertise, and infrastructure changes against people location value which includes cohesiveness in assigned environment, organizational culture, and career development. The author suggests that there seems to be reluctance on part of the organizations to fully commit the same resources for people location value as they do for technology location value.

Chapter 8 introduces the concept of use value and analyzes and compares technology use value including the idea that it is often known before purchasing ?how a piece of equipment is ?to be used, process control, and strategic planning with people use value including selection strategy, person-job fit, and job analysis.

Chapter 9 introduces the concept of maintenance value and analyzes and compares technology maintenance value including preventive maintenance systems and process and investment in new tools to people maintenance value including training and development and motivation.

Chapter 10 introduces the concept of modification value and compares technology modification value including upgrades to equipment, slight modifications, and investment to ensure value is derived from this piece of equipment to people modification value, which includes growth and change, job enrichment, and organization development.

Chapter 11 presents the concept of time value and analyzes and compares technology time value including life span of equipment and depreciation of equipment expense with people time value including length of time in position and downsizing/rightsizing.

Chapter 12 explores Strategic Human Resource Development (SHRD) and the extent it has for the potential to embark on the challenges of integrating and enhancing the relationship between people and technology in the workplace.

Chapter 13 explores how the five values can be used to expand performance and workforce interpersonnel diversity.

Chapter 14 concludes and presents competitive advantage examples and possibilities for organizations that value people and technology within the workplace.

Claretha Hughes
University of Arkansas, USA

REFERENCES

Becker, G. S. (1993). *Human capital: A theoretical and empirical analysis, with special reference to education* (3rd ed.). Chicago, IL: University of Chicago Press.

Betz, F. (1993). *Strategic technology management*. New York, NY: McGraw-Hill.

Bolman, L. G., & Deal, T. E. (2008). *Reframing organizations: Artistry, choice, and leadership* (4th ed.). San Francisco, CA: Jossey-Bass.

Drucker, P. F. (1999). Knowledge-worker productivity: The biggest challenge. *California Management Review*, *41*(2), 79–94.

Freidman, M. (1970, September 13). The social responsibility of business is to increase its profits. The New York Times Magazine, 32-33.

Gall, M. D., Gall, J. P., & Borg, W. R. (2007). *Educational research: An introduction* (8th ed.). Boston, MA: Pearson.

Gredler, M. E. (2009). *Learning and instruction: Theory into practice* (6th ed.). Upper Saddle River, NJ: Pearson Education, Inc.

Hatala, J.-P., & Gumm, J. C. (2006). Managing organizational cultural influences during the implementation of competency-based training. *Advances in Developing Human Resources*, *8*, 229–246. doi:10.1177/1523422305286154

High, J. C. (1991). Achieving excellence through people, technology, and teamwork. In NAECBSS (Ed.), People and technology in the workplace. Washington, DC: The National Academies Press.

Hughes, C. (2010). People as technology conceptual model: Towards a new value creation paradigm for strategic human resource development. *Human Resource Development Review*, *9*(1), 48–71. doi:10.1177/1534484309353561

Kontoghiorghes, C. (2004). Reconceptualizing the learning transfer conceptual framework: Empirical validation of a new systemic model. *International Journal of Training and Development*, *8*, 210–221. doi:10.1111/j.1360-3736.2004.00209.x

Kozlowski, S. W. J., & Salas, E. (Eds.). (2010). *Learning, training, and development in organizations*. New York, NY: Routledge.

Mintzberg, H. (1998). Covert leadership: Notes on managing professionals. Knowledge workers respond to inspiration, not supervision. *Harvard Business Review*, *76*(6), 140–147.

National Academy of Engineering and Commission on Behavioral and Social Sciences and Education (NAECBSS). (1991). *People and technology in the workplace*. Washington, DC: The National Academies Press.

Pfeffer, J. (1994). *Competitive advantage through people: Unleashing the power of the workforce*. Boston, MA: Harvard Business School Press.

Pfeffer, J., & Sutton, R. I. (2006). Evidence-based management. *Harvard Business Review*, *84*(1), 62–75.

Rogers, E. M. (2003). *Diffusion of innovations* (5th ed.). New York, NY: The Free Press.

Schein, E. H. (1988). Organizational socialization and the profession of management. *Sloan Management Review*, *30*(1), 53–65.

Schmidt, F., Hunter, J., & Outerbridge, A. (1986). Impact of job experience and ability on job knowledge, work sample performance, and supervisory ratings of job performance. *The Journal of Applied Psychology*, *71*, 432–439. doi:10.1037/0021-9010.71.3.432

Skinner, B. F. (1957). *Verbal learning*. New York, NY: Appleton-Century-Crofts. doi:10.1037/11256-000

Snell, S. A., & Dean, J. W. (1992). Integrated manufacturing and human resource management: A human capital perspective. *Academy of Management Journal*, *35*, 467–504. doi:10.2307/256484

Welch, J. (2005). *Winning*. New York, NY: HarperCollins.

Acknowledgment

Thanks to God for the gift of knowledge that He has provided me and the many people that He has placed in my life, which have allowed me to achieve all of my goals.

I would like to thank my daughter, Karla R. Banks, who was extremely supportive in numerous ways; especially enduring throughout the time it took for me to complete this book. Without Karla's mature, independent spirit and personality, this project would have been much more difficult to complete.

I would like to thank my parents, Mr. and Mrs. Eugene (Rosa M.) Hughes who have supported and encouraged my interests throughout my life. I would like to especially thank my mother for continuously keeping my family and me in her prayers, and for doing everything within her power to make her children's lives better. I would like to thank all of my brothers and sisters who have always provided their support: Richard A. Hughes, John H. Hughes, Jerome Hughes, Jimmie L. Hughes, Terry W. Hughes, Bernice Hughes, Levern M. Hughes, Alfonso Hughes, Margaret A. McFadden, and Roselind L. Hughes. Their families have also been very supportive.

Thank you to Dr. Merlin J. Augustine, Jr. for his friendship and for writing the foreword for the book. It's great to have someone who provides dependable, critical analysis of one's work.

I would like to specifically thank Dr. Samuel Winchester for his support of this idea from its inception over 18 years ago, during completion of my Master's degree, and at present. I would like to offer special recognition to Dr. Patrick A. O'Reilly for reading the initial theory paper and providing feedback for its evolution into this book and to Dr. Bobbie T. Biggs for reviewing the model upon its initial development. Thank you to Dr. Barbara Hinton for being the first to say, "Write up your work".

Thank you to all the anonymous, external reviewers for all the insightful feedback they provided during the writing of this book.

Extraordinary thanks Dr. David Robertson, Dr. Mary Ford, and Sheila King for behaving like family, their friendship, and for reading the book when asked and providing sincere feedback for improvement.

Special thanks to Tim Franklin and Joseph Augustine for their brotherly support.

Claretha Hughes
University of Arkansas, USA

Section 1
Introduction to the Framework

Chapter 1
Introduction

ABSTRACT

This book focuses on the other 99 percent of workers who do not fit into the executive or board member ranks within organizations. Where does their value to the organization reside? Is it in their location, use, maintenance, modification, time value or a combination thereof (Hughes, 2010)? As economies around the world sit at the precipice of collapse, younger workers are beginning to rebel against excessive unemployment and what they perceive as unfair distribution of wealth. Technology, specifically social media, has been implicated as the source by which the demonstrations started, yet this author would contend that technology in the workplace that is valued more than people is the true culprit. Technology has been displacing workers for generations. Training and education are not one and the same. Individuals often benefit most from a combination of both education and training because training can build on what one has been taught in school environments, and education can build upon and broaden an individual's knowledge in a specific skill area (Banks, 2002; Schein 1988). Organizations want the best performance from their employees; however, without knowledge and skill, employees cannot provide their best performance. Employers must clearly share their expectations or intentions with their employees. The objectives of this chapter are to discuss: 1) The intention of management with regards to people and technology development within organizations; 2) The ways that managers currently value people and technology in the workplace.

INTRODUCTION

In many instances when technology is mentioned, the mind tends to think of computer technology. The introduction of the personal computer has made computer technology relevant to the masses. However, technology goes well beyond computers and is thus not limited to that field within this book. The targets audiences of this book are HR managers and corporate leaders. This does not imply that people are more important than technology. Technology appears to be valued more than people even when it is already known to exist throughout all organizations. There is a perceived need for more technology and less people in US workplaces.

DOI: 10.4018/978-1-4666-0240-3.ch001

Evolution of the People as Technology (PT) Concept

Why this evolutionary theory of *People as Technology (PT)*? Having been asked this question many times since first formally presenting this concept, this concept originated from a culmination of the author's experiences in the corporate workplace, and it is important that a discussion on the genius of this concept precede the introduction of the concept. During manufacturing management trainee training, trainees rotate from department to department to learn every production process and auxiliary support function with the ultimate goal of being able to manage the technological processes and lead the people who do the work.

Analysis and synthesis of how and why specific jobs helped to support production goals was essential before assignment of trainees to official management positions. The concept of PT originated over the first four years of production experiences within the textile industry and further honed during additional years in the textile industry, healthcare and nutrition, bottling, and mining industries. The concept is also supported by research citations from leaders in the hotel and tourism, engineering, and retail industries as supported by references cited within this book.

The originating case for this concept is the textile industry where processes began with, in-house, research and development (R & D) and proceeded through preparation, to dyeing, to finishing, to physical testing, to final inspection, to shipping with many supporting activities in between. Complexity was the norm when running over 400 different styles of fabric in over 25,000 colors at any given time. In the midst of all this complexity, the biggest shock was that many of the 1,100 employees were marking an X on the required signature line on the form to confirm receipt of their pay check every two weeks. The vast majority of the wage employees could not read or write in 1991; in America!

This was particularly interesting and bothersome at the same time because on the one hand the organization was very successful at producing first quality product and meeting organizational goals. The elements of quality systems would say that this facility was very successful. However, on the other hand, in order to obtain International Organization of Standards (ISO) certification for the plant, the literacy standards of the people had to be increased to adjust to the required changes.

One of the key elements for ISO certification is training and development and in this particular case, virtually all the problems that arose were considered to be "people" problems – implying that the lack of education of the workforce was the root cause of all problems. This was hard to believe, since the facility was processing over 2.5 million yards of 1st quality product each week and investing over $30 million dollars in new equipment with no additional funding for training and development of an underdeveloped workforce. To improve the production capacity of employees being supervises, the decision was to test and see if the problems with off quality fabric were a result of "people" problems. To succeed in "Finding the competitive advantage through people, equipment, processes, training, and communication" the simple theory was to consider people as a technology. The elements that compared technology characteristics (on the left of the equal sign) to people characteristics (on the right side of the equal sign were to be evaluated and compared were: Location = Cohesiveness in assigned environment; Use = Qualifications; Maintenance = Continuous Training; and Modification = Growth and Change. The comparisons and evaluation of these elements were made with the ultimate goal of creating a first quality product and/or providing excellent service within the organization.

To begin the project of assessing whether or not production problems were indeed people problems, beam tickets (work order traceable tickets) were collected from 1st and 3rd shift on finishing frames (dryers) 10-15 for six months

each time an operator reported a problem or defect within any lot of fabric during production. That particular lot of fabric was then allowed to clear the inspection department before determining if information reported by finishing operators was confirmed after final inspection. Inspectors logged this information into a computer system as they inspected fabric, so verified information was obtained from an electronic database and compared against the information provided by the operators and documented on the beam tickets.

From the final project analysis of all data, the following information was deduced:

1. Identified key problems and sources of the problems for each finishing frame (10-15). Recommendations for solving the problems were provided to operators and management.
2. Confirmed the concept of "People as a Technology" because of the responsibilities that employees were held accountable for without proper financial and other resources. The disparity in investment in equipment/ technology and the investment in people was so vast that people might need to be treated or viewed as a technology to inspire better treatment. The suggestion was made to further explore the following comparisons: Location = Cohesiveness in assigned environment; Use = Qualifications; Maintenance = Continuous Training; and Modification = Growth and Change.
3. Determined that many of the problems were equipment, process, training, and communication problems and not directly people problems.
4. Recommended a shadow program and cross-training program for operators to learn to recognize types of problems associated with job requirements that required operators to move from frame to frame without understanding process changes of styles and finishes of fabric. Complexity without effective training causes employees to make errors.
5. Acknowledged that a first quality product can be adversely affected by people, equipment, processes, training, and communication.
6. Discovered limited effectiveness of business strategies including ISO 9000, Total Quality Management (TQM), Just-in-Time (JIT), and teams employed in the plant because of the lack of effective management and leadership of people, equipment, processes, training, and communication.
7. Identified an under-educated and under-trained workforce.
8. Identified communication as a key to bring closure to problems.

During this project case, the analogy of people to technology was made because of the vast discrepancy of how much money this particular facility was investing in new technology as opposed to people. Construction engineers tore down walls to provide additional space to the facility to house the new equipment while employees worked in cramped spaces within a plant that could reach well over 100 degrees during the summers. Thus, a consideration of the *location value* of equipment versus location value of people was warranted.

The new technology was brought in from Japan and Gaston County, NC with technical manuals and technical experts to install the equipment to make sure the technology was used appropriately. Thus, a consideration of the *use value* of people in the facility was merited. People were constantly perceived to be the problem when they made mistakes. They were then required by human resource reprimand policies to remain on jobs that they may not have been best suited to perform. There was no job rotation or changes if they received a certain number of reprimands. Ultimately, even if they had the potential to do a different job better, they were fired for not performing their current job. To put this into a better context, employees were trained on a particular finishing frame, but once trained for six weeks, they were often assigned to operate different frame. There were seldom any adjustments made for the different types of

fabric being run on the frame to which they were assigned. For example, if they were trained on a polyester finishing frame, and then assigned to run a wool finishing frame, they had no frame of reference regarding how polyester fabric had different characteristics than wool fabric. They could do the fundamental operations of the frame, but could not adjust to any complexities or identify any defects within the fabric. Missing defects was one of the main reasons for reprimands.

There was a huge maintenance staff and maintenance training program that the company developed and sold to other production companies throughout the world. Maintenance employees were trained and developed in ways that were directly tied to maintaining all of the technology and equipment in the plant. This staff included a painter whose only job was to paint 8 hours a day. However, all employees were not trained and developed or had their skills maintained in the same way. Consequently, *maintenance value* of equipment or technology versus maintenance value of people was considered.

These same maintenance employees were asked to work with the engineering department to modify equipment when asked; which was often since the in-house R & D staff consistently introduced new fabric ideas. Hence, equipment *modification value* versus people modification value was considered since employees began to acquire GEDs and other skills outside the facility as the organization began to realize that more knowledgeable employees were needed not only to operate new equipment and technology but also to meet ISO guidelines. Ultimately, a room was built in the plant to house a GED classroom and local teachers were brought in to offer GED preparation to the employees.

At this point in development of the model, *time value* was not a part of the model. Also, this was at a time when it was not politically correct to even mention technology in the same sentence as people. The project results revealed that people were not the problem or cause of many of the problems that occurred within many production processes. The problems identified were more often equipment, processes, training, and communication and not employees. Often the people had very little control over any of these matters. They were not allowed to adjust equipment without a supervisor present. They did not develop the processes and were not allowed to alter them. They were recipients of training not active participants in the training. Communication was often one-way with the employees as receivers of information.

To be successful an understanding the concept of PT requires one to alter traditional thought processes with regards to how people are treated and developed and how technologies, processes and procedures are managed. Using this concept contributed to success because the blend of how to manage technology and develop people effectively can be directly attributed to efficiency increases. This concept has also been used to design training programs. Many organizations already know how to train people. The role of this concept is to help HR managers and corporate leaders recognize their best practices and leverage them through an ideal blend of people and technology in the workplace.

Time value was added to the model after managing a group of people that consisted of temporary, contract, and permanent employees where there was truly no knowledge of know how long the temporary and contract employees would be needed as the transition was being made from an R & D production line to a traditional production line. Typically, temporary employees were a highly unstable workforce, especially when assigned to 3rd shift operations. The cost of technology is often depreciated over time on the balance sheet, but nowhere is the time value for employees documented. Besides, employment –at will allowed the employee and organization to disengage from each other without cause (Koy, Briggs, & Grenig, 1987; Malos, 1998).

There was not a specific theoretical foundation to introduce this to academia or other areas of the business literature, at this point, because it

was primarily applied in practice. The dilemma between theory and practice is continuously debated (Berger, Kehrhahn, & Summerville, 2004). How does one introduce theory into practice is the normal progression of the question. This book describes one case where it is reversed; a simple concept that works in practice needed to be introduced into the theoretical and academic world of research. Are we past the time where ideas similar to the apples falling from the tree and Sir Isaac Newton's subsequent development of the three laws of motion and gravity as a result and the mainstream accepting it as possible? If so, it must consider whether or not theoretical and conceptual research is accepted as a viable form of research or if we should simply depend upon empirical study to accept ideas and concepts as acceptable for addition to the knowledge base.

The continued development of this idea over 15 years occurred within academia and in workplace. A discussion of the use of cognitive, behavioral, and cultural research sparked the beginning of the theoretical concept to introduce the idea PT to the scholarly community. This concept is still evolving, hence this book.

As with most new ideas and concepts, there is a tendency for oversimplification. Some questions that have been entertained regarding the idea of viewing PT have included: For example, consider the implications of viewing human beings as machines such as computers, electric pencil sharpeners, or automated telephone answering services. The actual premise of this concept is using the word as, in the form of a simile not as a substitution. Therefore, it is asking HR managers and corporate leaders to consider the complexities of humans as they do the complexity technology. Another question was: Do we not recycle or discard these technological devices when they no longer serve our needs? Certainly humans do not wish to be viewed as technology and discarded and this not the intent of this book.

Some concerns expressed regarding the five point model stability include: productivity gains, skill development, supply risks, and time to market. Productivity gains are addressed within the model with regards to the improved effectiveness of people and technology through better understanding and application of the five values. Skill development is clearly covered in the maintenance and modification areas of the model. Supply risks are often addressed through ISO certifications; most organizations that compete internationally are ISO certified. Also, many supply risks are handled through government laws and regulations which are beyond the scope of this book. Time to market is often incorporated within the production process so that lead time is built in to the process. The time to market cannot be isolated from the technological processes and procedures which are covered in the cognitive portion of the book.

Since the beginning of recorded time, humans have enriched their lives through the labor of other humans. There have been many methods used attain enrichment from the work efforts of people; some positive and some negative. Methods have included slavery, feudal systems, indentured servitude, apprenticeship, child labor, and prison labor. Some of these methods continue today. However, since the industrial revolution, technology has received more recognition for productivity gains than human effort (Drucker, 1999). This is a key source of debate when organizations try to define their competitive advantage in the marketplace. How do we value people and technology in the workplace?

Organizations are continuously looking for ways to win (Carrig & Wright, 2006; Drucker, 1992; Hamel & Prahalad, 1994; Hoskisson, Hitt, Ireland, and Harrison, 2008; Porter, 1980; Welch, 2005; Womack & Jones, 1996) as they compete for their market share regardless of the industry or service area. Sometimes leaders become complacent in their views with regards to opportunities for growth and development. There are understandable limitations and restraints, yet there should always be opportunities to objectify current technological and people assets to enhance

the competitiveness of the organization. Organizations conduct in-depth audits of their financial and technical assets on a routine basis because it is tied to their bottom line. However, the audit of people is often limited to the number of employees or yearly performance evaluations and seldom goes beyond the surface to truly examine their value or worth to the organization. There are cases where executive employees including board members have placed significant value on themselves based upon their salary, stock options and other perks. How valid are their assessments? No one really knows. This would be a great place to start researching with the value creation model because these are highly visible individuals who must report their compensation because of Securities and Exchange Commission (SEC) mandates in the United States of America (USA).

This book focuses on the workers who do not fit into the executive or board member ranks within organizations. Where does the workers outside of the executive suite and corporate board room value to the organization reside? Is it in their location, use, maintenance, modification, time value or a combination thereof (Hughes, 2010)? As organizations persist in inspiring their people to continue to perform at peak levels, they must begin to address these issues.

The worldwide financial crisis has opened up room for discussion of this topic. As economies in nations around the world sit at the precipice of collapse, younger workers are beginning to rebel against excessive unemployment and what they perceive as unfair distribution of wealth. The Middle East and Europe has experienced the most unrest and political upheaval as a result. Technology, specifically social media

has been implicated as the source by which the demonstrations started, yet this author would contend that technology in the workplace that is valued more than people is the true culprit. Technology has been displacing workers for generations without much fanfare. The author did not use the word replace because technology cannot, by itself, replace people. Someone has to tell the technology what to do, so there remain many extensive roles for people within the workplace. The position or location value of the person has shifted. With this shift, there is now a need for the employee to possess more knowledge through training (maintenance value) or education (modification value) (Hughes, 2010). Training and education is not one and the same.

Training and/or education is often used to introduce new technological innovations to individuals within organizations (Banks, 2002; Wang, 2011). Training enhances human performance by bridging the gap that exists between job needs and the lack of knowledge or skill required to perform the job (Silberman, 1998). Training is narrow in the sense that it focuses on the "gap" in knowledge or the assessed need of the individual to acquire some specific knowledge and/or skill. It is often short-term and limited to a particular environment or task. It also focuses on the process and/or procedures needed to perform one or more tasks by providing specific 'need to know' information to the individual.

Education is much broader in nature than training. It is designed to prepare individuals for future aspirations as opposed to current needs. Education often provides general, as opposed to specific, knowledge and/or skills, and is more long-term. It is a more all-encompassing process of acquiring knowledge. Education focuses more on theory and background of applications as opposed to practical application. Training and education are different in many respects; however, they are similar with regard to their primary purpose of transferring knowledge to individuals.

The process of how training and education are administered has an impact on the quality of the results that the individuals obtain from their experiences. Training often identifies the problem through some type of needs analysis technique. Once the problem has been identified, a method to address it is determined through assessment techniques that can include surveys, interviews,

and/or observations. Once the appropriate method has been determined, proper development and execution of the training methods and instruction designed to solve the problem for the learner becomes crucial. There are various models that can be used to assist with the development of the proper instruction and the selection and use of appropriate methodologies (Wang, 2011).

Education often follows a prescribed curriculum that has been identified to address broad needs of the learner. Educators use methods that address the curriculum guidelines as opposed to learner specific guidelines. Their instructional materials often include a textbook as opposed to instructional materials developed for a specific need. Ultimately, education is a transfer of a body of knowledge and practice in a discipline or field of study; whereas training is learning and practicing activities and skills necessary to carry out a specific task or work practice that is more current and the demand for the skill more pressing and relevant.

Individuals often benefit most from a combination of both education and training because training can build on what one has been taught in school environments and education can build upon and broaden an individual's knowledge in a specific skill area (Banks, 2002; Schein 1988). Organizations want the best performance from their employees on a daily basis. Without knowledge and skill, employees cannot provide their best performance; however, employers must clearly share their expectations or intentions with their employees. The objectives of this chapter are to discuss:

1. The intention of management with regards to people and technology development within organizations.
2. The ways that managers currently value people and technology in the workplace.

BACKGROUND

Hoskisson, Hitt, Ireland, and Harrison (2008) define value as being "measure[d] by a product's performance characteristics and by its attributes for which customers are willing to pay"(p. 101). Can we then say that people performance is based upon their personal characteristics and their attributes that the organization is willing to pay for? Value is often seen as a relative term and is equated with money in organizations, but what truly is money? The monetary value of things has been debated for centuries (Friedman, 1994; Marx, 1906). The exchange value or purchasing power of money is measured within our capitalist society. What exactly is value relative to the competitive advantage of an organization? Organizations have a perspective(s) from and within which all activities are viewed. These perspectives are the cognitive, behavioral, and cultural perspectives or a combination thereof. Organizations attempt to quantify the value of their perspective(s) under the category of *goodwill* on the balance sheet. Goodwill is the value placed on non-quantifiable items such as logos, perception of customers and global presence to name a few. The fortunes, value, or viability of the organization can be determined based upon how they compete in the marketplace. People value is harder to define than technology value in the workplace; yet the workplace is inefficient without both values.

People Value

Researchers and practitioners have been trying to define the value of people to an organization for centuries with no clearly identifiable success (Phillips, 2003).There are compensation and benefits departments within organizations that strive to pay employees what they are deemed worth to the organizations, but many employees feel underpaid and underappreciated within the workplace (Adams, 1963; Leventhal & Whiteside, 1973; & Freedman, 1978). Numerous organiza-

tions spend money, yearly, on commissioned satisfaction surveys to evaluate the satisfaction or dissatisfaction level of their employees. Based on the results of these surveys, they try and make changes as necessary to accommodate the employees and/or to make the *Fortune*, *Forbes* or *Working Mother* best places to work list. It would be reasonable to expect an organization to know upon hiring an employee what their value is to the organization, yet very little upfront analysis is done to clearly understand an employee's value. Organizations truly believe that they determine an understanding of an employee's value through their recruiting offices, outsourcing firms and other elements within the organizational environment that are used to encourage employees to come to work for the organization; however, organizations have not been as successful as conceivable. Organizational leaders often look at employees from a one dimensional perspective. They have a job and they need an employee who meets the job criteria. It is believed to be that simple and all that has to be done is to motivate or encourage the employee to come and meet the job requirements. In some cases, this may work and organizations will have a satisfied employee for the life of their employment with the organization, but in the vast majority of cases this is emphatically not true.

Employees are multidimensional and need to be treated as such within the lifespan of their employment with the organization (Ramsey, 1986). Just recognizing this and acknowledging it to the employee would be a great first step for some organizations. Meeting the employees' multidimensional needs could then become a collaborative effort between the employee and the employer. This is what the five point Value Creation Model for Organizational Competitive Advantage strives to help organizations achieve: A collaborative understanding of what it takes for people and technology to coexist within the workplace to the benefit of the employee and the employer. People will acknowledge, often through their body language, their frustration with other employees but may never acknowledge their frustration that the technology they are being asked to use is a major source of their discontent within the workplace. Technology is never referred to as an indirect labor cost even when it stops working because its value has already been accounted for as a depreciated asset on the balance sheet. The employee is still looking for his place on the balance sheet. What type of administrative cost am I? What aspect of the employee is the organization paying for? In professional athletics in the US, there is continuous debate about the worth of an athlete. The Chicago Bulls were not paying Michael Jordan to sing, yet he may have been a great singer. Who knows? This is exactly the point with employees in traditional organizations, who knows what their abilities are if you are not seeking this information nor rewarding it if found within the workplace. Stewart (1997) argues that knowledge is bought and sold although it is an intangible entity and Schein (1988) suggests that an employee is worthless unless he adjusts to the norms of the organization. We may not know what the value of an employee is, but we know when an employee holds no value for the organization and can calculate the administrative cost of hiring a replacement. Orr (1996) contended that

Millions of people go to work each day to do things that almost no one but themselvea understands but which large numbers of people believe they know enough about to set policy offer advice, or redesign. Work has become invisible. (p. xi)

This author would agree with Orr but would suggest that work has become invisible because management has lost focus on the people that are doing the work.

Technology Value

Historically, technology was introduced in organizations to the detriment of human performance. The focus was introduced by Taylor (1911) as

scientific management and advocated the elimination of the human element within the workplace. He preferred the dehumanizing reliance on measurement to interaction with employees. Taylor's view was based on the premise that the organizations' best way to create wealth was to have the machines do all the work and make more with less. This concept is still evident today with the focus on reengineering (Champy & Hammer (1993) which views the organization as a machine rather than a human system. The emphasis was that technology is more valuable to the organization than its people.

Technology in this book refers to any useful method of performing a work task that is completed without human intervention or through human initiation. Based on this definition technology could be a robot or robotic machines such as self-propelled forklifts or tow motors, computers, and equipment control panels or controllers among many others. We can all think of technology innovations and automatically attribute perceived value to that technology. Drucker (1999) noted that "the most valuable asset in the 20th-century company was its production equipment" (p.79). When we think of the steam engine, we think of faster distribution of goods through railroad transportation. When we think of the Internet, we think of global communication, extensive business development, Google, Facebook, and social media. When we think of the computer, we think of the billions of dollars that Microsoft, Intel, Hewlett-Packard, and Dell has made. Thus, the value of technology is intuitively assumed.

The People vs. Technology Value Quandary

When we think of people do we truly consider them to be of value to the organization? If the answer is yes, how do we measure that value? How do we harness their abilities in ways that benefit them and the organization? Why is it that employees feel exploited and undervalued in the workplace? Orr (1996) states that

In the past, those who ran organizations were familiar with production processes. They often designed the process and had even done the work themselves. Today, organizations are so complex that it is difficult for those in charge to have experienced the organization's work firsthand. Moreover managers are often hired from the outside, and their experience frequently lies in completely different industries. (p. xi)

There is a complexity within work that can often only be understood by those who spend time in the trenches (the heart of the organization where the true work is done). This is what is being communicated and is occurring in the currently popular television series "Undercover Boss". Without firsthand knowledge and/or experience of what is happening in the organization one does not truly understand the process or system that needs to be controlled. It is frequently not the people who need to be controlled but instead, the true nature of the process that needs to be controlled. The problem with "Undercover Boss" is that the bosses can be undercover in their own organization. Why is it that so many employees are incapable of identifying their boss? That is a topic for an entirely new book.

When supervising or leading people in the workplace, one expects that the employee will come to work and be on time. One expects that employees have been assigned to and are doing the right job that will benefit the organization. One also expects that the employee will remain loyal to the organization and not leak valuable information or take our trade secrets with them when they leave which is why some employees sign employment and/or non-compete contracts. The legal system is used to keep employees under control. Individuals in US society will sue an employee if they make a mistake; yet, these same individuals do not sue technology. The

maker of the technology may be sued which still takes us back to people. Society often does not consider this to be a bad thing, just a necessary cost of doing business in a capitalist society with global competition. On the other side, there are government regulations, unions, and corporate policies which are designed to try and create amenable relationships between the organization and the employee. These policies are created to protect the employee from being exploited by the organization. Employment-at-will laws exist and permit the employee and the organization to part ways as they deem appropriate (Koy, Briggs, & Grenig, 1987; Malos, 1998). There seems to be a never ending system of give, take, and protect between employees and organizations.

To adapt to some of these constraints, organizations have chosen to relocate their businesses to areas with minimum employment standards and laws; whether it is within or outside the US. They choose to reduce the number of employees and increase the amount of technology which leads to the contention that is least discussed within the business press (that was until the great recession): The choice to invest in technology as opposed to people. Despite the vast numbers of unemployed people, businesses still earned 1.66 Trillion in profit in 2010; the most in 60 years of government records. Productivity and revenue generation evidently has not suffered too much without the millions of former employees. Organizations are pondering whether they should even rehire more workers or rely on technology. This is even an emerging conversation within the political arena in the US with regards to the use of drone technology as opposed to placing military personnel on the ground in the War on Terror.

MAIN FOCUS OF THE CHAPTER

People and technology are the foundation of organizations (Becker, 1964 & 1993; Betz, 1993; Carrig & Wright, 2006; Jacobs, 1989; Martelli, 1998; Pfeffer, 1994), but the degree to which one has more value than the other is undecided. There are multiple competing opinions regarding the value of people versus the value of technology.

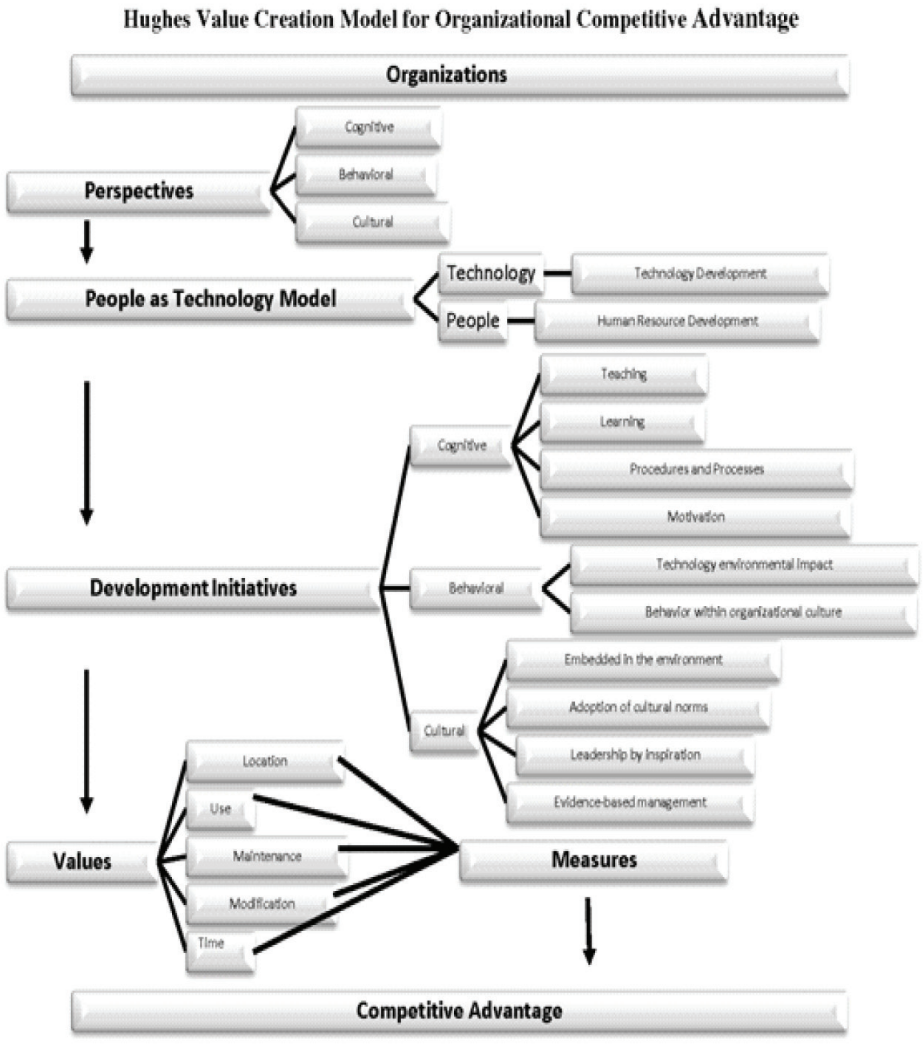
Introduction to the Value Creation Model for Organizational Competitive Advantage

The five point *Value Creation Model for Organizational Competitive Advantage* was derived from the author's personal high-performance manufactuing industry experiences. The model is a framework that is an extenstion of Hughes' (2010) PT conceptual model which depicts opportunities for examining the similarities between technology development and human resource development and how organizations can use these similarities for value creation. The model provides a research starting point to determine the extent to which location, use, maintenance, modification, and time value creation may be obtained from integrating technology development and human resource development from the cognitive, behavioral and cultural perspectives (Hughes, 2010).

Aguinis and Kraiger (2009) suggest that there is "[a]n important challenge for the practice of training… to integrate the training function with employee selection, performance, management, rewards, and other human resource practices (Aguinis, 2009; Aguinis & Pierce, 2008, & Cascio & Aguinis, 2005)" (p.467). This model provides a theoretical framework for further research and practical applications of management practices, training practices, HRD philosophy, and HRD strategies within organizations. The model is not limited to a particular industry or organization, thus its potential for research applicability is vast.

The purpose of this book is to introduce the five point *Value Creation Model for Organizational Competitive Advantage* (See Figure 1) and to inspire transformation and examination of ways to develop measures for the values.

Figure 1. Hughes value creation model for organizational competitive advantage



To understand the framework, one must understand the purpose of organizations. Organizations exist to compete in the marketplace for revenue (Carrig & Wright, 2006; Hamel & Prahalad, 1994; Hoskisson et al., 2008; Pfeffer, 1994; Porter, 1980; Schein, 1988; Welch, 2005; Womack & Jones, 1996). To attain revenue organizations must have some type of competitive advantage (Hoskisson et al., 2008; Porter, 1980) that they are capable of consistently performing better than or as well as all of their competitors.

The Five Points

The first point of the model shows the three undisclosed perspectives within which organizations typically operate. The perspectives are cognitive, behavioral, and cultural. Organizations often operate from one dominant perspective that supports their main strategy for performance, but can include a combination of the perspectives. The perspectives will be explained in detail in chapter two.

The second point of the model is the PT conceptual model (Hughes, 2010). The PT model introduces the five values that relate people to technology and provides opportunities for equivalence, interaction, and understanding of how people and technology relate to each other within the workplace. The PT model suggests that just as technology has location, use, maintenance, modification, and time value to the organization, so do people. It suggests that if managers would think of people similar to how they positively view technology within the workplace; they will be able to encourage them to be more effective in their job performance.

Managers struggle as they attempt to supervise or lead people (Drucker, 2008; Kotter, 1996). If this were not true, publishers of leadership books and consultants who provide leadership training would be non-existent. Most of the research studies today centers on how to convince employees to change their behavior, this book centers around convincing managers to change their thought process about how they perceive their employees' value within the workplace without having to try and convince themselves that employees are their most important asset. They will know by their action or performance.

Point three of the model addresses some of the various initiatives that organizations introduce to develop technology and people within the workplace. They are often referred to as Fads when they dissipate after much fanfare and limited results. Whichever fad catches on the best often makes the creator very rich and leaves many organizations and even industries with chaos that the next great fad is designed to correct.

Most, if not all, initiatives are well-intended and well designed. The problem occurs when the people who are asked to implement these initiatives do not know why they have been introduced or what they are being asked to do or change. Most initiatives involve some type of major or minor change for the employee or even the culture of the organization. Most research on cultural change (Bolman & Deal, 2008) suggests that it takes three to five years to change a culture, but many organizations want their initiatives to be effective seemingly overnight after they introduce it to the employees. Once the rollout occurs change is expected instantaneously.

This model suggests that all initiatives must be understood from the perspective within which it is introduced. The new perspective may actually be at odds with the overall perspective of the organization and this should be understood by management prior to it being introduced to employees. Once the perspective is understood, employees could be made better aware of the type of change that is about to occur. Typically, the employees may be told what is to change and not understand why the change is occurring or is needed. Clarifying the need for change such that it is clearly understood by emoloyees may lead to less resistance to the change and better implementation of the new initiative (Orr, 1996).

Point four of the model involves the five values that relate people to technology within the workplace. These values were introduced in the PT (Hughes, 2010) conceptual model but are defined here to suggest ways to measure their value to the organization. If these values can be quantified to the extent that organizations can see their people as clearly as they see their technology value, they will have attained a clear path to a competitive advantage in the workplace and subsequently the marketplace.

Point five introduces the ways that the measurable people values can be integrated into the organization so that the organization can leverage its competitive advantage to win in the marketplace and within the global economy. The organization should be stronger as its people understand their value and perform at levels that enhance their productivity to the organization.

Issues, Controversies, Problems

Drucker (1999) stated:

The most important, and indeed the truly unique, contribution of management in the 20th century was the fifty-fold increase in the productivity of the manual worker in manufacturing. The most important contribution management needs to make in the 21st century is similarly to increase the productivity of knowledge work and knowledge workers. The most valuable assets of the 20th century company was its production equipment [technology]. The most valuable asset of a 21st century institution (whether business or non-business) will be its knowledge workers [people] and their productivity [value]. (p. 79)

The challenge outlined by Drucker clearly aligns with the author's perception that there must be a way to align people and technology within the workplace to add value that will lead to a competitive advantage for the organization. The five values of people and technology development provide alignment alternatives and opportunities for organizational success. This framework and its propositions are a starting point from which organizations can leverage their most valuable assets, people and technology for competitive advantage.

Some propositions (Hughes, 2010) to be considered for examination for competitive advantage are included in Table 1.

Solutions and Recommendations

Understanding the role of these propositions within the context of the interaction of people and technology in the workplace provides ways to enhance an organization's ability to successfully compete. Many initiatives have been introduced to and implemented by organizations to try and solve the problems of how to increase productivity within the workplace. These initiatives have in some ways been highly successful but in other ways highly detrimental to the organization. Some organizations no longer exist because of technology reliance, and some no longer exist because of people reliance. There has to be a blend of commonalities that is beneficial to the organization as a whole.

Developing measures for the five values and concentrating on the propositions related to each value provides a method of organizing the best elements of initiatives that have been developed to better meet the needs of the organization. For example, career development already exists, but how is it best aligned with where employees are located within the organization. There are still controversies related to succession planning and team development and alignment that may be resolved as the five values are introduced to the organization.

FUTURE TRENDS

Emerging research trends within organizations include targeted training. What are they targeting their training towards? Through the use of this framework, training can be targeted to the needs of the employees with respect to the technological innovations that the organization would like to employ. Research with regards to targeted assessment of current needs in the workplace may serve the organization better than targeted training. They may already have the talent in-house that needs no additional training. Being willing to think differently may produce results that may cost the organization the amount of time it takes to align people to their strengths which match organizational needs. Studying the established PT model (Hughes, 2010), an integrative tool which can be operationalized and measured within the workplace, may lead to extensive research opportunities.

Table 1. Summary of values and propositions

Values	Propositions
Location	*Proposition 1a:* Employee performance increases as their comfort with their assigned environment increases. *Proposition 1b:* As organizational investment in employee cohesiveness to environment and adaptability to organizational culture increases, employee performance and retention increase. *Proposition 1c*: Organizations' career development strategies' success or failure may depend upon the proper placement of employees internally and externally to the organization.
Use	*Proposition 2:* As person-job fit becomes more specific through enhanced job analysis and selection strategy, employee use value increases.
Maintenance	*Proposition 3a:* When companies invest in training, development, and motivation of their employees, the employee maintenance value to the organization increases through improved performance. *Proposition 3b:* Targeted training will be more effective as employee maintenance value is better understood. *Proposition 3c:* The ROI (Phillips, 2003) from training and cost benefit analysis of the training can be better aligned to employee development as well as to organizational development.
Modification	*Proposition 4a:* As organizations adjust to growth, change, and job enrichment needs of employees, employee modification value increases. *Proposition 4b:* As organizational, employee, and leader expectations are better understood within organizations, better decisions that may lead to the success of the organization can occur.
Time	*Proposition 5:* As organizational leaders better manage and understand how to enhance the time value of employees, employee length of service increases.

CONCLUSION

The existing challenges in the management of people and technology within the global workplace require modern thoughts as well as innovative technology. The introduction of the five values of people and technology development and the five point *Value Creation Model for Organizational Competitive Advantage* provides an opening for more advanced thought in the workplace concerning the potential to truly leverage people and technology potential. The lack of a clear understanding to the value of people and technology in the workplace limits the ability of the organization to remain and enhance its competitiveness. The model provides opportunity for organizations to develop measures to value people and technology within the workplace that will enhance their competitive advantage. Today's global marketplace demands that an organization be able to compete and it is impossible to contend for success without effective people and productive technology. Some benefits of the model include:

1. An end to debate regarding the value of people versus technology in the workplace;
2. An ability to leverage the combined strength of the blend of people and technology in the workplace;
3. Better team alignment based on the values that people possess;
4. Improved morale as people better understand their value to the organization;
5. Clearer organizational design strategies to organizational values;
6. Management intent better aligned with people capacity;
7. Stronger people asset management tied to the balance sheet; and

8. Training and education that is truly tied to the needs of the organization's people resources.

Using the five point *Value Creation Model for Organizational Competitive Advantage* can assist organizations as they determing the extent to which value creation can be derived from integrating technology development and human resource development from the cognitive, behavioral and cultural perspectives in the workplace. Without a concerted, strategic focus organizations will still be looking at people in isolation of technology and struggling to win the battle for competitive advantage.

REFERENCES

Adams, J. S. (1963). Toward an understanding of inequity. *Journal of Abnormal and Social Psychology*, *67*, 422–436. doi:10.1037/h0040968

Aguinis, H. (2009). *Performance management* (2nd ed.). Upper Saddle River, NJ: Pearson Prentice Hall.

Aguinis, H., & Kraiger, K. (2009). Benefits of training and development for individuals and teams, organizations, and society. *Annual Review of Psychology*, *60*, 451–474. doi:10.1146/annurev.psych.60.110707.163505

Aguinis, H., & Pierce, C. A. (2008). Enhancing the relevance of organizational behavior by embracing performance management research. *Journal of Organizational Behavior*, *29*, 139–145. doi:10.1002/job.493

Banks, C. H. (2002). A descriptive analysis of the perceived effectiveness of Virginia Tech's faculty development institute. *Dissertation Abstracts International, 64*(8). (UMI No. 3102585)

Becker, G. S. (1964). *Human capital: A theoretical and empirical analysis, with special reference to education*. Chicago, IL: University of Chicago Press.

Becker, G. S. (1993). *Human capital: A theoretical and empirical analysis, with special reference to education* (3rd ed.). Chicago, IL: University of Chicago Press.

Berger, N. O., Kehrhahn, M. T., & Summerville, M. (2004). Research to practice: Throwing a rope across the divide. *Human Resource Development International*, *7*, 403–409. doi:10.1080/1367886042000246003

Betz, F. (1993). *Strategic technology management*. New York, NY: McGraw-Hill.

Bolman, L. G., & Deal, T. E. (2008). *Reframing organizations: Artistry, choice, and leadership* (4th ed.). San Francisco, CA: Jossey-Bass.

Carrig, K., & Wright, P. M. (2006). *Building profit through building people: Making your workforce the strongest link in the value-profit chain*. Alexandria, VA: Society for Human Resource Management.

Cascio, W. F., & Aguinis, H. (2005). *Applied psychology in human resource management* (6th ed.). Upper Saddle River, NJ: Pearson Prentice Hall.

Champy, J., & Hammer, M. (1993). *Reengineering the corporation*. New York, NY: HarperBusiness.

Drucker, P. F. (1992). *Managing for the future*. Oxford, UK: Butterworth Heinemann.

Drucker, P. F. (1999). Knowledge-worker productivity: The biggest challenge. *California Management Review*, *41*(2), 79–94.

Drucker, P. F. (2008). *Management* (rev. ed.). New York, NY: HarperCollins.

Freedman, S. M. (1978). Some determinants of compensation decisions. *Academy of Management Journal*, *21*, 397–409. doi:10.2307/255722

Freidman, M. (1970, September 13). The social responsibility of business is to increase its profits. *The New York Times Magazine,* 32-33.

Friedman, M. (1994). *Money mischief: Episodes in monetary history*. Orlando, FL: Harcourt Brace.

Hamel, G., & Prahalad, C. K. (1994). *Competing for the future*. Boston, MA: Harvard Business School Press.

Hax, A. C., & Majluf, N. S. (1996). *The strategy concept and process: A pragmatic approach* (2nd ed.). Upper Saddle River, NJ: Prentice Hall.

Hoskisson, R. E., Hitt, M. A., Ireland, R. D., & Harrison, J. S. (2008). *Competing for advantage* (2nd ed.). Mason, OH: South-Western.

Hughes, C. (2010). "People as technology" conceptual model: Towards a new value creation paradigm for strategic human resource development. *Human Resource Development Review*, *9*(1), 48–71. doi:10.1177/1534484309353561

Jacobs, R. (1989). Systems theory applied to human resource development . In Gradous, D. B. (Ed.), *Systems theory applied to human resource development* (pp. 27–60). Alexandria, VA: American Society for Training and Development.

Kotter, J. P. (1996). *Leading change*. Boston, MA: Harvard University Press.

Koy, D. J., Briggs, S., & Grenig, J. (1987). State court disparity on employment-at-will. *Personnel Psychology*, *40*, 565–577. doi:10.1111/j.1744-6570.1987.tb00615.x

Kozlowski, S. W. J., & Salas, E. (Eds.). (2010). *Learning, training, and development in organizations*. New York, NY: Routledge.

Leventhal, G. S., & Whiteside, H. D. (1973). Equity and the use of reward to elicit high performance. *Journal of Personality and Social Psychology*, *25*, 75–83. doi:10.1037/h0034276

Lewin, K. (1946). Action research and minority problems. *The Journal of Social Issues*, *2*(4), 34–46. doi:10.1111/j.1540-4560.1946.tb02295.x

Malos, S. (1998). Current legal issues in performance appraisal . In Smither, J. (Ed.), *Performance appraisal: State of the art in practice* (pp. 49–94). San Francisco, CA: Jossey-Bass Publisher.

Martelli, J. (1998). Training for new technology: Midwest steel company . In Rothwell, W. (Ed.), *Linking HRD programs with organizational strategy* (pp. 85–96). Alexandria, VA: ASTD.

Marx, K. (1906). *Capital* (*Vol. 1*). Chicago, IL: Kerr.

Orr, J. E. (1996). *Talking about machines. An ethnography of a modern job*. Ithaca, NY: ILR Press/Cornell University Press.

Pfeffer, J. (1994). *Competitive advantage through people: Unleashing the power of the workforce*. Boston, MA: Harvard Business School Press.

Pfeffer, J., & Sutton, R. I. (2006). Evidence-based management. *Harvard Business Review*, *84*(1), 62–75.

Phillips, J. J. (2003). *Return on investment in training and performance improvement programs* (2nd ed.). Burlington, MA: Elsevier Science.

Porter, M. (1980). *Competitive strategy*. New York, NY: Free Press.

Ramsey, M. (1986). *The super supervisor*. Greensboro, NC: Positive Presentations, Inc.

Schein, E. H. (1988). Organizational socialization and the profession of management. *Sloan Management Review*, *30*(1), 53–65.

Silberman, M. (1998). *Active training* (2nd ed.). San Francisco, CA: Jossey-Bass/Pfeiffer.

Stewart, T. A. (1999). *Intellectual capital: The new wealth of organizations*. New York, NY: Doubleday.

Swanson, R. A. (2007). Theory framework for applied disciplines: Boundaries, contributing, core, useful, novel, and irrelevant components. *Human Resource Development Review*, *6*, 321–339. doi:10.1177/1534484307303770

Wang, M. (2011). Integrating organizational, social, and individual perspectives in Web 2.0-based workplace e-learning. *Information Systems Frontiers*, *13*, 191–205. doi:10.1007/s10796-009-9191-y

Welch, J. (2005). *Winning*. New York, NY: HarperCollins.

Wenstop, F., & Myrmel, A. (2006). Structuring organizational value statements. *Management Research News*, *29*, 673–683. doi:10.1108/01409170610715990

Womack, J. P., & Jones, D. T. (1996). *Lean thinking*. New York, NY: Simon & Schuster.

KEY TERMS AND DEFINITIONS

Goodwill: The value placed by organizations on non-quantifiable items such as logos, perception of customers, and global presence.

Chapter 2
Organizations

ABSTRACT

All organizations operate within perspectives, whether acknowledged or not. This author would like to suggest that all organizations operate primarily from one of three perspectives or a combination thereof. The three perspectives are cognitive, behavioral, and cultural. In other words an organization's core values, strategies, and/or frames originate from the cognitive, behavioral, and /or cultural perspective. The chapter will focus on the following: (1) Elaborate on the cognitive, behavioral, and cultural perspectives of organizations within the context of organizational design and (2) Discuss how combinations of the perspectives can be beneficial to organizations that are striving to understand organizational theory and behavior to successfully compete.

INTRODUCTION

The term organization has variations including business (for profit and not for profit), establishment, foundation, society, association, and institution. Within this book the term organization will be used to represent all of these entities. Swanson & Holton (2001) describes organizations as "human-made entities that rely on human expertise in order to establish and achieve their goals" (p.10). Bush (1987) defines an institution as a "set of socially prescribed patterns of correlated behavior" (p. 1076). He then notes that the concept of correlated behavior consists of two key tenets; behavior within an institution is not random but purposeful and correlated, and values are the "correlators."

All organizations operate within perspectives, whether acknowledged or not. The perspectives consist of core values (Collins & Porras, 1994), strategies (Drucker, 2008), and frames (Bolman & Deal, 2008). This author suggests that all organizations operate primarily from one of three perspectives or a combination thereof. The three perspectives are cognitive, behavioral, and cultural. In other words an organization's core values, strategies, and/or frames originate from the cognitive, behavioral, and /or cultural perspective. The chapter will: (1) Elaborate on the cognitive, behavioral, and cultural perspectives of organizations within the context of organizational design and (2) Discuss how combinations of the perspectives can be beneficial to organizations that are striving to understand organizational theory and behavior to successfully compete.

DOI: 10.4018/978-1-4666-0240-3.ch002

BACKGROUND

Organizations and theories that define or explain human behavior within organizations have been the focus of research studies in fields including sociology, business, and human resource development. Common methods and theories that have been derived include organization theory, institutional theory, organizational development and organizational design.

Organization and Institutional Theory

Barnard (1938) originated organization theory. He defined organization as "Formal organization is that kind of cooperation among men [*sic*] that is conscious, deliberate, [and] purposeful" (p.4). He suggested that the organizational system could make up for the limitations of the cognitive ability of men. One area of organizational theory that is essential to this chapter is the organization-environment relationship (Tushman & Anderson, 1986). Hinings and Greenwood (2002) trace the history of organization theory, from its roots which began with Weber (1964), as a discipline in sociology to its migration in business.

Selznick (1949) expanded Barnard's work and introduced institutional theory. Selznick's work suggested to leaders that they needed to define and defend organizational distinctive character. His view also led to strategic decision-making and the creation of organizational cultures (Scott, 1987).

Institutional theory concentrates on social structure. It examines the processes by which structures, including schemas, rules, norms, and routines, become reliable guidelines for social behavior. It inquires how these elements are created, diffused, adopted, and adapted over space and time; and how they fall into decline and disuse (Scott, 2004). Scott (1987) describes institutionalization as

the social process by which individuals come to accept a shared definition of reality – a conception whose validity is seen as independent of the actor's own views or actions but is taken for granted as defining the 'way things are' and/or the 'way things are to be done.' (p. 496)

Perhaps this definition of institutionalization best illustrates the link between HRD and Institutional Theory. HRD, through the lens of institutional theory, becomes the operational arm by which the "shared definition of reality" is propagated throughout the organization.

Why the organization exists must be known by the individuals who are expected to execute its strategy. Historically, organizations did not have to worry about this because the people who worked there were not required to think. They were just expected to act or behave the way management required. They did so to keep their job and obtain a pay check. To be competitive today, especially in developed countries, organizations have to deal with employees who are engaged in their career. Drucker (1999) referred to them as knowledge workers.

Organizational Development

Organization development has been defined by many, and involves the principles, processes, and performance within organizations (McLagan, 1989; McLean & McLean, 2001; Egan, 2002; Cummings & Worley, 2005; McLean, 2006). This author would replace principles with cognitive, behavioral, and/or cultural perspectives, processes with technology, and performance with people to describe organizational development. From what perspective are organizations introducing its principles? To what extent do organization processes depend upon technology? To what extent does its performance depend on the operation of technological processes and the action of its people?

McLean (2006) broadly describes organization development as:

... any process or activity, based on the behavioral sciences, that, either initially or over a long term, has the potential to develop in an organization setting enhanced knowledge, expertise, productivity, satisfaction, income, interpersonal relationships, and other desired outcomes, whether for interpersonal or group/team gain or for the benefit of an organization, community, region, or, ultimately, the whole of humanity. (p. 9)

McLean provides a comprehensive definition related to the process. A process is not implemented without people and/or technology. Most often it requires the action of both people and technology.

Organizations want to remain and enhance its competitiveness. Ultimately, this may benefit the society within which it operates, but it must first develop its technology (Maidique & Hayes, 1984) and its people (Swanson & Holton, 2001). The five point *Value Creation Model for Organizational Competitive Advantage* along with the five values of people and technology development will assist practitioners and researchers as they improve organizational development practices.

Organization Design

Galbraith and Lawler (1993) note that organizational design historically meant organizational structure, but now "it means an alignment of structure, management processes, information systems, reward systems, people, and other features of the organization with business strategy" (p.2). This author suggests that the alignment must occur with an understanding of the perspective(s) within which it is being implemented. A misalignment with the perspective(s) can be disastrous as is seen very often with mergers and acquisitions. Many of them are not successful because of a misalignment between the cultural, behavioral, or cognitive perspectives of the organizations that are being combined (Welch, 2005). Looking only at the structure and the finances of the organizations in question causes managers to miss the underlying principles of operation of the organizations. There are many examples including the AOL/ Time Warner merger. This does not only occur with mergers and acquisitions but also occurs between partnering organizations. Arthur Anderson no longer exists because of its misalignment with Enron. It appears that Enron's values influenced Arthur Anderson to disregard their values in the pursuit of financial gain.

The perspective(s) within which the organization operates must be a part of its design so that it can help the organization understand its functions. By including it as part of the design, leaders can make better initial decisions when an alignment does not make sense.

Organizations are changing entities and have goals of succeeding through the effective performance of people and technology. Understanding the dynamics of the relationship between and influences of the relationship of people and technology within organizations is essential to their competitive advantage. If values are "correlators"(Bush, 1987) of an organization, organizations can use the five values of people and technology development to better correlate their efforts toward success.

MAIN FOCUS OF THE CHAPTER

The cognitive, behavioral, and cultural perspectives are three pillars within which organizations can determine the true value of employees and technology within organizations. More emphasis may need to be dedicated to employees because in most organizations, technology value is already an integral part of their value chain and measurement procedures. Revealing the cognitive, behavioral, and cultural perspectives of organizations must be done within the context of organizational design to add value to the organization. "Organizational design is not only the process of creating a structure, but it also includes alignment of management functions, information systems, human resources, and other elements within that structure" (Olson, 2002, p. 82). Integration of these three perspectives into the organizations should be a part of the design

process and not an addendum to processes that are currently in place. Recognizing these perspectives will require a paradigm shift for organizations.

Recognizing how the cognitive, behavioral, and cultural perspectives impact organizations' functionality is critical to organizational success. Typically organizations determine their vision, missions and goals based on an identified or perceived need within the marketplace and/or society. After acknowledging the need or problem to be solved and deciding to develop ways of addressing or solving the problem, the organization's leaders will develop a strategy and proceed to implement their strategy. The ultimate goal is to focus on and solve the problem. The context within which this strategy implementation occurs often becomes the secondary focus. This author suggests that the context become the primary focus so that strategies can be more effectively implemented.

Before or simultaneously with the development of the vision, mission and goal development, organizations should determine the perspective within which it is operating. They must first understand the cognitive, behavioral, and cultural perspectives. Historically, due to the influences of Skinner (1957), Taylor (1911), Deming (1982), and Juran (1989) among others, the American workplace has operated from the behavioral perspective.

Cognitive Perspective

Cognitive Psychology and theory began with the work of Bruner (1956) and Miller (1956). Their work has evolved through the contributions of Ausubel (1960), Ausubel and Youssef (1963), Neisser (1967), and Jenkins (1974). This field is continuing to evolve today. With respect to education, there are eight themes that relate cognitive psychology to teaching and learning (Bruning, Schraw, & Norby, 2011). These themes are:

1. Learning is a constructive, not a receptive, process.
2. Mental frameworks organize memory and guide thought.
3. Extended practice is needed to develop cognitive skills.
4. Development of self-awareness and self-regulation is critical to cognitive growth.
5. Motivation and beliefs are integral to cognition.
6. Social interaction is fundamental to cognitive development.
7. Knowledge, strategies, and expertise are contextual.
8. A cognitive approach to teaching implies new approaches to assessment.(pp. 5-8)

These themes should be prevalent within organizations that employ the cognitive perspective. Organizations such as consulting firms, educational institutions, and legal firms are examples where the cognitive perspective is the primary operational perspective. These types of organizations may also operate within aspects of the behavioral and cultural perspectives but the cognitive perspective is dominant.

The cognitive perspective deals with how organizations value the knowledge assets of its people. Is the knowledge that a person brings to the organization being managed and valued? Historically, in behavioral based organizations, the cognitive ability of employees has not been valued (Pfeffer, 1994; Welch, 2005). Cognitive theorists believe that a complete view of human behavior cannot be understood "without studying the internal mental and perceptual processes of specific individuals" (Gall, Gall, & Borg, 2007, p. 492). Cognitive researchers assume that most behavior is preceded by the formation of an attitude (Murphy, 1989). Thus, attitude is studied in order to predict behaviors. Attitudes can be positive, negative, neutral, or ambivalent. The attitude shown by employees within the workplace impacts their cognitive perspective and how they develop intentions towards workplace behavior (Jago & Vroom, 1978).

Behavioral Perspective

The behaviorist's can be traced to Thorndike's (1898, 1911) instrumental conditioning and the law of effect. The law of effects introduced the idea of rewarding behavior that one wanted to see repeated to spawn more complex behavior development. Watson (1913) brought the behaviorist tradition to America and emphasized the concept of nurture over nature; and the absence of choice for the individual. Behaviorism, "the study of learning in humans and animals as understood through behavior rather than thoughts and feelings" (Martinez, 2010, p. 6), originated with Pavlov's (1927) classical conditioning experiments. Behaviorism further evolved with Skinner's (1957) operant conditioning and has three basic assumptions about learning. They are:

1. Observable behavior, rather than internal mental events or verbal reconstruction of events, should be the focus of study.
2. Behavior should be studied in terms of its simplest elements, i.e., specific stimuli and specific responses.
3. The process of learning is behavioral change. That is a particular response becomes associated with the occurrence of a particular stimulus. (Gredler, 2009, p.37)

Both classical and operant conditioning placed very little emphasis on the mental capacity of the individual.

The concepts of behaviorism began to be challenged by Tolman (1932), Chomsky (1959) and Bandura (1961). Tolman challenged behaviorism through the idea of purposive behaviorism which introduced the idea that goals and purpose inspired action. He showed that stimulus did not directly produce a response without the mediating role of the organism which has been termed neobehaviorism. Chomsky (1959) argued against stimulus-response-reinforcement in the study of language and suggested that the ability to learn language was already embedded in the brain's structure inspiring the nativism movement within psychology. Bandura introduced social learning theory to contradict the premise of firsthand experience. He showed that individuals can learn by observing and imitating the behavior of others. Bandura eventually introduced the cognitive concept of self-efficacy which "refers to a person's sense of his or her own capability – whether or not the person is able to perform specific actions successfully" (Martinez, 2010, p.29).

In the early American workplace, specifically manufacturing, behaviorism as expressed by Pavlov, was adopted and presented as scientific management (Taylor, 1911). There is still strong evidence in today's workplaces that behaviorism is the dominant management style. Drucker (1999) and others have challenged scientific management and support knowledge management instead. Martinez (2010) offered ten strategies to promote learning through the use of behaviorist theory. They are as follows:

1. Avoid associating learning with negative emotions.
2. Associate learning with positive emotions.
3. Use continuous reinforcement to initiate new behavior.
4. Tailor reinforcement to the individual.
5. Be careful not to reinforce undesired behavior.
6. Reduce reinforcement after the new behavior becomes established.
7. Switch to random reinforcement to make the new behavior robust.
8. Be careful of the undermining effects of extrinsic reward.
9. Use unanticipated rewards.
10. Use cognitive concepts. (pp. 32-33)

These ten strategies were introduced to offset some of the negative connotations of behaviorism and advance the goals of teaching and learning. They can also be used to help promote a change

to the perception of behaviorism's use in today's workplaces.

Cultural Perspective

John Dewey (1910) introduced the thought that consciousness is influenced by elements within social life. Vygotsky's (1979) cultural-historical theory suggests that the social setting influences cognitive development. One should be aware of the signs and symbols that influence conscious thought. These thoughts ultimately led to the formation of the field of cultural psychology. Cultural psychologist study the influence of culture, tradition, and social practices on the psyche. Bandura's (1961) work introduced the concept of social learning theory where individuals adjust to what they observe within their social environment. The continuation of the work of these psychologists has evolved into the desire to study and understand the culture of organizations. Managers, as they tried to understand employee performance, began to consider the impact of work environment.

Understanding the culture of an organization became a topic of focus within the past 40 years. Schein (1984) provides a comprehensive description of organizational culture as

"The pattern of basic assumptions that a given group has invented, discovered, or developed in learning to cope with its problems of external adaptation and internal integration, and that have worked well enough to be considered valid, and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems". (p.3)

He also notes that culture

(1) is always in the process of formation and change; (2) tends to cover all aspects of human functioning; (3) is learned around the major issues of external adaptation and internal integration; and (4) is ultimately embodied as an interrelated, patterned set of basic assumptions that deal with ultimate issues, such as the nature of humanity, human relationships, time, space, and the nature of reality and truth itself. (p.14)

The culture of the organization is critical to the way employees feel about their integration into the work environment which ultimately affects their performance. The implications for their intrinsic and extrinsic motivation are influenced by the work environment. Cultural researchers study the relationships that mediate experiences and realities with the contextualist/realist investigation of historical, social, and political structures of power (Gall, Gall, & Borg, 2007). Organizations have historical, social, and political structures of power that influence employee performance (Bolman & Deal, 2008; Kontoghiorghes, 2004; Pfeffer, 1994; & Pfeffer & Sutton, 2006).

Organizations have embedded values that employees are expected to understand. This understanding is often intuitive for long-term employees but could be very difficult to ascertain by new employees. Bush (1987) identifies two types of values; ceremonial and instrumental. He states that ceremonial values "provide the standard of judgment for invidious distinctions, which prescribe status, differential privileges, and master-servant relationships, and warrant the exercise of power by one social class over another (p. 1080)." Organizations may not consider themselves in this way; however, some employees do have a tendency to view themselves as less than their managers. There is a socio-economic structure within organizations because of the pay differentiation that exists. This is one cultural difference within the workplace.

Bush (1987) defines instrumental values as "the standard of judgment by which tools and skills are employed in the application of evidently warranted knowledge to the problem-solving process of the community (p. 1080)." He notes that these values are not unchangeable, that they can evolve with time as the needs of the organization change. Instrumental values could be operationally defined

as organizational competencies. Regardless of if the competency is job-specific or a universal competency to the organization; it seems consistent with this concept of instrumental values.

1. Issues, Controversies, Problems

Organizations do not clearly acknowledge the perspective within which it is operating and often introduce new methods and procedures that are in direct contrast to their dominant perspective. Organizations operate from the cognitive, behavioral, and cultural perspective which could be introduced within the context of organizational design. If employees at all levels understand the perspective, better strategic planning and decision making could occur to enhance the competitive advantage of the organization.

No organization operates within just one perspective; however, one is more dominant. The combinations of the perspectives can be beneficial to organizations that are striving to understand organizational theory and behavior to successfully compete in the marketplace. They could better align people and technology within the known perspective.

2. Solutions and Recommendations

The PT conceptual model (Hughes, 2010) matches employee treatment to technology considerations using five key value associations as depicted through ten propositions. The PT model suggests that there are five key values: location, use, maintenance, modification, and time that are essential to increasing an organization' competitive advantage through people and technology. These values allow for equivalence in worth analysis regarding HRD's significance and technology development's significance to the organization as management makes economic and strategic decisions regarding people and technology within the organization (Vroom, 1973).

The use of PT could be incorporated into management practice if management would like to gain a competitive advantage (Espedal, 2005; Pfeffer, 1994). This model holds promise for addressing the cognitive, behavioral, and cultural perspectives of organizations. During organizational design organizations must consider the perspective (cognitive, behavioral, and/or cultural) that the organization is operating within.

Storberg-Walker (2005) noted the following:

HRD is about how people work together in organizational contexts, co-creating the processes, practices, norms, standards, and environment of the organization. Embedded within these processes lie three different types of capital, or value creation drivers: individual knowledge, skills, and attitudes (e.g., human capital); social relationships (e.g., social capital); and organizational systems (e.g., structural capital). Each of these three have the potential to create value for both the organization and the individual, and knowing how HRD changes or mediates the relationships between the three is critical to understanding how value is created in organizational contexts. (p. 329)

The PT model addresses the issues that Storberg-Walker opined. It provides a method of identifying how HRD changes and/or mediated the relationship between human capital, social capital, and structural capital through the cognitive, behavioral and cultural perspectives of the model.

Integration of the PT concept can provide an opportunity for value creation through:

1. The cognitive perspective & human capital: four independent variable constructs: teaching, learning, procedures and processes, and motivation.
2. The behavioral perspective & social capital: two independent variable constructs: technology's environmental impact and employee behavior within organizational culture.

3. The cultural perspective & structural capital: four independent variable constructs: embedded in the environment, adoption of culture norms, leadership by inspiration, and evidence-based management.

Understanding employees' location, use, maintenance, modification, and time value to an organization from the cognitive, behavioral, and/or cultural perspective can lead to better management practices within organizations.

FUTURE TRENDS

Organizations are continuously trying to gain a competitive advantage in the marketplace. They can accomplish this if they begin to strategically design organizational vision, mission, and goals within a perspective that is known to all within the organization. There are some organizations that clearly do this, but many that do not. For example, Google is an organization where employees are immersed in a strong cultural environment, and know that the cultural perspective is dominant. Google's culture is fundamental to its success, but its employees operate with cognitive strength. It is an innovative, technical company where the culture stimulates the cognitive strength of its employees. It also allows employees to think and operate freely to initiate new ways of mining Internet search data.

Gore Tex also is known to have a strong culture, so if there were a new business strategy such as Just in Time (JIT), lean manufacturing, International Organization of Standards (ISO), Total Quality Management (TQM), or Six Sigma that someone wanted to arbitrarily introduce to Gore Tex to try and enhance its people and process (Snell & Dean, 1992), it could be difficult. These strategies would be measured against the known culture of Gore Tex. In some organizations, it is unknown to employees if they are operating from the cognitive, behavioral, or cultural perspective, or if they may more readily accept these new strategies to the detriment of their organization's goals. They may look at the immediate needs and not the long-term implications of the decision (Gale, 1980).

The ability of organizations to integrate and value people and technology in the workplace is a critical need for the viability of the organization. The perspective within which the organization operates should determine the type of people they hire and the type of technology that they introduce. Change continues to be a constant as organizations thrive to remain competitive. Without organization design and change strategies within which the cognitive, behavioral and cultural perspectives are understood, improper decisions may be made that may limit the ability of the organization to compete. Some questions for future research to examine these issues include:

1. How do organizations determine their dominant operating perspective?
2. To what extent is this perspective impacting their bottom line?

Gale (1980) introduced the concept of value added. Value added can be used to measure "the physical output of each worker and the value of that output (Gale, 1980, p.79). It does not measure every aspect of an employee's productivity. The five values of people and technology development may assist HR managers and corporate leaders as they continue to strive to measure and understand people and technology's value to the organization.

CONCLUSION

Many organizations are making exorbitant profits daily, yet they are continuously working towards maintaining and/or enhancing their competitiveness in the marketplace. They try to save money by having the right amount or blend of people and technology so that they can achieve the highest possible return on investment (ROI) (Gale, 1980; Phillips, 2003). Proper integration of people and

technology requires direct planning that is objective and aligns with the organizational needs.

Clearly understanding organizations and the perspectives from which organizations develop their initiatives for performance is essential if managers want to remain competitive. The cognitive, behavioral, and/or cultural perspective is present within all organizations and can influence the productivity gains and competitive advantage of the organization. Integrating these perspectives at the organization design stage provides a fundamental grounding for the vision, mission, and goals of the entity.

REFERENCES

Ausubel, D. P. (1960). The use of advance organizers in the learning and retention of meaningful verbal material. *Journal of Educational Psychology*, *51*, 267–272. doi:10.1037/h0046669

Ausubel, D. P., & Youseff, M. (1963). Role of discriminability in meaningful parallel learning. *Journal of Educational Psychology*, *54*, 331–336. doi:10.1037/h0042767

Baker, S. (2008a, September 8). Management by the numbers. *Business Week*, pp. 32-36.

Baker, S. (2008b). *The numerati*. New York, NY: Houghton Mifflin.

Bandura, A., Ross, D., & Ross, S. A. (1961). Transmission of aggression through imitation of aggressive models. *Journal of Abnormal and Social Psychology*, *63*, 575–582. doi:10.1037/h0045925

Barnard, C. (1938). *The functions of the executive*. Cambridge, MA: Harvard UniversityPress.

Bolman, L. G., & Deal, T. E. (2008). *Reframing organizations: Artistry, choice, and leadership* (4th ed.). San Francisco, CA: Jossey-Bass.

Bower, M. (1966). *The will to manage: Corporate success through programmed management*. New York, NY: McGraw-Hill.

Bruner, J. S., Goodnow, J. J., & Austin, G. A. (1956). *A study of thinking*. New York, NY: Wiley.

Bruning, R. H., Schrawg, J., & Norby, M. M. (2011). *Cognitive psychology and instruction* (5th ed.). Boston, MA: Pearson.

Bush, P. D. (1987). The theory of institutional change. *Journal of Economic Issues*, *21*, 1075–1116.

Chomsky, N. (1959). A review of B. F. Skinner's "verbal behavior.". *Language*, *35*(1), 26–58. doi:10.2307/411334

Collins, J., & Porras, J. (1994). *Built to last*. New York, NY: HarperBusiness.

Cummings, T. G., & Worley, C. G. (2005). *Organizational development and change* (8th ed.). Mason, OH: South-Western/Thomson.

Davis, L., & North, D. (1970). Institutional change and American economic growth: A first step towards a theory of institutional innovation. *The Journal of Economic History*, *30*(1), 131–149.

Deming, W. E. (1982). *Out of the crisis*. Bambridge, MA: MIT Center for Advanced Engineering Study.

Dewey, J. (1910). *How we think*. Boston, MA: D. C. Heath & Co. doi:10.1037/10903-000

Drucker, P. F. (1999). Knowledge-worker productivity: The biggest challenge. *California Management Review*, *41*(2), 79–94.

Drucker, P. F. (2008). *Management* (rev. ed.). New York, NY: HarperCollins.

Egan, T. M. (2002). Organization development: An examination of definitions and dependent variables. *Organization Development Journal*, *20*(2), 59–70.

Espedal, B. (2005). Management development: Using internal or external resources in developing core competence. *Human Resource Development Review*, *4*(2), 136–158. doi:10.1177/1534484305276217

Galbraith, J. R., & Lawler, E. E. (1993). *Organizing for the future: The new logic for managing complex organizations*. New York, NY: Jossey-Bass.

Gale, B. T. (1980). Can more capital buy higher productivity? *Harvard Business Review*, *58*(4), 78–86.

Gall, M. D., Gall, J. P., & Borg, W. R. (2007). *Educational research: An introduction* (8th ed.). Boston, MA: Pearson.

Gredler, M. E. (2009). *Learning and instruction: Theory into practice* (6th ed.). Upper Saddle River, NJ: Pearson Education, Inc.

Hinings, C. R., & Greenwood, R. (2002). Disconnects and consequences in organization theory? *Administrative Science Quarterly*, *47*, 411–421. doi:10.2307/3094844

Hughes, C. (2010). "People as technology" conceptual model: Towards a new value creation paradigm for strategic human resource development. *Human Resource Development Review*, *9*(1), 48–71. doi:10.1177/1534484309353561

Jago, A. G., & Vroom, V. H. (1978). Predicting leader behavior from a measure of behavioral intent. *Academy of Management Journal*, *21*, 715–721. doi:10.2307/255711

Jenkins, J. J. (1974). Remember that old theory of memory? Well, forget it! *The American Psychologist*, *25*, 785–795. doi:10.1037/h0037399

Juran, J. M. (1989). *Juran on leadership for quality*. New York, NY: The Free Press.

Kontoghiorghes, C. (2004). Reconceptualizing the learning transfer conceptual framework: Empirical validation of a new systemic model. *International Journal of Training and Development*, *8*, 210–221. doi:10.1111/j.1360-3736.2004.00209.x

Maidique, M. A., & Hayes, R. H. (1984). The art of high-technology management. *Sloan Management Review*, *25*(2), 17–31.

Martinez, M. E. (2010). *Learning and cognition: The design of the mind*. Upper Saddle River, NJ: Pearson.

McLagan, P. (1989). *Models for HRD practice*. Alexandria, VA: American Society for Training and Development.

McLean, G. N. (2006). *Organization development*. San Francisco, CA: Berrett-Koehler.

McLean, G. N., & McLean, L. D. (2001). If we can't define HRD in one country, how can we define it in an international context? *Human Resource Development International*, *4*, 313–326. doi:10.1080/13678860110059339

Miller, G. A. (1956). The magical number seven, plus-or-minus two: Some limits on our capacity for processing information. *Psychological Review*, *63*, 81–97. doi:10.1037/h0043158

Mintzberg, H. (1998). Covert leadership: Notes on managing professionals. Knowledge workers respond to inspiration, not supervision. *Harvard Business Review*, *76*(6), 140–147.

Murphy, K. R. (1989). Is the relationship between cognitive ability and job performance stable over time? *Human Performance*, *2*(3), 183–200. doi:10.1207/s15327043hup0203_3

Neisser, U. (1967). *Cognitive psychology*. New York, NY: Appleton-Century-Crofts.

Olson, G. P. (2002). Organizing for the future. In Pierce, J. L., & Newstrom, J. W. (Eds.), *The manager's bookshelf: A mosaic of contemporary views* (6th ed.). Upper Saddle River, NJ: Prentice Hall.

Pavlov, I. P. (1927). *Conditioned reflexes*. London, UK: Routledge and Kegan Paul.

Pfeffer, J. (1994). *Competitive advantage through people: Unleashing the power of the workforce*. Boston, MA: Harvard Business School Press.

Pfeffer, J., & Sutton, R. I. (2006). Evidence-based management. *Harvard Business Review*, *84*(1), 62–75.

Phillips, J. J. (2003). *Return on investment in training and performance improvement programs* (2nd ed.). Burlington, MA: Elsevier Science.

Schein, E. H. (1984). Coming to a new awareness of organizational culture. *Sloan Management Review*, *25*(2), 3–16.

Schmidt, F., Hunter, J., & Outerbridge, A. (1986). Impact of job experience and ability on job knowledge, work sample performance, and supervisory ratings of job performance. *The Journal of Applied Psychology*, *71*, 432–439. doi:10.1037/0021-9010.71.3.432

Scott, W. R. (1987). The adolescence of institutional theory. *Administrative Science Quarterly*, *32*, 493–511. doi:10.2307/2392880

Scott, W. R. (2004). Institutional theory. In Ritzer, G. (Ed.), *Encyclopedia of social theory* (pp. 408–414). Thousand Oaks, CA: Sage.

Selznick, P. (1949). *TVA and the grass roots: A study of politics and organization*. Berkeley, CA: University of California Press.

Skinner, B. F. (1957). *Verbal learning*. New York, NY: Appleton-Century-Crofts. doi:10.1037/11256-000

Snell, S. A., & Dean, J. W. (1992). Integrated manufacturing and human resource management: A human capital perspective. *Academy of Management Journal*, *35*, 467–504. doi:10.2307/256484

Storberg-Walker, J. (2005). Towards a theory of human capital transformation through human resource development. In M. L. Morris & F. M. Nafukho (Eds.), *2005 Academy of Human Resource Development Annual Research Conference Proceeding,* (pp. 323-330). Bowling Green, OH: Academy of Human Resource Development.

Swanson, R. A., & Holton, E. F. (2001). *Foundation of human resource development*. San Francisco, CA: Berrett-Koehler Publishers.

Taylor, F. W. (1911). *The principles of scientific management*. New York, NY: Harper & Row.

Thorndike, E. L. (1898). Animal intelligence: An experimental study of the associate processes in animals. *Psychological Review Monograph Supplement*, *2*(4), 1–8.

Thorndike, E. L. (1911). *Animal intelligence*. New York, NY: Macmillan.

Tolman, E. C. (1932). *Purposive behavior in animals and men*. New York, NY: Century.

Tushman, M. L., & Anderson, P. (1986). Technological discontinuities and organizational environments. *Administrative Science Quarterly*, *31*, 439–465. doi:10.2307/2392832

Vroom, V. H. (1973). A new look at managerial decision making. *Organizational Dynamics*, *1*(4), 66–80. doi:10.1016/S0090-2616(73)80024-5

Vygotsky, L. S. (1979). Consciousness as a problem in the psychology of behavior. *Soviet Psychology, 176*(4), 3-35. (Originial work published 1924).

Walton, M. (1986). *The Deming management method*. New York, NY: Perigee.

Watson, J. B. (1913). Psychology as the behaviorist sees it. *Psychological Review*, *20*, 157–177. doi:10.1037/h0074428

Weber, M. (1964). *The theory of social and economic organization*. New York, NY: Free Press.

Welch, J. (2005). *Winning*. New York, NY: Collins.

Chapter 3
People as Technology

ABSTRACT

Chapter 3 introduces the concept of people as technology and describes technology development and people development within organizations. The relative value of people and technology is situational. Thus, competitive advantage and value are created from employee and technology development and the appropriate interaction of employee and technology within the organization. This chapter explores how these development initiatives may or may not relate to one another. The purpose of this chapter is to (1) examine some challenges of management to recognize similarities and differences between people and technology development, and (2) to leverage similarities and differences to create strategic advantage for the organization.

INTRODUCTION

Organizations say people are their greatest asset. Yet, they call them everything else, but an asset. In many organizations they are called employee, human resources, human capital, associates, union members, subordinates, indirect labor, direct labor, knowledge worker, among other names. Southwest Airlines is one of the few organizations that have a University for People.

As valuable assets, people should be acknowledged as such. To quote Juliet from Shakespeare's classic work *Romeo and Juliet* "What's in a name? That which we call a rose By any other name would smell as sweet" Romeo and Juliet (II, ii, 1-2).

The name is irrelevant; it is the substance of the character of the person that matters. Understanding the substance of the character of the people that work for the organization is what matters. As reported by Jack Welch (2005) "A middle-aged appliance worker who was at one Work-Out spoke for thousands of people when he told me, 'For twenty-five years, you paid for my hands when you could have had my brain as well - for nothing'"(p.56). Ramsey (1986) noted that employees are three dimensional: body [behavioral], spirit [cultural], and mind [cognitive]. She suggested that management only cares about the body and not the spirit and mind of the employee which reduces the employees' will and zeal to perform productively for the organization.

Chapter 3 introduces the concept of people as technology and describes technology development

DOI: 10.4018/978-1-4666-0240-3.ch003

and people development within organizations. This chapter explores how these development initiatives may or may not relate to one another. This chapter (1) examines some challenges of HR management and corporate leaders to recognize similarities and differences between people and technology development and (2) considers ways to leverage the similarities and differences between people and technology to create strategic advantage for organizations.

BACKGROUND

The increasingly important interaction between technology and people in a work setting requires immediate action; hence, the development of the concept *people as technology* (Hughes, 2010). To gain an advantage appropriate technology must be applied to the organizations' endeavors by employees who are appropriately trained to use the technology. Organizations must make suitable decisions for this to happen. Location, use, maintenance, modification, and time value considerations provide a context for making those decisions. Value is part tangible and part perception. The relative value of people and technology is situational. Thus, competitive advantage and value are created from employee and technology development and the appropriate interaction of employee and technology within the organization.

When asked to describe the meaning of *people as technology (PT)*, the easiest analogy that is instantly grasped is that of a desktop computer (the technology) contrasted against people. Typically, before a desktop computer (technology) is purchased, the purchaser knows where he plans to locate it. The purchaser may have to purchase a desk upon which to place it and clear out a little space in the room to locate it, but the location is known. The purchaser also has a good idea or knows how he intends to use the computer. He knows how he intends to maintain it and modify it with the necessary software and hardware for it to run efficiently and effectively. The amount of time he intends to keep the computer is also known. The same extent of knowledge is not evident when an individual plans to hire an employee. Thus, the purpose of the PT concept is to assist HR managers and corporate leaders with the process of thinking of people as they would think of technology in the workplace.

Managers may have an empty desk available, but is it the best location value for the person or the organization. There may have been a job description that the employee was expected to meet, but is that the only use value of the person to the organization? Is the maintenance value of the employee known? Are the employees capable of being developed as the job changes or is enriched or has the employee been hired just to meet an immediate need? Once the employee's modification value increases, is there still a place for them within the organization? Are they over qualified? What is the time value of the person to the organization? Was he hired for a period of business influx or was he hired to progress along with the organization? Is there a time at which the employee's value has exceeded the employee's length of service with the organization?

Reich (1992) in *The Work of Nations: Preparing Ourselves for 21st Century Capitalism,* suggested that there was no such thing as an American economy, that money, goods, and services have no borders; shared information about the skills that would be most valuable in the 21st century; and recommended ways a country could prepare all its citizens to share in the new global economy. Reich noted how, historically, American corporations were devoted to the nation through national defense endeavors and other means which helped to protect or create a stable economy. He described how Corporations lobbied the government to restrict foreign imports for the good of the nation. However, in today's economy, there was no longer a devotion to what was good for the nation as an incentive for American companies to create or maintain jobs in the U.S. He stated that

neither the profitability of a nation's corporations nor the successes of its investors necessarily improve the standard of living of most of the nation's citizens. Corporations and investors scour the world for profitable opportunities. They are becoming disconnected from their home nations. (p.8)

The incentive that guided their operational focus was where there was economic gain for the company regardless of where they were located in the world.

Reich (1992) also discussed the implications of how companies have become "global webs" making it hard to determine which nation represents its home base as far as taxes on imports and exports were concerned. He described the most common ways that companies were linked such that it was hard to distinguish how they were connected. Examples of their interconnectedness included:

1. **Independent Profit Centers:** Eliminated middle-level managers and pushes authority for product development and sales down to groups of engineers and marketers whose compensation is linked to the unit's profits.
2. **Spin-off Partnerships:** Strategic brokers in headquarters act as venture capitalists and midwives, nurturing good ideas that bubble up from groups of problem-solvers and identifiers and then (if the idea catches the market) spinning the groups off as independent business in which the strategic brokers at headquarters retain a partial stake.
3. **Spin-in Partnerships:** Good ideas bubble up outside the firm from independent groups of problem-solvers and identifiers. Strategic brokers in headquarters purchase the best of them, or form partnerships with the independents, and then produce, distribute, and market the ideas under the firm's own well-known trademark.
4. **Licensing:** Headquarters contracts with independent businesses to use its brand name, sell its special formulas, or otherwise market (that is, find applicable problems for) for its technologies.
5. **Pure Brokering:** Strategic brokers contract with independent businesses for problem solving and identifying as well as for production. (pp. 91-93)

Reich described how these entities constitute global webs and how this has misled some consumers and economists. He stated that although it has been publicized that big business had not created many jobs throughout the past decade, they in fact owned at least a portion, through the above mentioned linkages, of the small businesses that had been hiring employees. These associations made it easier for the high-value enterprises to attain profits which were derived "not from scale and volume but from continuous discovery of new linkages between solutions and needs" (p.85). These relationships were often tied to finding and leveraging the best people and technology that were capable of helping the organization achieve superior performance.

Reich (1992) also introduced his perspective of the three jobs of the future: *routine production services* involving repetitive tasks performed in the old, high-volume enterprises; *In-person services* which was similar to routine production services because it involves simple and repetitive tasks but these services must be provided person-to-person and were not sold worldwide; and *symbolic-analytic services* which involves problem-solving, problem-identifying, and strategic brokering and the ability to manipulate data, words, oral and visual representations. He felt that these three categories covered three out of four American jobs leaving farming-related and government jobs. Symbolic–analyst jobs such as engineering, lawyers, investment banking were seen to be the most financially rewarding and beneficial jobs to have in the global economy because they were knowledge-based and the worker controlled where, when, and how they would utilize their

skills and at what costs. The expansion of technology has made it possible for symbolic-analysts to sell their skills worldwide and acquire substantial income. They are continuously becoming richer because their income is not dependent on the American economy alone. The poor are becoming poorer because the rich do not have to share their knowledge or source of income with them in order to grow. They can cross borders through the ease of technology.

Reich's suggested solution was for America to become more of a community. He believed that the country had lost its economic, nationalistic ideas with the emergence of a global economy. There was a developing class system based on income and the lack of investment in the national community. Rich individuals were separating themselves from mainstream society and not paying taxes to help rebuild or expand the country's infrastructure, schools, etc. He felt that Americans needed to find a way to renew national solidarity for all its citizens. Reich's thoughts from his 1992 work are relevant today.

Organizations and employees need to adapt to the changes in society and become more proficient in research, development, and technological skills to become better problem solvers and identifiers. External conditions are always in flux (new competitors, new opportunities). Internal conditions continually change as well (new processes, new employees). Organizations and employees must be flexible to the situation that arises. Powell (1995) declared that "When the environment changes, you have to change with it and try to get ahead of it "(pp. 319-320). Employees often fall into the categories of routine production services or in-person services; therefore, organizations must work to help them acquire skills that will help them transition into symbolic-analyst positions. They must understand how the global economy and World Wide Web (WWW) are designed in order to effectively function. Knowledge will be an employee's only opportunity to survive as America becomes more economically divided, so organizations cannot falter in producing the most knowledgeable workers possible.

MAIN FOCUS OF THE CHAPTER

As technology advances, individuals together with corporations must be ready to adapt to new trends and incorporate new ideas into the workplace. In order for an individual or corporation to survive in a global and continuously changing workplace, they must be willing to learn new processes, develop new methods, and acquire and use the knowledge that is available and attainable. In today's dynamic and continuously changing, global workplace, learning and knowledge have become very important "commodities." Supply and demand for knowledge must be recognized and understood by leaders at all levels within the workplace. In essence, HR managers and corporate leaders must know and understand the knowledge base at present and determine what is needed to acquire and/or deliver the knowledge necessary to advance and accomplish company goals and objectives. These issues are explored by focusing on the role technology plays in the learning process (Wang, 2011), how workplace learning effects the competitive advantage strategy of a corporation (Lee & Lan 2007), and how to meet the demands for workplace learning by supplying the tools necessary to meet the needs of the workforce regardless of levels, and specific individual needs. The attainment of the above mentioned issues are crucial to the success of any corporation in today's work environment.

The idea of "People as a Technology" suggested that learning and knowledge be treated as a "commodity." Often in the workplace, a lot of time is spent developing new technology. Through this concept new equipment is bought and leaders evaluate its use = qualifications, maintenance = continuous training, location = cohesiveness in as-

signed environment, & modification = growth and change. (The left side of the equal sign describes how leaders, most often, treat new equipment or technology and the right side of the equal sign is how this author proposed that leaders treat people which would be equivalent to the amount of time and energy that is, typically, devoted to an inanimate object as opposed to a human being.) Leaders should review employees' qualifications, provide continuous training, place employees in suitable assignments, and provide them with opportunities for growth and change. To relate learning and knowledge to a commodity, HR managers and corporate leaders should evaluate the treatment of commodities from the time they are brought into the facility until they are presented to the consumer as a finished product. There is minimal limitation to the amount of attention given to commodities. At least, an equivalent amount of energy and effort should be granted to acquiring, maintaining, and using knowledge and learning opportunities that are available within the workplace. Employees at all levels should be presented to the customer and the community as knowledgeable, productive members of society. Within the global economy and the technology revolution, all employees need to be ready to professionally deal with issues as they arise.

Within organizations there are training departments and/or learning organizations that provide knowledge and learning opportunities as a "commodity" to enhance employee development; however, the methods and processes used must match the needs of each individual employee to the corporation's goals and objectives. As new technology and processes are developed or enhanced such as "the Internet, intelligent tutoring systems, learning objects and voice recognition" (Bassi, Cheney & Lewis, 1998; Wang 2011), the providers of learning opportunities for employees must be knowledgeable and able to assimilate those ideas into the workplace as needed. All trends that are developed may no longer be conducive to the growth of a company as consumers develop new interests. Also, employees within the workplace change or the company itself may change its strategy. Any issue that has an impact on an individual affects his ability to learn and obtain knowledge. For example, as equipment continues to become more automated and computerized, the training needs for an employee, who was hired prior to computers being a mainstay within an operation, can become a massive undertaking of knowledge and skill development. Fear is often a hindrance to their training. Their confidence may not be strong and the amount of motivation needed can be very high. All of these issues must be addressed and eliminated, without or minimally influencing efficiencies that are established based on customer demands and competition from competitors, both locally and globally. Harnessing the demands of an operation and supplying the training that is needed is a key to the survival of a company. There must be a "happy medium" achieved such that everyone benefits. The employee must be developed to operate the equipment, the efficiencies must be maintained, and company goals must be achieved.

Technology Development

Betz (1993) described technology in a firm as "the knowledge of the productive capabilities of the firm's businesses" (p. xv) and identified five basic principles of all technological innovation processes. The principles are:

1. Technology should be conceived of as a competitive factor within a business system.
2. New technological potential should be forecast.
3. Technology forecasts should be implemented through planned technology strategies.
4. New products using the new technology must be marketed with special attention to the problems of new markets.
5. Technology strategy and business strategy must be closely integrated.(p.9)

London and Diamante (2002) described technology-focused expansive individuals as early adopters of technology who continuously seek technological advancements, have the ability to acquire new technological knowledge and skills, and are fascinated by technological developments.

American organizations' ability to organize and manage technological development has been admired by other countries (Servan-Schreiber, 1967). Organizations such as General Electric (GE), Ford Motor Company, Boeing, and International Business Machines (IBM) all have international reputations for technological success. They are widely known as high-technology firms. Their ability to develop technology has been central to their survival and competitive advantage. Technology development remains critical to organizational success. Maidique and Hayes (1984) identified six themes for high technology development success within organizations. They are (1) business focus; (2) adaptability; (3) organizational cohesion; (4) entrepreneurial culture; (5) sense of integrity; and (6) "hands-on" top management (p.18). When organizations have successfully implemented the six themes, they have been successful in developing technology within their organizations.

Typically, there has been a detachment between people and technology from the perspective that the only people who have played a role in the initial integration of technology into the workplace have been upper management and engineering. After the technology has been purchased and installed, people who are supposed to ensure its function within the organizational processes have been engaged and told exactly what to do without any deviation from established processes and procedures. In some cases this approach has been wildly successful but in others it has led to abject failure if not total destruction of the firm. An example of where it has been a success was Henry Ford's introduction of mass production through the creation of the assembly line (Hounshell, 1984). Union Carbide's Bhopal disaster is a case where technology failed and the organization no longer exists.

Although the decision to introduce new technology or make enhancements to current technology is made by organization leaders, the implementation of these decisions rests with all stakeholders who have a role to play in its success. Betz (1993) noted that the overhead support to a firm include activities of technology development, human resource management, and firm infrastructure. He also described three kinds of technology which are used by any economic value – adding firm. They are:

1. Product technologies in the design of the firm's products,
2. Production technologies in the production of the firm's products, and
3. Service technologies in overhead functions that serve the direct productive activities of the firm and provide external services to customers. (p. 223)

The design of the technologies and the person(s) with the idea for these technologies must interact with the production teams and the service teams to ensure customer satisfaction. Technology by itself is not going to generate revenue if the customers do not know about the product or production cannot produce the product. Xerox and Apple learned these lessons well. Both companies were almost total failures. They created great technologies (Xerox and Apple with the first computer) but were not able to leverage their technology into production or sales.

Technologies are dependent upon human performance. Maidique and Hayes (1984) also suggested questions that must be answered to understand technology development. They questions were:

1. How technology works?

2. Its limits, as well as its potential (together with the limits and potential of competitor's technologies)
3. What these various technologies require in terms of technical and economic resources
4. The direction and speed of change.
5. The available technological options, their costs, probability of failure and potential benefits if they prove successful. (p.26)

These questions are not very different from the questions that should be asked when trying to understand people development.

1. How do people work?
2. What are employees' limits, as well as their potential (together with the limits and potential of competitor's people)?
3. What do these multidimensional people require in terms of technical and economic resources?
4. What is the direction and speed of employee change?
5. What are the available people options, their costs, probability of failure, and potential benefits if they prove successful?

Technology is introduced to the organization because it can provide multiple uses and flexibility within the current operation strategy of the firm. It is considered to be a great asset. Technologies are evaluated extensively to determine if they will integrate with current technological assets or sufficiently replace existing assets in a way that will be advantageous for the organization. The amount of disruption that will occur as a result of its introduction is also considered. Sometimes technology is not selected because it is the most advanced, but because it is the most reliable. It produces consistent results and generates revenue for the organization.

These characteristics are not very different from the impact that organizations would like to see from the people that work there. However, these expectations may not be properly conveyed to people when they enter the firm. Or, the expectations may be beyond the capabilities of the person who has been hired. Often the multidimensionality of the technology is known but the multidimensionality of the people is unknown. Organizations need to consider the five values of people and technology development to make not only better hiring decisions but also more effective change strategies.

People Development

People development is a major focus within today's US workplaces. During the Great Recession, reemployment has been limited because of workers' lack of knowledge for the jobs that are currently available. Manual workers from the construction industry and traditional manufacturing workers such as automotive suppliers make up a majority of the unemployed. From an economic theory standpoint, most business practice "sees manual workers as a cost. To be productive, knowledge workers must be considered a *capital asset*. Costs need to be controlled and reduced. Assets need to be made to grow" (Drucker, 1999, p.87). Although these words were written by Drucker over a decade ago, they are relevant today. Most of the historical manual labor in the US has been outsourced, off shore. Thus, the US workplace is seeking knowledge workers who can be consistently productive.

Kincheloe (1999) discussed the lack of respect given workers and how modernism has shaped our view of work and education by delineating the characteristics of positivism, the power of corporations, and their influence on politics, and the lack of democracy in the workplace. Kinecheloe was somewhat accurate in his assessments on the issues above. Some employers are concerned more with the attitude (or behavior) of workers rather than their mental capacity or social concerns. Modernism has shaped our view of work by delineating the characteristics of positivism.

Scientific knowledge, centered on numbers and measurable results, is the foundation upon which worker quality is based. It has reduced the emphasis on the worker himself. Often it does not matter why a worker did not produce and meet specified production numbers when it comes to discipline within the workplace. Goals must be met or workers will eventually be replaced. Very few reasons are accepted as excuses. Thus, the main focus of people development has been focused upon meeting the stated goals similar to how teaching to the test has become the mantra in public schools.

There is a lack of democracy within the workplace. There are definite divisions between managers and supervisors and supervisors and employees. There is no easy solution to this problem because there is a lack of trust that often goes unspoken. Workers want to see concrete, consistent examples of caring from management that will allow them to trust them (Ramsey, 1986). Frontline supervisors are the catalysts within organizations from which people development can begin. Supervisors are in positions to shape employees' view of the company and can help bring about change.

Drucker (1999) listed six major factors to determine knowledge-worker productivity. They are:

1. Knowledge-worker productivity demands that we ask the question: *"What is the task?"*
2. It demands that we impose the responsibility for their productivity on the individual knowledge workers themselves. Knowledge workers have to manage themselves. They have to have autonomy.
3. Continuing innovation has to be part of the work, the task and the responsibility of knowledge workers.
4. Knowledge work requires continuous learning on the part of the knowledge worker, but equally continuous teaching on the part of the knowledge worker.
5. Productivity of the knowledge worker is not – at least not primarily – a matter of the quantity of output. Quality is at least as important.
6. Finally, knowledge-worker productivity requires that the knowledge worker is both seen and treated as an "asset" rather than a "cost." It requires that knowledge workers want to work for the organization in preference to all other opportunities. (pp. 83-84)

Optimum quality must be the essential function of the knowledge-worker and Drucker (1999) suggested the need to define that quality. This author suggests that we learn to value the quality essence (the five values of people and technology development) of the employees.

Swanson (2007) defined Human Resource Development (HRD) as "a process of developing and unleashing human expertise through training and development and organization development for the purpose of improving performance" (p.331). He proposed that HRD is a process, "not profession or organizational function; the notion of human expertise, not just knowledge; the notion of systems/organization, not just individuals; and the notion of performance as a purpose that is of value to both the organization and the individual" (p. 331). There is often a perceived assumption that because one is paying for something, one will receive value. This may or may not be true.

Once an employee has been trained and is knowledgeable, that knowledge must be managed effectively. However, difficulties provide challenges to effectively managing knowledge. Following are some of difficulties identified by Ernst and Young's Center for Business Intelligence that are faced within corporations: Changing people's behavior; Measuring the value and performance of knowledge assets; Determining what knowledge should be managed; and Justifying the use of scarce resources for knowledge initiatives (Bassi, Cheney, & Lewis,1998). This list of challenges is common within organizations

because people change their own behavior, and the change occurs through processes such as shaping or modeling. They must be active participants in the process in order for it to be success and they must be provided with feedback and appropriate rewards or incentives to continuously progress.

As corporations continue to grow through mergers and the global economy, all employees must be trained and developed. Means of achieving learning and knowledge attainment goals are crucial to a corporation's survival. Many learning technologies have been developed and are continuing to be developed. Some of these technologies directly generate revenue and organizations are still learning how to integrate and effectively manage these technologies into current processes and procedures (Lee & Lan, 2007). Determining which are useful to an individual and/or corporation must be done with the utmost care and consideration of company strategy. Supplying the knowledge and skills to meet employee demands has to be done as efficiently as possible without sacrificing quality of the learning or knowledge required. The challenge and opportunities for achieving these objectives are as near as the Internet or as far away as a company who is unwilling to invest in the necessary tools and resources for achieving its goal; the commodities for producing the desired product or the "commodity" of learning and knowledge.

Although, there is myriad useful and informative information available to organizations for people development, it is critical that the information be assimilated and utilized as needed for each specific company. All companies do not operate in the same manner; therefore, just because a trend is producing superb results for one company, it could be detrimental to the success of another. How value is defined determines whether or not it is received. Carrig and Wright (2006) suggested that every organization "needs to prioritize its own outcomes" (p.20). They also suggest in their Value-Profit Chain (VPC) model that a firm should have core capabilities consisting of people, technology, and processes. They define "core capability as a group of people using a particular technology (or technologies) in a set of business processes to create a set of valued customer outcomes" (p.21). They opine that organization "success cannot be achieved by just bringing in really good people but not equipping them with technology or processes" [and that] "even more it is even truer that technology and processes without people are without value. It is people who design and execute processes. It is people who design, work with, and leverage technology" (p.21). Pfeffer (1994) also noted that "If competitive success is achieved through people, then the skills of those people are critical" (p.16). In today's knowledge economy, employees are asked to continuously learn to use continuously changing technology(ies). The time, money, and effort spent on research and development of new technology is forever increasing. Imagine the possibilities if an equivalent amount of that time, money, and effort were spent developing employees.

Issues, Controversies, Problems

Management's job is to preserve the assets of the institution in its care. What does this mean when the knowledge of the individual knowledge worker becomes an asset – and, in more and more cases, the main asset – of an institution? What does this mean for personnel policy? What is needed to attract and to hold the highest producing knowledge workers? What is needed to increase their productivity and to convert their increased productivity into performance capacity for the organization? (Drucker, 1999, p.88)

The concept of PT was inspired through practical efforts to help organizations strategically implement employee development and productivity projects through the optimal use of resources and services designed to help develop people, improve processes, better utilize equipment/technology,

expand communication and enhance career development. The concept of PT can also help resolve some of the questions introduced by Drucker.

Davis and North (1970) attempted to develop an institutional theory model that rooted the motivation for innovation in financial concepts. The authors identified three exogenous change agents that potentially put at risk institutional innovation. They are:

1. Potential income from arrangemental innovation might increase because some exogenous change could lead to the emergence of an externality where none existed before, to a restructuring of risks, to a shift in transaction costs, or to the application of a new technology subject to increasing returns.
2. The costs of organizing and/or operating a new institution might change because of the invention of a new arrangemental technology, of institutional change in the non-economic sector, or because the price of the factors used in the new or in competing existing institutions may change.
3. Some legal or political change might alter the economic environment and make it possible for some group to effect a redistribution or take advantage of an existing external profit opportunity. (p. 139)

Items two and three indicate the need for HRD (particularly 3). As cost and organizational leverage factors change or come at risk due to innovation (or potential innovation) HRD becomes a risk-mitigating factor. HRD as a function manages human capital risk (Bhattacharya & Wright, 2005) and thus allows organizations to maximize profit (which, per Davis and North, is the goal of any organization). How does HRD accomplish this? A myriad of ways; HRD in an organization may be tasked with managing through change, thus assisting in ensuring its acceptance within the organization. It may assist the organization as a whole in learning new technology or ways of behaving that the overall organization has identified as critical for innovative change. It may aid in mitigating external risks such as political or legal pressure by assisting the organization in complying with legal or political mandates.

Solutions and Recommendations

Organizations may not consider that there are strong alliances between people and technology. If they do, it is not very well communicated throughout the organization. Table 1 shows how technology development as identified by Maidique and Hayes (1984) and people development as defined by Drucker (1999) overlap with the five values of people and technology development. They each have elements of location, use, maintenance, modification, and time value.

FUTURE TRENDS

As organizations continue to evolve to meet production and service delivery needs within the global economy, it has to have knowledge workers and superior technology to be able to outperform their competitors. Organizations are seeking the best technology and the best people wherever in the world that they can find either. For example, call centers are using technology to offer customer service throughout the world. This trend is not lessening. The top job in America is projected to be Biomedical Engineering. To succeed in this career, the individual must be able to think and solve problems across biology, medical, and engineering fields of study. All facets of the individual's knowledge base must be used to succeed. As America seeks to create jobs, traditional fields of study are becoming obsolete, so are ways of studying. Online education and training are evidently the wave of the future and self-directed learning is becoming the norm. Being static and

Table 1. Comparing the five values of people and technology development to six themes of high technology development and the six major factors to determine knowledge-worker productivity

Hughes (2011) Five Values of People and Technology Development	*Maidique & Hayes (1984) Six Themes of High Technology Development*	*Drucker (1999, pp. 83-84)) Six Major Factors to Determine Knowledge-worker Productivity*
Location and Use	Business Focus	Knowledge-worker productivity demands that we ask the question: *"What is the task?"*
Modification	Adaptability	It demands that we impose the responsibility for their productivity on the individual knowledge workers themselves. Knowledge workers have to manage themselves. They have to have autonomy.
Location	Organizational cohesion	Continuing innovation has to be part of the work, the task and the responsibility of knowledge workers.
Use, Modification, Maintenance	Entrepreneurial culture	Knowledge work requires continuous learning on the part of the knowledge worker, but equally continuous teaching on the part of the knowledge worker.
Use and Time	Sense of Integrity	Productivity of the knowledge worker is not – at least not primarily – a matter of the quantity of output. Quality is at least as important.
Location	"Hands-on" Top Management	Finally, knowledge-worker productivity requires that the knowledge worker is both seen and treated as an "asset" rather than a "cost." It requires that knowledge workers want to work for the organization in preference to all other opportunities.

resistant to change will cause organizations and employees to be left behind.

Research analysis of the items in Table 1 will help organizations strengthen their focus of people and technology development and value the elements of both that will allow their organizations to grow and change.

CONCLUSION

The concept of PT has positive implications for organizational growth and development. The descriptions of technology and people development within organizations provide an in-depth analysis of their power to the organization. Examining and exploring how technology and people development may or may not relate to one another allows organizations to consider current practices. Imitation and improvement provides an organization with the ability to win as they compete in the marketplace (Welch, 2005). The PT concept offers one way for organizations to improve. Improvement begins with an objective consideration by management of the challenges that limit their ability to recognize similarities and differences between people and technology development and the willingness to leverage these similarities and differences to create strategic advantage for the organization.

REFERENCES

Bassi, L., Cheney, S., & Lewis, E. (1998). Trends in workplace learning: Supply and demand in interesting times. *Training & Development*, *52*(11), 51–75.

Betz, F. (1993). *Strategic technology management*. New York, NY: McGraw-Hill.

Bhattacharya, M., & Wright, P. M. (2005). Managing human assets in an uncertain world: Applying real world options theory to HRM. *International Journal of Human Resource Management*, *16*, 929–948. doi:10.1080/09585190500120574

Carrig, K., & Wright, P. M. (2006). *Building profit through building people: Making your workforce the strongest link in the value-profit chain*. Alexandria, VA: Society for Human Resource Management.

Davis, L., & North, D. (1970). Institutional change and American economic growth: A first step towards a theory of institutional innovation. *The Journal of Economic History*, *30*(1), 131–149.

Drucker, P. F. (1999). Knowledge-worker productivity: The biggest challenge. *California Management Review*, *41*(2), 79–94.

Hounshell, D. A. (1984). *From the American system to mass production, 1800-1932: The development of manufacturing technology in the United States*. Baltimore, MD: Johns Hopkins University Press.

Hughes, C. (2010). "People as technology" conceptual model: Towards a new value creation paradigm for strategic human resource development. *Human Resource Development Review*, *9*(1), 48–71. doi:10.1177/1534484309353561

Kincheloe, J. (1999). *How do we tell the workers? The socioeconomic foundations of work and vocational education*. Boulder, CO: Westview Press.

Lee, M. R., & Lan, Y. (2007). From Web 2.0 to conversational knowledge management: Towards collaborative intelligence. *Journal of Entrepreneurship Research*, *2*(2), 47–62.

London, M., & Diamante, T. (2002). Technology-focused expansive professionals: Developing continuous learning in the high-technology sector. *Human Resource Development Review*, *1*, 500–524. doi:10.1177/1534484302238438

Maidique, M. A., & Hayes, R. H. (1984). The art of high-technology management. *Sloan Management Review*, *25*(2), 17–31.

Pfeffer, J. (1994). *Competitive advantage through people: Unleashing the power of the workforce*. Boston, MA: Harvard Business School Press.

Ramsey, M. (1986). *The super supervisor*. Greensboro, NC: Positive Presentations, Inc.

Reich, R. B. (1992). *The work of nations: Preparing ourselves for 21st century capitalism* (Rev. ed.). New York, NY: Vintage Books.

Servan- Schreiber. J.-J. (1967). *The American challenge*. New York, NY: Atheneum Publishers.

Swanson, R. A. (2007). Theory framework for applied disciplines: Boundaries, contributing, core, useful, novel, and irrelevant components. *Human Resource Development Review*, *6*, 321–339. doi:10.1177/1534484307303770

Wang, M. (2011). Integrating organizational, social, and individual perspectives in Web 2.0-based workplace e-learning. *Information Systems Frontiers*, *13*, 191–205. doi:10.1007/s10796-009-9191-y

Welch, J. (2005). *Winning*. New York, NY: Collins.

Section 2
Development Initiatives

Chapter 4
Cognitive Initiatives

ABSTRACT

Organizations that operate within the cognitive perspective use cognitive initiatives to develop people and technology within the workplace. The cognitive initiatives that are most popular in today's workplace are teaching, learning, procedures and processes, and motivation. These initiatives are used to accomplish effective execution of organizational goals. Teaching and learning are often combined, but in this book, they will be explored separately. The objective of this chapter is to discuss ways that organizations that focus on the cognitive initiatives of teaching, learning, procedures and processes, and motivation in the workplace can succeed in the competitive marketplace through its people and technology development.

INTRODUCTION

According to Wittrock (1978) the cognitive movement "encourages research on comprehension, understanding and transfer" which are fundamental to education (p.15). He also stated that

A cognitive approach indicates that "learning from instruction is scientifically more productively studied as an internally, cognitively mediated process than as a direct product of the environment, people, or factors external to the learner. The approach involves understanding relations or interactions between the learners' cognitive processes and aptitudes, such as attribution, motivation, encoding, memory, cognitive styles, and cognitive structures, and the characteristics of instructional treatments. (p.15)

DOI: 10.4018/978-1-4666-0240-3.ch004

Essentially the person learns within himself and can be impervious to the influences and opinions of others. In cognitive organizations learners play an active and constructive role in their own learning, take responsibility, and are held accountable for what they know and learn. The scientific and technological revolutions led to revisions in methods of teaching and changes in the thought processes regarding the cognitive approach to learning and instruction.

Organizations that operate within the cognitive perspective use cognitive initiatives to develop people and technology within the workplace. The cognitive initiatives that are most popular in today's workplace are teaching, learning, procedures and processes, and motivation. These initiatives are used to accomplish effective execution of organizational goals. Teaching and learning are often combined, but in this book, they will be explored separately.

One cannot discuss cognitive initiatives in the workplace without considering the work of industrial and organizational psychologists and their research related to employee training. As early as 1932, Viteles was an advocate for training in the workplace to increase efficiency and improve individual adjustment. He noted that "A well-organized training program, based on a sound analysis of the job and applying well-established learning principles, enables the worker to employ the most effective methods in the performance of his task" (p. 393). Tiffin (1942) defined training as "the process by which, through some form of instruction, the necessary responses for correctly performing a job are developed" (p. 185). Ghiselli and Brown (1948), on the other hand, defined training as "a means of adjusting the worker in the working environment in such a way as to bring about the greatest returns to both the worker and the organization" (p. 308). Without a well understood purpose for and definition of training, it is difficult for organizations to develop people to the extent required to successfully implement work functions with or without the use of technology.

People are essential to effective work performance, yet their worth to the organization has been constantly debated and their voices are continuously being questioned. The 2011 labor dispute between Governor Walker of Wisconsin and the public employees union regarding collective bargaining is just one example.

The voice of the employee is critical within an organization that depends on the cognitive ability of the employee to be effective. To under estimate the value, cognitively, that employees place on being able to express and display their knowledge in the workplace can lead to extensive problems.

Myers (1925) argued a similar point as this author when questioning the development of people in the workplace. In regards to new workers learning bad habits from more seasoned employees he asked: "Who can doubt the importance of determining such undeniably wasteful methods of movement and of preventing the novice from falling into such bad habits of work? Yet how little provision is made of training the worker scientifically, i.e. systematically" (p. 100)! He argued for the use of professional trainers to inform the worker regarding task performance. He used some analogies from sport to make his case.

In the case of sport, e.g. ... in riding, skating or golfing, few of us would dispense with the instruction of a professional expert. But in the case of industrial work, the novice has in by far the majority of cases to pick up his methods as best he can, perhaps learning from a worker of experience who may, nevertheless, have acquired bad habits of movement, or from one who, if he has acquired good ones, may be quite useless as an instructor. (p.100)

Upon reading Myers' work, one has to question if we do not still have similar problems today. Many organizations still do not place great emphasis on training or may have someone who has the knowledge but does not know how to transfer that knowledge to others providing the training.

The objective of this chapter is to discuss ways that organizations that focus on the cognitive initiatives of teaching, learning, procedures and processes, and motivation in the workplace can succeed in the competitive marketplace through its people and technology development.

BACKGROUND

Teaching in organizations frequently occurs through training and development which has transitioned historically through various areas of organizations. These areas include on-site and off-site training consisting of: learning universities, corporate universities, training departments, executive education, workshops led by consultant(s), certificate programs, professional development, technology-delivered instruction (TDI), career and technical education programs, and formal degree

programs. Training on site was initially provided by the supervisor/expert to the employees. As jobs became more complex training experts were introduced into the workplace to teach workers and supervisors how to perform work duties and adhere to government regulations including labor laws (Kraiger & Ford, 2007).

Kincheloe (1999) describes the impact of society, economic stability and policy decisions on the state of vocational education. Historically, training that was provided to the American worker was obtained through vocational programs or schools. Many are still developed through these programs although the name has been changed, nationally, to career and technical education. Students who complete vocational programs are often said to be successful because of their auxiliary training and not the foundations that were established within their vocational curriculums; thus, there has been a strong push for integration of career and technical and academic education. This integration is sought so that the practical skills attained through career and technical education programs and the theoretical foundations within academia can be successfully combined. Numerous problems within industry today are a result of academics not communicating their theoretical ideas to individuals who can practically apply their ideas because they did not think they could comprehend the information. We cannot allow history to repeat itself by allowing career and technical education's impact on American society to be ignored.

The historical evolution of teaching through training in the workplace has been extensively chronicled. Kraiger and Ford's (2007) chapter on workplace training described four eras through which training or people development has evolved relevant to managing work within organizations. These eras were:

(a) the scientific management era (circa 1900-1930); (b) the human relations era (circa 1930-1960); (c) the participative management era (circa 1960-1990); and (d) the strategic learning era (circa 1990 to present). [They] contend[ed] that these time periods represent[ed] not only fundamentally different perspectives of organization work but also different perspectives on what is meant by learning and development. (p.281)

Their work chronologically shows that management did not begin to value the workers' humanistic persona until the 1930s; did not actually begin to value their knowledge until the 1990s; and the transformation of understanding the knowledge worker is still evolving today. Even though it was understood through Münsterberg (1913) that learning was needed for the worker to perform their job regardless of the level of the job. He stated that

Every form of economic labor in the workshop and in the factory, in the field and in the mine, in the store and in the office, must first be learned. How far do the experiments of the psychologist offer suggestions for securing the most economic method of learning practical activities? (pp. 145-145)

Practitioners and researchers are still trying to answer Münsterberg's question today even though Goldstein (1974) noted that "there is a wide gulf separating learning theories and principles from what is actually needed to improve performance" (p.92). This author suggests that understanding the worker from the cognitive perspective and instituting initiatives that value the cognitive ability of the worker is what is needed.

MAIN FOCUS OF THE CHAPTER

Teaching

Teaching is required if knowledge is to be passed from one individual to another. The traditional view of teaching is that it consists of telling

or instructing and "the learner is treated as 'an empty vessel' to be (inertly) filled with knowledge" (Fox, 2001, p.25). Teaching appears to place more emphasis on who is providing the information rather than placing emphasis on the learner. Further, teaching expects the learner to receive the information without inserting his own thoughts into the process. As workplaces try to quickly adapt to change, a paradigm shift away from the focus on the teacher to a focus on the learner is becoming more important. This shift away from the focus on the teacher to the focus on the learner would require HR managers and corporate leaders to determine ways to enhance the learners' ability to learn using all available materials and resources (Wang, 2011).

This paradigm shift is already evident in some ways through the use of simulations and computer-based instruction. The emergence of cloud computing is also contributing to the shift. Theoretical knowledge is becoming less valued while practical and immediately applicable knowledge is becoming more valued. This can be intuitively seen in the shifting of federal funding in the U.S. away from traditional four-year colleges and universities towards community and technical colleges to improve and increase the development of students who can be more quickly trained to enter the workplace. This can also be seen in the emphasis of government grant money being spent. Research and development funding is aimed towards Science, Technology, Engineering, and Mathematical (STEM) fields of study, Green Technology, and Department of Defense innovations and initiatives.

The term training is also used simultaneously with teaching in most workplaces. Training, however, is more of a behavior based term because it often deals with skill attainment as opposed to knowledge acquisition. One concern with teaching in the workplace is the type of workplace and the level of knowledge attainment that is needed for mastery of content (Bloom, 1968) to be perceived to have occurred. Some form of teaching or training occurs in all organizations; formally or informally. Thus, the understanding of the perspective or context from within which the organization predominantly operates becomes that much more important. For example, organizations that operate within the cognitive perspective, such as educational institutions, consulting firms, legal firms, hospitals, and investment firms, employees expect knowledge to be valued and these employees spend inordinate amounts of time mastering their knowledge content to effectively perform their job. They appreciate that they are expected to bring knowledge to the firm and teach that knowledge to their peers, clients, and/or customers as needed. They bring in-depth knowledge to the workplace. The complexity that arises in cognitive perspective workplaces occurs when workers begin to feel that their knowledge is being exploited or undervalued by the organization (Drucker, 1969). Thus, determining the value of employee knowledge contribution becomes the point of contention.

The strategies and materials needed to develop workers in organizations that operate within the cognitive context are much more intricate. The level of knowledge within these organizations is already high with most employees holding terminal degrees. Maintaining their level of knowledge to remain current in their field may not be something that can occur in-house, so the expenditures for external teaching and training become more expensive. Also, many individuals with this level of knowledge traditionally develop themselves through self-study, informal collaboration with peers, seminars, workshops, and professional conferences; however, those forms of skill acquisition techniques are often not specific in detail nor do they provide opportunities for participants to develop their skills through practice. Teaching initiatives to benefit this group must be collaboratively formed between the organization and the individual. Therefore, when needs are met, the benefits are evident for the organization, individual, and customer.

Learning

According to Silberman (1998), developers of learning strategies should focus on the kind of learning goal that is dictated by the *specific learning problem* the organization is trying to address:

1. Cognitive goals are the priority when there is a lack of knowledge. This is often referred to as a "don't know" situation.
2. Behavioral goals are the priority when there is a lack of skill. This is often referred to as a "can't do" situation.
3. Affective goals are the priority when there is a lack of desire or fear about using new knowledge or skills. This is often referred to as a "won't do" situation. (p.40)

Developers of cognitive initiatives can target one or all of these three goals; however, they may or may not be on target with the missions of the organization and/or the participants. Organizations are indeed trying to evolve to meet the cognitive needs of the employee. Some have begun to refer to themselves as learning organizations which suggests that they have the ability to learn, adapt, and/or change (Gephart, Marsick, Van Buren, & Shapiro, 1996; Levitt & March, 1988). To create the environment of a learning organization, employees must be willing to share their knowledge, management must encourage flexibility and experimentation on the job, and the culture must sustain the culture of learning once developed (Drucker, 1999; Tannenbaum, 1997).

Learning does not occur if there is not a transfer of knowledge. How this transfer occurs has been the basis of research studies for years (Baumgartel & Jeanpeiere, 1972; Goldstein, 1974; Leifer & Newstrom, 1980). Yet, there is still no definitive reason for transfer. The individual and the organization control the extent to which transfer occurs in today's complex work environments. When work consisted primarily of manual labor, it could be easily seen that transfer of ability was occurring despite some flaws in consistency of work performance. This author's contention is that transfer of knowledge is occurring tacitly within organizations.

The ability to capture the extent of knowledge transfer would be irrelevant if the organization is achieving its financial goals. However, there appears to be political posturing for job security for human resource professionals to say that they can justify their existence on the balance sheet of the organization. There is also a lack of acceptance from executives because there is no easy way to include tacit knowledge on the balance sheet (Welch, 2005). If training transfer were not occurring, would there be as much success within the business community and society as there is? The focus should not be on whether or not training transfer is occurring but to what extent it is occurring relative to the bottom line financial performance of the organization? In what ways has training results been manifested to enhance organizational performance? Most executives agree that they do not know when knowledge transfer occurred, know success when they see it, and will reward successful results.

The key element for trainers is to understand how much of the successful results credit is attributable to their job performance. If they maintain employment, can it then be said that training value is intuitive to the organization? If the training budget has been maintained or increased, can it be said that training is valued within the organization? What is the recognition level at which HRD professionals would view their presence as an accepted, vital part of organizational success? This author is not challenging the existence of a concern with regards to training transfer or acceptance, but the focus of a concept. After examining the work of Kraiger and Ford (2007), it would seem that workplace learning is still struggling to find an acceptable place within organizations when extensive work has been done internally and externally to show the value of learning to organizational success.

This author suggests a paradigm shift away from proving the necessity of training's existence, to a focus on acknowledgement of the value of people and technology, comprehensively, through a multidimensional understanding of the person and the technology used in the organization.

Historically, the value of people and how they learn in organizations has been viewed from a behavioral perspective and analysis of their actions. The constructivist view is relatively new in the workplace and has been debated because of the perception of teachers or trainers' lack of control over how and what the learner learns directly from interaction with the instructor. Yet, this type of learning is needed within organizations operating from a cognitive perspective in which learners are asked to solve problems and "think on their feet." Cognitive learning is supported by the constructivist view. Some of the ways constructivist theorists viewed cognitive learning are expressed in Table 1.

The constructivist view of learning is not without its critics. Fox (2001) provides contradictions to the constructivist view; however, this author believes that the context of the situation determines how relative and applicable his contradictions are with regards to constructivism. Within the context of k-16 education, his views may be accurate and valid for those types of learners, but in the context of the workplace his views are highly debatable. He suggests that constructivists operate in an absolutist way. It is their way without influences of other views. Some constructivists may be abstract in their application of the concept. That is not the case within this book. The social constructivist view is more prominently held by this author. Learners do not exist in isolation of their environment, ever.

Fox (2001) provided the following list to summarize the definition of the constructivist view of learning:

1. Learning is an active process.
2. Knowledge is constructed, rather than innate, or passively absorbed.
3. Knowledge is invented not discovered.

4a. All knowledge is personal and idiosyncratic.

4b. All knowledge socially constructed.

5. Learning is essentially a process of making sense of the world.

Table 1. Cognitive learning supported by constructivist view

Constructivist Belief	Authors
Learning in the cognitive orientation is viewed as an active, generative process where meaning and understanding must be constructed from experiences.	Neisser, 1967; Smith, 1975; Wittrock, 1978
It is recognized that meaning and comprehension (i.e., learning) is a function of the interaction between the organization of what is to be presented and the characteristics of individual students' own memory units.	Ausubel, 1978; Di Vesta, 1974; Johnson, 1975; Voss, 1978
Learning occurs as a result of self-regulated behavior including assimilation and accommodation.	Bandura, 1986; Piaget, 1970
Learning is a case of self-organization and internal restructuring.	Piaget, 1959
Learning is a constructive building process of meaning-making that results in reflective abstractions, producing symbols within a medium. These symbols then become part of the individual's repertoire of assimilatory schemes, which in turn are used when perceiving and further conceiving.	Vygotsky, 1987
Learning is not a result of development; learning is development.	Dewey, 1938; Kolb, 1984; Lewin, 1946; Piaget, 1970
Learning proceeds toward the development of structures. As learners struggle to make meaning, progressive structural shifts in perspective are constructed –in a sense, "big ideas"	Schifter & Fosnot, 1993

6. Effective learning requires meaningful, open-ended, challenging problems for the learner to solve. (p. 24)

This list does appear more appropriate for the workplace as opposed to the traditional classroom. However, with the number of working adults returning to the classroom it may be applicable there as well.

Procedures and Processes

Systems within typical, large organizations incorporate elements of formal organizations, informal organizations, external environments, and broader societal issues. The elements of formal organization include structures, policies, and procedures; elements of informal organization consist of norms, values, and people conditions; elements of external environments comprise technology, competition, and legislation; and elements of broader societal issues include women's rights and environmental quality.

Beckhard and Harris (1987) suggest that management of organizational transition and change requires managers to be able to manage the numerous requests generated by multiple constituencies, both inside and outside the organization.

Organizations operate within the constraints of three primary systems: social, political, and input-output. The social system consists of subsystems with a number of distinctive characteristics and goals, "but their activities must be coordinated or the parent system cannot function" (p. 24*)*. Political systems are centered on power and influence (Pfeffer, 1992). The purpose of political behavior or strategy which occurs frequently at the expense of others is to gain some advantage or leverage for an individual or group. Acting without regard for others within your own organization can be detrimental. Finally, organizations are input-output systems. They use and learn to perfect some process to convert inputs (human and material resources) into outputs (services or products) desired by their customers.

While all areas of the system uses procedures and processes, the input-output systems requires that procedures and processes be followed for optimum employee performance. Organized procedures and processes give direction and help to coordinate effort toward consistency of operations. They can also be used to reduce uncertainty and the impact of change while reducing overlapping and wasteful activities. The procedures establish objectives or standards that facilitate control within work processes.

Procedures and processes become institutionalized or normalized within organizations. In the past people were shown how to perform the mechanized procedures to do their jobs; however, as procedures and processes have become more complex, cognitive understanding is expected. People are expected to "think on their feet" and make necessary adjustments to procedures and processes as the need arises. However, they must also maintain consistency to meet quality standards and customer specifications. Procedures, in particular, were often "fixed" in the sense that there was no room for deviation by employees. The procedures were documented in standard operating procedures, quality manuals, and technical manuals to provide consistency; specifically in systems such as those required by the Industrial Organization of Standards (ISO). However, when problems arose, employees were limited in their ability to act. Thus, it became a necessity for organizations who wanted to succeed to depend upon the ability of the employee performing the job to solve problems that occurred within that job.

Developing a learning organization is an example of a process that requires cognitive focus at all levels of the organization. The learning organization process was introduced so that leaders could try to extract human capital or the knowledge residing in the heads of employees that is applicable to the function of the organization from the employees (Stewart, 1997).

Motivation

There are several motivational theories that have been introduced into the workplace to inspire employees to display peak performance on the job. Motivation is associated with retention in the workplace (Ramlall, 2004). Some of these theories include Maslow's (1987) hierarchy of needs theory, McGregor's (2006) Theory X and Theory Y, Herzberg's (1966) two-factor theory, or the motivation-hygiene theory; McClelland's theory of needs; goal setting theory; equity theory; Skinner's (1957) reinforcement theory; and this author's favorite, Vroom's (1995) expectancy theory. These theories have been used in the workplace with the premise of inspiring employees to perform at their best. The theories that are more cognitively based have been better received by employees. Skinner's reinforcement theory may have been the most used during the industrial revolution and the 20th century workplace, but as the workplace has changed to try and adjust to the knowledge worker, more emphasis is being placed on theories that inspire cognitive action from the employee.

The best-known approach to motivation is Maslow's (1987) hierarchy of needs theory. He hypothesized that human beings have an internal hierarchy of five needs: 1) Physiological needs—hunger, thirst, shelter, sex, and other bodily needs; 2) Safety needs—security and protection from physical and emotional harm; 3) Social needs—affection, a sense of belonging, acceptance, and friendship; 4) Esteem need—internal factors such as self-respect, autonomy, and achievement and external factors such as status, recognition, and attention; and 5) Self-actualization needs—the drive to become what one is capable of becoming; includes growth, achieving one's potential, and self-fulfillment. Physiological and safety needs were identified lower order and are predominately satisfied through external resources.

Social, esteem, and self-actualization were categorized as higher-order needs and are satisfied internally by the person. Within the context of the workplace and society, it can be inferred that in prosperous economic times, almost all permanently employed workers will have their lower-order needs substantially met. However, as the current workplace environment and 2008-2009 recession proved, these needs are becoming more precarious for middle class Americans to meet. Many lost jobs and homes with no foreseeable solutions. How do we motivate workers to continue looking for jobs to meet their lower-order needs during recessionary times?

McGregor (2006) proposed two distinct views of human beings: basically negative, labeled Theory X and basically positive, labeled Theory Y. Theory X consist of four assumptions that promote a negative connotation towards employees. Theory X implies that employees 1) inherently dislike work and, whenever possible, will attempt to avoid it; 2) must be coerced, controlled, or threatened with punishment to achieve desired goals since they dislike work; 3) will avoid responsibilities and seek formal direction whenever possible; and 4) place security above all other factors associated with work and will display little ambition. Theory Y has four positive assumptions regarding employees. They are that employees 1) view work as being as natural as rest or play; 2) who are committed to the objectives will exercise self-direction and self-control; 3) can learn to accept, and even seek responsibility; and 4) has the ability to make innovative decisions is widely dispersed throughout the population and is not necessarily the sole province of those in management positions. If one were to accept McGregor's analysis, one would assume that employees who embody Theory X would have lower-order needs and those who align with Theory Y would have higher-order needs. There is no known evidence that validates these assumptions.

One would hope to never experience working with Theory X employees in the workplace that is striving to remain competitive in a global economy.

Herzberg (1966) introduced the two-factor theory, or the motivation-hygiene theory investigating what people want from their jobs. His research showed significant difference between how people replied when they felt good or bad about their jobs. Certain characteristics of the job were divided based on whether they were internal or external factors that impacted how employees felt about their jobs. Internal factors included advancement, recognition, responsibility, and achievement which related to job satisfaction. Extrinsic factors included supervision, pay, company policies, and working conditions which related to job dissatisfaction. To motivate employees, Herzberg recommended emphasizing factors associated with the work itself or to outcomes directly derived from it including promotional opportunities and personal growth opportunities for employees. Focusing on the work itself is a great idea but cannot be done in isolation in the modern workplace.

There are too many extrinsic factors that affect the job itself or that the job effects, such as the environment. The 2011 radiation scare in Japan is a prime example of how the job can affect the environment. Were there not regulations established to mandate certain design characteristics of the nuclear plants, the situation would have been much worse, sooner. It cannot be assumed that because company policies and working conditions are restricted by union intervention or government regulations, that the job dissatisfaction should always be perceived as negative. In the eyes of the employees it may be negative, but it may be positive for the community, society, and the environment.

McClelland's (1961) Theory of Needs describes three needs of the individual: 1) The need for achievement (nAch) which is the drive to excel or striving to succeed by achieving in relation to a set of standards; 2) The need for power (nPow) which is the need to make others behave in a way they would not have behaved otherwise; and 3) The need for affiliation (nAff) which is the desire for friendly, close interpersonal relationships. If employees are able to meet these needs within the workplace, they may feel more comfortable there; however, a question remains regarding the extent to which each of these needs are to be met. What is the right amount of drive, power, and/or affiliation for the person to feel that their needs have been met?

Locke's (1969) Goal-Setting Theory is based on the idea that human action is purposeful and is directed by conscious goals. There is ample evidence that supports goal-setting theory as a contributing factor in motivation. Individual intentions are expressed as goals and can be a major source of work motivation. Goals can be short-term or long-term depending on the task to be accomplished (Latham & Locke, 1991). Aligning individual goals to organizational goals is a constant endeavor as organizations strive to remain competitive. The alignment of people and technological goals within organizations must be complementary for organizations to magnify the contributions of both.

Reinforcement Theory was Skinner's (1953) approach to motivation. It did not consider the cognitive ability of the individual and was a counterpoint to goal-setting theory. While goal setting theory is a cognitive approach which proposes that an individual's purposes direct his actions, reinforcement theory uses a behavioristic approach, which argues that reinforcement conditions behavior.

Equity theory (Adams, 1963) offered the assumption that employees weigh what they put into a job situation (input) against what they get from it (outcome) and then compare their input-outcome ratio with the input-outcome ratio of relevant others. Employee perception is the essence of equity theory. If they perceive equity of treatment then they feel that their situation is fair; that justice prevails. On the other hand if they perceive that their treatment is unequal, inequity exists; that is, the employees tend to view themselves as under or over rewarded and they feel that injustice is

present. Depending on the social context, when inequities occur, employees would attempt to correct them (Adams, 1965). The referent variable that employees choose to compare themselves against is important in equity theory. Typically, there are three referent categories in the workplace that are classified as "other," "system," and "self." The other category includes other individuals with similar jobs in the same organization and may also consist of friends, neighbors, or professional associates. The system category considers organizational pay policies and procedures as well as how this system is administered. The self-category refers to input-outcome ratios that are unique to the individual. This category is influenced by such criteria as past jobs or family commitments.

The most comprehensive explanation of motivation is expectancy theory (Vroom, 1995). Expectancy theory argues that the strength of a tendency to act in a certain way depends on the strength of an expectation that the act will be followed by a given outcome and on the attractiveness of that outcome to the individual. Three variables make up expectancy theory. They are: 1) Attractiveness—the importance the individual places on the potential outcome or reward that can be achieved on the job; 2)

Performance/reward linkage—the degree to which the individual believes that performing at a particular level will lead to the attainment of a desired outcome; and 3) Effort/performance linkage—the probability perceived by the individual that exerting a given amount of effort will lead to performance. The strength of a person's motivation to perform (effort) depends on how strongly he believes he can achieve what he attempts.

Vroom (1964, 1995) pioneered the development of expectancy theory for use in explaining work behavior. Since his initial study, many researchers have used expectancy theory to explain work behavior. As a result, many models have been designed, developed and modified to explain expectations, values and instrumentations. Porter and Steers (1973) focused upon the role that "met expectations" may have on withdrawal behavior of an individual. The authors described met expectations as the difference between the positive and negative experiences a person faces on the job and what he expected to encounter. Porter and Steers hypothesized that when an individual's expectations – whatever they are – are not substantially met, his propensity to withdraw would increase. Irving and Meyer (1995) believed that the met expectations hypothesis could be tested by utilizing difference scores reflecting the discrepancy between post-entry experiences and pre-entry expectations. Investigation found, however, that the difference scores produced artificial relations with outcome variables. The use of direct measures requires respondents to indicate how well their pre-entry expectations concerning their jobs were confirmed (Irving & Meyer, 1995). A weakness of direct measures of met expectations is that it requires individuals to recall (Bem, 1972) their prior expectations after having been on the job for some time. Individual recollections of pre-entry expectations are filtered by more recent experiences and behaviors (Irving & Meyer, 1995).

If expectations are established before attempting a task and the task aligns with organizational expectations, then it is a win-win situation for both the employee and the organization. Not enough emphasis is placed on expectancy theory in the workplace. Expectations should be incorporated into the vision, mission, and goals of the organization so that all stakeholders know what they are and can hopefully work together to meet them. There are some basic expectations that work well in organizations such as the expectation that all employees are to come to work when assigned. Most people adhere to this expectation with the understanding that they may be terminated if they do not. There is room for more expectations within the workplace to ensure clearer understanding of performance criteria.

Employees and organizational leaders have expectations that they bring to the organization.

These expectations can have a positive or negative effect on employee performance and organizational success (Lovallo & Kahneman 2003).

As leaders seek to implement the PT concept throughout organizations, there are three questions they should consider:

- *How does the expectation of the organization affect leaders' decisions?*
- *How does leaders' expectation of employees impact their decisions on the job?*
- *How do employees' decisions on the job impact the success of the organization?*

Organizations function best when managers and leaders are in sync. They must work together to implement technological and managerial changes as they occur. The blend of people and technology affects the overall success and/or failure of the organization. The use of the PT conceptual model could be incorporated into management practice if management would like to gain a competitive advantage (Espedal, 2005; Pfeffer, 1994). (Hughes, 2010, p. 61)

For many employees personal motivation, desire, and will are more important to their success than the influence of others.

Motivational Strategies

To understand the motivational theories identified above is not enough to motivate employees; therefore, organizations have developed motivational strategies to operationalize the theories within the workplace. One such strategy is Management by Objectives (MBO) (Drucker, 1954; Levinson, 1970; Odiorne, 1965). Establishing a MBO program requires employees' key job tasks to be identified; specific and challenging goals for each key task defined; the deadline for each goal specified; ensuring that employees actively participate when prioritizing and rating goals for difficulty and importance; building in feedback; and linking rewards to goal attainment. MBO emphasizes participatively established goals that are tangible, verifiable, and measurable. The appeal of this strategy is its ability to convert overall organizational objectives into specific objectives for organizational units and individual members; it works from the bottom up and from the top down.

There are four elements common to MBO programs: goal specificity, participative decision making, an explicit time period, and performance feedback. MBO and goal-setting theory are complementary because MBO advocates specific goals and feedback. Goal-setting theory demonstrates that hard goals result in a higher level of individual performance and that feedback on one's performance leads to higher performance. Consistent with goal setting theory, MBO would be most effective when the goals are difficult enough to require the person to do some stretching. MBO and goal-setting theory differ in terms of participation; MBO strongly advocates participation, while goal-setting theory demonstrates that assigning goals to subordinates frequently works just as well.

There is still room for improvement in both MBO and Goal-setting theory. Including elements of expectancy theory would strengthen the process. Although goals and objectives are established, there is no mention of whether or not the employee believes they are capable of attaining the goal or if the objective is the right objective for the amount of effort that is to be rewarded. When asking employees to stretch beyond their capability to achieve a goal; how does this request align with the reward system?

Some other motivational strategies include the five-step problem-solving model in Organizational Behavior (OB); Employee involvement; Variable-pay programs; and Skill-based pay.

1. The five-step problem-solving model in OB which includes identifying performance-related behaviors that significantly impact

the employee's job performance, measuring the behaviors, identifying behavioral contingencies, developing and implementing an intervention strategy, and evaluating performance improvement.

2. Employee involvement which has become a catchall term for a variety of techniques: employee participation, or participative management; workplace democracy; empowerment; and employee ownership. Employee involvement is designed to encourage increased commitment to the organization's success and thus, involves workers in decisions that will affect them and increase their autonomy and control. Its ultimate aim is to increase motivation, greater, commitment, more productivity, and more satisfaction of the employee.
3. Variable-pay programs are another way to motivate employees through piece-rate plans, wage incentives, profit sharing, bonuses, and gain sharing are all forms of variable-pay programs. These differ from traditional programs in that a person is paid not only for time on the job or seniority but for some individual or organizational measure of performance or both. Variable pay is compatible with expectancy theory predictions. The evidence supports the importance of this linkage, especially for operative employees working under piece-rate systems such as those in weaving mills and sewing plants. Group and organization-wide incentives encourage employees to sublimate personal goals in the best interests of their department or the organization.
4. Skill-based pay is an alternative to job-based pay. Its sets pay levels on the basis of how many skills employees have or how many jobs they can do. The appeal of skill-based pay plans is flexibility. There are some downsides however. People can "top out" relearning all the skills the program calls for them to learn, skills can also become obsolete; however, the employees must still remain current as the jobs change such as new equipment installation or process adjustments.

According to Ormond (1999), the general effects of motivation are to: 1) increase an individual's energy and activity level; 2) direct an individual toward certain goals; 3) promote initiation of certain activities and persistence in those activities; and 4) affect the learning strategies and cognitive processes an individual employs. Motivational theories encompass internal (intrinsic) and/or external (extrinsic) characteristics of the individual. Although motivation is not fully understood, it is does impact the cognitive ability of the individuals. Individuals come to programs with personal expectations and goals. They come with personal goals that center around a 'what's in it for me' mentality. Often if the program meets their personal needs, the individual sees it as having been a success. According to Cascio, motivation of trainees to do well in training depends upon four factors: (1) a favorable work environment; (2) a belief in the soundness of the judgment by others that the trainee has strengths or weaknesses that training can improve on; (3) a personal belief in one's ability to master the content of the training (high self-efficacy); and (4) a belief on the part of the trainee that successful completion of the program will lead to outcomes that he or she personally values (personal development, promotion, an increase in pay) .

ISSUES, CONTROVERSIES, PROBLEMS

Learning organizations, although popular throughout the 1990s are not prevalent today. The concept is easy to say but difficult to implement because of the time commitment involved. It is a process or system that takes time, time that many organizations do not have to adjust to change. Senge (1990)

introduced the five disciplines of systems thinking, personal mastery, mental models, shared vision and team learning as the components to a learning organization. These five components all are components that must be understood cognitively by the employees for the organizations to achieve success through its learning strategies. It would befit organizations to focus on the perspective(s) within which it operates before designating itself as a learning organization or by any other faddish title. If they operate within the cognitive perspective, it should focus on the initiatives that will help it achieve its goals that align with that perspective.

Solutions and Recommendations

Throughout this chapter there are teaching, learning, processes and procedures, and motivation related initiatives that are cognitively based that can be further developed to help organizations determine if they operate predominantly from the cognitive perspective and align itself accordingly. This realignment may require elimination of costly activities that have not strengthened the effectiveness of the organization or its people. Lee and Allen (1982) note that there are three general ways for technical staff in research and development to remain current about and have the potential to introduce new technology into the workplace. They are:

1. Through readership of the scientific and engineering literature and other forms of documentation.
2. Through contact directly or indirectly with knowledgeable individuals outside the organization.
3. Through hiring and assimilation of new technically trained personnel. (p. 1405)

These suggestions all align within the cognitive perspective. Organizations can still be flexible within its designated perspective because there are many options available. They can introduce career development strategies for employees that align with its perspective. Training and education that a career development participant receives must be relevant to what they are doing and to what the organization that they are working for expects. There should be constant feedback mechanisms available throughout the process to ensure relevancy.

Organizations can also integrate different forms of evaluation to measure the compatibility of its initiatives to its perspective. Formative evaluations are useful because they are implemented and executed throughout the development stage of the process. They consist of one-to-one interviews, focus groups, pilot tests, observations, and surveys while developing a new program or training session. It allows the developers and participants to communicate prior to implementation and during delivery of the program or training. It does not have to be complicated, and it helps the organization save money and time because they can abort at any stage in the process. This is also a great place to institute expectancy theory questions and monitor whether or not expectations of all stakeholders are being met throughout the process. Formative evaluation provides an objective method of maintaining constant communication between participants and developers to enhance the process.

The summative evaluation process allows for an overall review of the program. Implementation of a summative evaluation after having completed formative evaluations of a program will provide a more accurate view of the overall success of the program. Failure points should have been rooted out during the formative phase and the summative evaluation should be more accurate and reflective of the accomplishments. Regardless of the types or methods of evaluation, providing a system of feedback to all stakeholders is essential to the success of any initiative.

The cognitive perspective can be measured through use, maintenance and modification value (see chapters 8-10). Legal, investment and

educational firms which depend upon the cognitive ability of employees such as McKinsey and Company and higher education institutions could be studied using the cognitive aspect of the PT model (Hughes, 2010).

FUTURE TRENDS

Many initiatives that are used to develop people and technology require the use of cognitive ability. To extend beyond the strategic learning era, organizations must begin to accept tacit knowledge if they are meeting financial and specific performance goals. Helping to derive and implement strategies that are successful in the workplace requires an understanding of the employees' cognitive perspective of their location, use, maintenance, modification, and time value within the organization. This understanding may lead HRD professionals/researchers to development of better teaching, learning, procedures and processes, motivational adjustments to enhance these values. Schmidt, Hunter, & Outerbridge (1986) developed a causal model which showed cognitive ability as the single most important cause of job performance, and that the relationship between cognitive ability and job performance remains invariant or grows stronger over time. However, Murphy (1989) noted some instability in skilled performance; however, the study did not take into consideration the job environment along with the job itself. Much of the current research attempts to isolate the job and determine characteristics based upon the job itself. The focus should be to recognize that jobs, people, nor technology exists in a vacuum. There are multi-dimensional characteristics associated with each independently and interdependently within the workplace. Even within our individual based use of iPads, iPhones, and other supposedly smart technologies that are independently owned, technology is deemed irrelevant if no one responds from the other end of the communication device.

CONCLUSION

Wittrock (1978) noted that

From a cognitive point of view, accountability pertains to every person involved with the instruction. The teacher is responsible for teaching; the learner is responsible for learning; which is an internal process involving attention and the mental elaboration of information. A cognitive approach also raises serious questions about the effects upon learners of the belief that someone else controls and is accountable for their learning. The belief may foster dependency, retard student effort, and retard the development of a positive self-concept and of a feeling of ability to influence one's own learning. (p. 19)

This may help to explain workplace inaction when employees do not feel that they control what and how they learn. In cognitively based workplaces, it is essential that the learner is motivated and feels empowered to influence aspects of his own learning. The key for many organizations is to determine how much effort from the learner, the trainer or educator, and the organization is needed for it to be successful in its endeavors. Attributing failure to lack of effort would be the focus of attention when there is not a lack of ability which is often the case in cognitively based organizations. When

learning is believed to be an internally mediated process that the learners can influence through their effort and hard work, the consequences for the students go beyond the mastery of subject

matter to include possibly the development of a sense of self-control over one's destiny and a sense of personal responsibility for one's behavior. (Wittrock 1978, p.20)

In today's knowledge based workplaces that depend upon the cognitive ability of workers implementing cognitively based initiatives, workers need to feel that they have some control over what and how they do their work. Organizations have to ensure that there is not a cultural mismatch between its people and the initiatives that are used to develop them. "From the cognitive perspective, the human mind is appreciated as a personal entity capable of reasoning, solving problems, and learning complex information. The mind also feels emotions and has intentions; it has goals and plans" (Martinez, 2010, p.6). Organizations currently thrive on the minds of some of its people through individual effort and group performance. In a globally competitive arena, organizations must begin to appreciate and value the minds of all its employees to enhance its competitiveness. Differences between people must come secondary to the goals of the organization. It is no longer acceptable to selectively dismiss and ignore the minds of employees and still compete in today's economy. The Internet has leveled the playing field and even single person companies and ideas are defeating large conglomerates in the marketplace.

REFERENCES

Adams, J. S. (1963). Toward an understanding of inequity. *Journal of Abnormal and Social Psychology*, *67*, 422–436. doi:10.1037/h0040968

Adams, J. S. (1965). Inequity in social exchange. *Advances in Experimental Social Psychology*, *2*, 267–299. doi:10.1016/S0065-2601(08)60108-2

Ausubel, D. (1963). *The psychology of meaningful verbal learning*. New York, NY: Holt, Rinehart & Winston.

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. New York, NY: Prentice Hall.

Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: W. H. Freeman.

Baumgartel, H., & Jeanpeiere, F. (1972). Applying new knowledge in the back home setting: A study of Indian managers' adoptive efforts. *The Journal of Applied Behavioral Science*, *8*, 674–694. doi:10.1177/002188637200800603

Beckhard, R., & Harris, R. T. (1987). *Organizational transitions: Managing complex change* (2nd ed.). Reading, MA: Addison-Wesley Publishing Company.

Bem, D. J. (1972). Self-perception theory. In Berkowitz, L. (Ed.), *Advances in experimental and social psychology* (*Vol. 6*, pp. 1–62). New York, NY: Academic Press.

Bloom, B. (1968). Learning for mastery. *Evaluation Comment*, *1*(2), 1–12.

Cohen, W. M., & Levinthal, D. A. (1990). Absorptive capacity: A new perspective on learning and innovation. *Administrative Science Quarterly*, *35*(1), 128–152. doi:10.2307/2393553

Di Vesta, F. J. (1974). Cognitive structures and symbolic processes. *Teachers College Record*, *75*, 357–370.

Drucker, P. F. (1954). *The practice of management*. New York, NY: Harper.

Drucker, P. F. (1969). *The age of discontinuity*. Woburn, MA: Butterworth-Heinemann.

Drucker, P. F. (1999). Knowledge-worker productivity: The biggest challenge. *California Management Review*, *41*(2), 79–94.

Espedal, B. (2005). Management development: Using internal or external resources in developing core competence. *Human Resource Development Review*, *4*(2), 136–158. doi:10.1177/1534484305276217

Fox, R. (2001). Constructivism examined. *Oxford Review of Education*, *27*(1), 23–35. doi:10.1080/03054980125310

Gephart, M. A., Marsick, V. J., Van Buren, M. E., & Spiro, M. S. (1996). Learning organizations come alive. *Training & Development*, *50*, 56–66.

Ghiselli, E. E., & Brown, C. W. (1948). *Personnel and industrial psychology*. New York, NY: McGraw-Hill.

Goldstein, I. L. (1974). *Training: Program development and evaluation*. Monterey, CA: Brooks/Cole.

Herzberg, F. (1966). *Work and the nature of man*. Cleveland, OH: World.

Hughes, C. (2010). "People as technology" conceptual model: Towards a new value creation paradigm for strategic human resource development. *Human Resource Development Review*, *9*(1), 48–71. doi:10.1177/1534484309353561

Irving, P. G., & Meyer, J. P. (1995). On using direct measures of met expectations: A methological note. *Journal of Management*, *21*, 1159–1176. doi:10.1177/014920639502100608

Johnson, R. E. (1975). Meaning in complex learning. *Review of Educational Research*, *45*, 425–459.

Kincheloe, J. (1999). *How do we tell the workers? The socioeconomic foundations of work and vocational education*. Boulder, CO: Westview Press.

Kraiger, K., & Ford, J. K. (2007). The expanding role of workplace training: Themes and trends influencing training research and practice. In Koppes, L. L. (Ed.), *Historical perspectives in industrial and organizational psychology*. New York, NY: Psychology Press.

Latham, G. P., & Locke, E. A. (1991). Self-regulation through goal setting. *Organizational Behavior and Human Decision Processes*, *50*, 212–247. doi:10.1016/0749-5978(91)90021-K

Lee, D. M. S., & Allen, T. J. (1982). Integrating new technical staff: Implications for acquiring new technology. *Management Science*, *28*, 1405–1420. doi:10.1287/mnsc.28.12.1405

Leifer, M. S., & Newstron, J. W. (1980). Solving the transfer of training problems. *Training and Development Journal*, (August): 42–46.

Levinson, H. (1970). Management by whose objectives? *Harvard Business Review*, *48*(4), 125–134.

Levitt, B., & March, J. G. (1988). Organizational learning. *Annual Review of Sociology*, *14*, 319–340. doi:10.1146/annurev.so.14.080188.001535

Lewin, K. (1946). Action research and minority problems. *The Journal of Social Issues*, *2*(4), 34–46. doi:10.1111/j.1540-4560.1946.tb02295.x

Locke, E. A. (1969). Purpose without consciousness: A contradiction. *Psychological Reports*, *25*, 991–1009. doi:10.2466/pr0.1969.25.3.991

Lovallo, D., & Kahneman, D. (2003). Delusions of success: How optimism undermines executives' decision. *Harvard Business Review*, *81*, 56–63.

Martinez, M. E. (2010). *Learning and cognition: The design of the mind*. Upper Saddle River, NJ: Pearson.

Maslow, A. (1987). *Motivation and personality* (3rd ed.). New York, NY: Harper & Row.

McClelland, D. C. (1961). *The achieving society*. New York, NY: Free Press.

McGregor, D. (2006). *The human side of enterprise, annotated edition*. New York, NY: The McGraw-Hill Companies, Inc.

Mitchell, T. (1974). Expectancy models of job satisfaction, occupational preference and effort: A theoretical, methodological, and empirical appraisal. *Psychological Bulletin*, *81*, 1053–1077. doi:10.1037/h0037495

Münsterberg, H. (1913). *Psychology and industrial efficiency*. Boston, MA: Houghton Mifflin. doi:10.1037/10855-000

Murphy, K. R. (1989). Is the relationship between cognitive ability and job performance stable over time? *Human Performance*, *2*(3), 183–200. doi:10.1207/s15327043hup0203_3

Myers, C. S. (1925). *Industrial psychology*. New York, NY: The People's Institute Publishing Company.

Neisser, U. (1967). *Cognitive psychology*. New York, NY: Appleton-Century- Crofts.

Odiorne, G. S. (1965). *Management by objectives: A system of managerial leadership*. New York, NY: Pitman Publishing.

Ormond, J. E. (1999). *Human learning* (3rd ed.). Upper Saddle River, N J: Prentice-Hall Inc.

Pfeffer, J. (1992). *Managing with power: Politics and influence in organizations*. Boston, MA: Harvard Business School Press.

Pfeffer, J. (1994). *Competitive advantage through people: Unleashing the power of the workforce*. Boston, MA: Harvard Business School Press.

Piaget, J. (1959). *The language and thought of the child*. London, UK: Routledge.

Piaget, J. (1970). *Structuralism*. New York, NY: Basic Books.

Porter, L. W., & Steers, R. M. (1973). Organizational, work, and personal factors in employee turnover and absenteeism. *Journal of Management*, *80*, 151–176.

Ramlall, S. (2004). A review of employee motivation theories and their implications for employee retention within organizations. *Journal of American Academy of Business, Cambridge*, *5*(1/2), 52–63.

Schifter, D., & Fosnot, C. T. (1993). *Reconstructing mathematics education: Stories of teachers meeting the challenge of reform*. New York, NY: Teachers College.

Senge, P. (1990). *The fifth discipline: The art and practice of the learning organization*. New York, NY: Doubleday.

Silberman, M. (1998). *Active training* (2nd ed.). San Francisco, CA: Jossey-Bass/Pfeiffer.

Skinner, B. F. (1953). *Science and human behavior*. New York, NY: Macmillan.

Skinner, B. F. (1957). *Verbal learning*. New York, NY: Appleton-Century-Crofts. doi:10.1037/11256-000

Smith, F. (1975). *Comprehension and learning*. New York, NY: Holt, Rinehart & Winston.

Stewart, T. A. (1999). *Intellectual capital: The new wealth of organizations*. New York, NY: Doubleday.

Tannenbaum, S. I. (1997). Enhancing continuous learning: Diagnostic findings from multiple companies. *Human Resource Management*, *36*, 437–452. doi:10.1002/(SICI)1099-050X(199724)36:4<437::AID-HRM7>3.0.CO;2-W

Tiffin, J. (1942). *Industrial psychology*. New York, NY: Prentice-Hall. doi:10.1037/11230-000

Viteles, M. S. (1932). *Industrial psychology*. New York, NY: Norton.

Voss, J. (1978). Cognition and instruction: Toward a cognitive theory of learning. In Lesgold, A., Pellegrino, J., Fokkema, S., & Glaser, R. (Eds.), *Cognitive psychology and instruction* (pp. 13–23). New York, NY: Plenum.

Vroom, V. H. (1964). *Work and motivation*. New York, NY: John Wiley & Sons, Inc.

Vroom, V. H. (1995). *Work and motivation*. San Francisco, CA: Jossey-Bass.

Vygotsky, L. S. (1987). *The collected works of L.S. Vygotsky* (Rieber, R. W., & Carton, A. S., Eds.). *Vol. 1*). New York, NY: Plenum Press.

Wang, M. (2011). Integrating organizational, social, and individual perspectives in Web 2.0-based workplace e-learning. *Information Systems Frontiers*, *13*, 191–205. doi:10.1007/s10796-009-9191-y

Wittrock, M. C. (1978). The cognitive movement in instruction. *Educational Psychologist*, *15*, 15–29. doi:10.1080/00461527809529192

Chapter 5
Behavioral Initiatives

ABSTRACT

Organizations that operate within the behavioral perspective often focus more on the technological impact within the workplace environment rather than employee roles. They have been accused treating people as if they are technology since the feelings and emotions of the individual are not valued. They fail to appreciate the intrinsic worth of the individual (Lepper, Greene, & Nisbett, 1973). Behaviorists are "interested only in what can be observed directly" (Martinez, 2010, p.6) and since the internal feelings and emotions of people cannot be directly observed, it often goes unacknowledged. It becomes a matter of controlling employee behavior as opposed to understanding their behavior. The purpose of the chapter is to: (1) review behavioral initiatives and how technology has impacted the workplace environment; (2) employee behavior within organizational culture; and (3) examine how organizations that use the behavioral perspective align their people initiatives with their technological initiatives and goals.

INTRODUCTION

Employee behavior in the workplace has been both the source of elation and frustration for HR managers and corporate leaders. When employees behave as expected, managers may express joy, despite the fact that some managers do not know how to show appropriate appreciation to the employee, for a job well done. When employees behave unexpectedly, they may receive correction so that they can improve or may be shown disapproval through termination. The typical employee wants to do a good job. People, through their jobs, are generally striving to improve their lives and their families' without damaging others.

Behavior is directly associated with what people do. What people do can be directly observed and judged even if they do not know why they did what they did. Behavioral researchers have focused on what and definitely not why people do what they do especially with regards to workplace performance. In direct contrast to the cognitive perspective, Wittrock (1978) described his perception of Skinner's (1957) ability to introduce reinforcement into instruction. He noted that Skinner

emphasized the use for instruction of the notion that the environment, not the learner, determines

DOI: 10.4018/978-1-4666-0240-3.ch005

the products of learning, the behaviors. This important concept led to the death of the mind, to accountability for teachers, who are part of the learners' environment, and to behavioral objectives, which are necessary if one teaches by associating behavior, rather than thoughts, to stimuli by frequently, immediately, and repeatedly reinforcing successive approximations of the desired behavior. (p.17)

Witt rock felt that Skinner's view did not value the person; that Skinner gave the environment and behavioral objective more credit for the person's learning than the mind and action of the person themselves. Skinner's concept also became the predominant viewpoint of workplace learning. Traditionally, learners in the workplace were not expected to think but to do only what they were told to do by their superiors.

Organizations that operate within the behavioral perspective often focus more on the technological impact within the workplace environment rather than the roles of employee. They have been accused of treating people as if they are technology since the feelings and emotions of the individual are not valued. They fail to appreciate the intrinsic worth of the individual (Lepper, Greene, & Nisbett, 1973). Behaviorists are "interested only in what can be observed directly" (Martinez, 2010, p.6), and since the internal feelings and emotions of people cannot be directly observed, it often goes unacknowledged. Subsequently, it becomes a matter of controlling employee behavior as opposed to understanding their behavior. Some means managers can use to control employee behavior in the workplace are: selection, new employee orientation, mentoring, goals, job design, formal regulations, direct supervision, training, performance appraisal, and organizational rewards. The use of these means has produced mixed results for organizations with respect to developing people and technology within the workplace. On-the-job training initiatives are more prevalent in behavioral based organizations. These types of organizations depend on skill transfer occurring quickly so that there is little productivity loss during technology or people development.

The objectives of this chapter are to: (1) review behavioral initiatives and how technology has affected the workplace environment; (2) review employee behavior within organizational culture; and (2) examine how organizations that use the behavioral perspective align their people initiatives with their technological initiatives and goals.

BACKGROUND

Taylor (1911) introduced scientific management into the workplace. Behaviorist adopted and indoctrinated the methodological application of behaviorism (Watson, 1913) in the workplace and its application appears to be scientifically based. With the development of attribution theory (Weiner, 1985) provided explanations of how we judge people differently depending on what meaning we attribute to a given behavior. The attribution theory suggests that observing human behavior helps us determine whether the manifestation of the behavior is due to internal or external factors. This theory further suggests that the determination of the root of the behavior depends on three factors: 1) distinctiveness, (2) consensus, and (3) consistency.

Organizations, especially those that produce products, have long operated within the behavioral tradition. In such organizations, the production lines and all associated activities have been based upon behaviorist theory. The quintessential behaviorist philosophy in the workplace is do exactly what your supervisor tells you to do, no more and no less. This concept is perceived as highly dysfunctional today, but in workplaces of the past, it is what made the American workplace the most dominant of workplaces worldwide. The goods produced were mass produced, and people had jobs that propelled them into the middle class of American society.

For profit organizations existed to make money (Friedman, 1970). Thus, they measured inputs and outputs in a systematic way. One of these inputs is the people who work for the organization. As long as people produced the desired outputs, the organization viewed them objectively. However, if outputs fall below expectations, subjectivity occurs. This subjectivity gives place for HR managers and corporate leaders to replace workers with machines and equipment can produce desired output with minimal disruption and/or with duplicative consistency as demanded by customers. Yet, Gale (1980) found that although

investment in equipment to automate production does allow each worker to add greater amounts of value, mechanization is not an all-purpose panacea for problems in labor output. For most businesses, unfortunately, we have also found that increased investment intensity reduces profitability. (p.79)

Gale suggested that rather than management "evaluating investment in new equipment as a simple choice between increased capital costs and reduced labor costs, management needed to consider the long-term consequences of mechanization" (p.79). Reducing labor costs has traditionally been a way for managers to "save" money quickly for their organization, but the long-term implication has been that replacing those workers and developing new workers to the skill level of the old has been cost inefficient. Also, the introduction of new equipment requires more time than expected to produce the desired productivity gains.

Now that most of the manual labor jobs have been outsourced to third world or emerging countries, there is a void in the American workplace in which the jobs that require highly skilled workers are not currently capable of being filled. Workers do not have the necessary skills and/or knowledge to fulfill the specified job requirements. The gap between what the organization needs and what the potential employee is offering is too wide to be accomplished through in-house or on-the-job training. The potential employee must receive extensive, transformative education prior to pursuing the job. Organizations are seeking these skilled workers through many methods. They are using government visa programs to bring them to the US to work and are investing in training programs with community colleges and R & D departments of major universities to develop the talent needed to compete.

The field of organizational behavior was developed to study the behavior of people within the workplace and is only concerned with specific work-related behavior. OB is the systematic study of the actions and attitudes that people reveal within organizations (Robbins & Judge, 2011). This systematic study uses scientific evidence gathered under controlled conditions which are then measured and interpreted in a practical, rigorous manner to assign cause and effect. The study of behaviors (or actions) and attitudes occurs in the three areas of productivity, absenteeism, and turnover which are simple to measure and correct. They can be determined by questions that require yes or no responses. For example, did you produce according to required standards? Did you come to work? Were you fired from or did you quit your job?

A fourth type of behavior, organizational citizenship, has been added as a determiner (Tolman, 1938) of organizational effectiveness. Goals of OB include explanation, prediction, and control. Explanation seeks to answer why an individual or a group of individuals did something; however, from a management perspective it is the least important of the three goals because it occurs after the fact. Prediction focuses on future events to determine what outcomes will result from a given action. Control is the most controversial goal because most of us live in democratic societies; built upon the concept of personal freedom. OB offers technologies that facilitate the control of people;

whether or not those technologies should be used in organizations becomes an ethical question.

Essentially, behaviorists deny the individual a choice in what they do despite their unlimited potential to do other things. Sometimes employees are rewarded for doing less than they are capable (Thorndike, 1911). This can become demotivating with regards to employee performance. Pfeffer (1998) offered three basic principles, proven effective, to assist managers as they attempt stop viewing employees as a cost item:

1. People work harder, because of the increased involvement and commitment that comes from having more control over and say in their work.
2. People work smarter; high performance management practices encourage the building of skills and competence and, as importantly, facilitate the efforts of people in actually applying their wisdom and energy to enhancing organizational performance.
3. High commitment management practices, by placing more responsibility in the hands of people farther down in the organization, save on administrative overhead as well as other costs associated with having an alienated work force in an adversarial relationship with management. (p.33)

Recognizing how difficult it is for managers in behavioral based organizations to depend on employees to make autonomous decisions, Pfeffer also provided seven components of high performance management practices: employment security, selective hiring, self-managed teams, high compensation contingent on organizational performance, training, reduction of status differences, and sharing information.

Management should not arbitrarily apply these seven factors, but should align the factors with the business strategy of the organization. These factors still allow managers to have some control over employee behavior in a less stringent way. Pfeffer (1998) also recognized barriers to implementing factors that would allow the organization to put their people first. These barriers include: the desire of the organization to "follow the crowd" of peer organizations (How does this help them compete?); basing career incentives on short-term financial gains; overvaluing personal, hands-on results; highly valuing expertise; financial management more readily rewarded than human resource management; measuring in straight costs as opposed to using return on investment; "tough" management is highly regarded; providing financial management education as opposed to human or organizational education; the ability to analyze finances is more highly regarded than the ability to manage people; and the market and stakeholders demand short-term performance. All of these constraints are valid; however, the benefits of overcoming them for the organization are exponentially more valuable to their long term success and survival. This can be seen with the fall of Enron, Bear Stearns, Arthur Anderson, and Lehman Brothers. Their managers evidently placed more focus on financial analysis and manipulation than they placed on managing and developing their people. They no longer exist.

MAIN FOCUS OF THE CHAPTER

The behavioral environments that people have found at work have transitioned from Taylorism (1911) to operations research during the 1940s to statistical process control from Deming in the 1950s to six sigma which was introduced in 1986 by Motorola and currently to modeling workers by International Business Machines (IBM) in 2005. Technological firms such as IBM, Ford, and other manufacturing entities are known for their focus on technology use and development to produce high quality products. Many organizations have used business strategies for managing technological processes such as Just-in-Time (JIT), lean manufacturing, International Organization

of Standards (ISO), Total Quality Management (TQM), and Six Sigma. People have traditionally been the secondary focus within these types of business strategies.

Technology Environmental Impact

Technology is how an organization transfers its inputs into outputs. Technology is widely used to describe machinery and equipment that use sophisticated electronics and computers to produce outputs.

Organizations commonly substitute machinery for human labor when transforming inputs into outputs, and this has been occurring since the Industrial Revolution of the mid-1800s. Discussion on the behavior of people at work would be incomplete without discussing how recent advances in technology are changing the workplace and affecting the work lives of employees. Through the substitution of computerized equipment and machinery for human labor and traditional machinery, technology has allowed organizations to achieve increased levels of output with less labor and capital, and fewer materials. For example, Computer-aided graphic design has essentially made manual fashion design obsolete. It allows designers to create and evaluate alternative designs quickly and substantially reduce the costs of developing prototypes. Many fashion design schools such as New York Fashion Institute and North Carolina State University's College of Textiles teach students to design using computer technology.

Computer technology is not limited to designing; it has also made huge footprints into educational classrooms and corporate training departments.

Technology has provided management with flexible manufacturing systems to meet customers' unique demands for nonstandardized products with the efficiency associated with standardization. Although, technology is flexible, its successful use is accomplished through continuous maintenance and modification. Each employee has an identity that is complex, fluid, and dynamic as well, and they need flexibility to do their jobs, similar to technology. How do we value an employee's identity within the workplace? Horniman (2004) describes leadership as a performing art and how leaders must use their knowledge and learning to be able to adjust to workplace situations as they arise. Facebook's founder Zuckerberg recognizes people have a home identity and a work identity and has been able to leverage that knowledge to provide a social media tool that facilitates communication between people.

Three specific issues that are significantly influenced by technology in the work environment are: 1) continuous improvement processes, 2) process reengineering, and 3) mass customization. Continuous improvement processes (Deming, 1982) has long been the focused purpose for developing and introducing new technology into the workplace. As customer needs continue to change, the organization must adjust to that change. Technology has provided the fastest method for change to occur with the least amount of productivity loss. It would be remiss to discuss continuous improvement without examining Deming's 14 points for transforming and organization:

1. Create constancy of purpose toward improvement of product and service, with the aim to become competitive and to stay in business, and to provide jobs.
2. Adopt the new philosophy. We are in a new economic age. Western management must awaken to the challenge, must learn their responsibilities, and take on leadership for change.
3. Cease dependence on inspection to achieve quality. Eliminate the need for inspection on a mass basis by building quality into the product in the first place.
4. End the practice of awarding business on the basis of price tag. Instead, minimize total cost. Move toward a single supplier for

any one item, on a long-term relationship of loyalty and trust.

5. Improve constantly and forever the system of production and service, to improve quality and productivity, and thus constantly decrease costs.
6. Institute training on the job.
7. Institute leadership. The aim of supervision should be to help people and machines and gadgets to do a better job. Supervision of management is in need of overhaul, as well as supervision of production workers.
8. Drive out fear, so that everyone may work effectively for the company.
9. Break down barriers between departments. People in research design, sales, and production must work as a team, to foresee problems of production and in use that may be encountered with the product or service.
10. Eliminate slogans, exhortations, and targets for the work force asking for zero defects and new levels of productivity. Such exhortations only create adversarial relationships, as the bulk of the causes of low quality and low productivity belong to the system and thus lie beyond the power of the work force.

11a. Eliminate work standards (quotas) on the factory floor. Substitute leadership.

b. Eliminate management by objective. Eliminate management by numbers, numerical goals. Substitute leadership.

12a. Remove barriers that rob the hourly worker of his right to pride of workmanship. The responsibility of supervisors must be changed from sheer numbers to quality.

b. Remove barriers that rob people in management and in engineering of their right to pride or workmanship. This means *inter alia*, abolishment of the annual or merit rating and of management by objective.

13. Institute a vigorous program of education and self-improvement.
14. Put everybody in the company to work to accomplish the transformation. The transformation is everybody's job. (pp. 23-24)

Deming's points are self-explanatory in the context of workplace transformation. Organizations must determine for themselves which, if any, of the points are applicable to where they are in the process of attaining their goals. His points may not work for some organizations, but innovation requires examination of current processes and determination of what is needed to transform. His points appeared to be aimed at assisting behavioral focused organizations to change its perspective to a more cognitively focused operation.

All organizations face various types of change and those change activities that are proactive, purposeful, intentional, and goal-oriented are often most effective. Having a process of planned change can help the organization improve its ability to adapt to changes in its environment. Organizations must also determine if they are implementing change in response to a break in the status quo and the change is needed only in occasional situations; or if the organization's change is a natural state and managing change is a continual process (Lewin, 1946). Deming's (1982) framework may be effectual in both cases.

Process reengineering (Champy & Hammer, 1993) is a method of instituting change within organizations. The three main elements are: 1) identifying an organization's distinctive competencies--the unique skills and resources that determine an organization's competitive weapons; 2) assessing core processes--these are the processes that customers value; and 3) reorganizing horizontally by process--flattening the structure and relying more on teams. Process reengineering also incorporates lean thinking (Womack & Jones, 1996) which focuses on the fundamental rethinking and comprehensive redesign of vital business processes.

Mass customization (Chase, R. B., Jacobs, F. R., & Aquilano, N. J., 2006; Pine, 1992) offered advantages to both customers and manufacturers. It allowed customers to avoid having to compromise because they could have the products they wanted. Manufacturers benefited through their ability to generate more satisfied customers while, at the same time, increasing production efficiency. Mass customization also resulted in little or no work-in-progress or finished-goods inventories and no obsolete products. It epitomized the functionality of JIT processing of products. The downside of mass customization was that it created increased coordination demands on management. Management needed to understand and coordinate all production processes.

Behavior within Organizational Culture

Today's business environment is marked by change, which is driven, primarily, by six forces: the changing nature of the workplace, technology, economic shocks, domestic and global competition, new social trends, and world politics. These changes tend to infiltrate the work environment and can have an impact on the organizational culture. To adapt to change learning that influences an attitude adjustment that leads to a behavioral change by the individual must occur. Gredler (2009) identified three basic assumptions held by behaviorist theorists about learning:

1. Observable behavior, rather than internal mental events or verbal reconstruction of events should be the focus of study.
2. Behavior should be studied in terms of its simplest elements, i.e., specific stimuli and specific responses.
3. The process of learning is behavioral change. That is a particular response becomes associated with the occurrence of a particular stimulus. (p.37)

Likert (1961) pioneered and used attitude surveys and scales to identify participative management as a way for organizations to adapt to changing technological innovations in the workplace. He described four types of management: exploitative and authoritarian, benevolent autocracy, consultative, and participative and suggested participative as the best options to manage employee behavior. The style of the organization has a direct impact on the organization's performance. Likert's tools were used to measure the attitudes of the employees, predict their behavior, and predict their likely performance on the job. Likert's idea, as with anything else, can be taken too far. He wanted to stop the blind obedience and corporate coercion of employees and provided a way for organizations to allow employees to deliver feedback to their employers. Despite, the successes of Likert's methods, survey numbers are not the only way for leaders to obtain feedback from employees. Human resource managers and corporate leaders must still engage in personal communication with employees to increase their understanding of employee behavior. Likert provided a significant tool for organizations to use, in a method that they could easily relate to and understand, but they must continue to surpass the status quo.

Large organizations in particular depend on satisfaction surveys to tell them why people behave the way they do at work; however, this author would suggest that the survey only provides part of the answer. For the complete answers being sought, organizations must provide leaders who have extensive communication skills and the ability to relate to their workers. They must understand the five values that the worker brings to the organization and how those values are being displayed and enhanced as needed on the job. If the needs of the employees are not being met, they will never align within the organizational culture.

Employees today are exposed to unlimited amounts of information in real time through social media and other new age technological

methods, both valuable and invaluable to their job performance. They need skills that will help them parse the information that is useful to them and apply it to the job. Sometimes technology allows people to have unnecessary information and some people do not know how to handle that information and from whom to request assistance. They become unable to troubleshoot problems because of information overload (Carr, 2003). The simple operations can become the most complex because of too much dependence upon technology instead of using practical, common sense to make a decision. For example, some workers will wait for the equipment to designate that there is a defective product on a production line before removing it even though they may have visibly discerned the defect prior to it arriving at the sensor on the line that is designed to detect the defect. Because of cultural norms, workers they are trained to allow the equipment to do the work instead of using practical human functions that may be better at performing the job than the technology.

Align People Initiatives with Technological Goals

When seeking to align people initiatives with technological goals, leaders must be open-minded to innovative ideas; as part of change, innovation is critical. Innovative organizations are characterized by structural, cultural, and human resource innovations. Unforced organizational structures positively influence innovation because they facilitate the flexibility, adaptation, and synthesis of ideas that make the adoption of innovations easier. Cultural innovation encourages experimentation and rewards both successes and failures; they celebrate mistakes. Innovative organizations actively train and develop their employees to keep them current on new technologies. Organizations must decide if they can continue to marginalize its workers. They must acknowledge that innovation can occur through people as well as through technology and the five values model can assist them in recognizing ways to make this happen. People are inimitable which is a characteristic organizations need to sustain a competitive advantage (Hatch & Dyer, 2004; Hoskisson, Hitt, Ireland, & Harrison, 2008).

Some key dimensions found in a job are skill variety, task identity, task significance, autonomy, and feedback. Individual jobs can be designed to maximize employee performance by combining tasks, creating natural work units, establishing client relationships, expanding jobs vertically, and opening feedback channels. Some people initiatives that align with technological goals include: flextime, job sharing, and using telecommuting to increase organizational flexibility. Flextime allows employees some discretion in choosing their work hours. Job sharing allows the organization to hire people who might not be available on a full-time basis and gives the organization two or more employees for the price of one. Telecommuting reduces the costs of maintaining a permanent work area for an employee and increases employee flexibility by eliminating commuting time and allowing workers to better balance work and family responsibilities.

Organizations will change; so must those they employ. Moran and Brightman (2000) suggested that to manage change, leaders must understand the three most powerful drivers of work behavior: purpose, identity, and mastery. Change leaders must inspire individuals to align their purpose (what they desire and value); identity (which is their sense of who they are); and mastery (their ability to manage themselves and the environment), with the necessary organizational change effort. Without buy-in from the employees, technological goals and initiatives will never be successful within the organization. Bandura (1977) noted that "Expectations alone will not produce desired performance if the component capabilities are lacking. Moreover, there are many things that people can do with certainty of success that they do not perform because they have no incentives to do so" (p.194). People can be trained to do what

they are told within behavioral organizational systems, but they will not do more than what they are told without some type of incentive (Lawler, 2000) unless they feel as if their ability to manage themselves is valued by the organization. There are always exceptions. There are people who need and want to be told exactly what do. Hopefully, all of these types of people will want to work for organizations who strive within the behavioral perspective.

ISSUES, CONTROVERSIES, PROBLEMS

The biggest challenge for organizations dominated by the behavioral perspective is their ability to manage complex processes with knowledge workers. Knowledge workers will not accept displacement by technological innovations. The human mind has been compared to the computer since its inception (Martinez, 2010). Although there are similarities between the human mind and the computer that has been an asset to the organization; the differences, specifically, the computer's lack of consciousness must not be overlooked. Employees will consciously, because of their purpose, values, emotions, and personality, leave the organization and take their talent elsewhere if they do not feel valued. Organizations are seeking the best and the brightest people, worldwide, to help them accomplish their organizational goals. Organizations do not gain value if they spend their energy and effort recruiting employees only to lose these employees because of technological misalignment.

Organizations continuously seek to improve quality and productivity through the use of quality management, reengineering, and other techniques. They are seeking to:

1. Improve people skills;
2. Manage workforce diversity—a key challenge since organizations are becoming more heterogeneous in terms of race, and ethnicity;
3. Respond to globalization;
4. Responsible for managing;
5. Stimulate innovation and change;
6. Cope with temporariness as the workforce becomes more part time and contingency based;
7. Deal with declining employee loyalty; and
8. Improve ethical behavior.

Not all of these issues may be completely resolved using the five values model, but they can be affected through a better understanding of how both people and technology are integral to organizational success.

Solutions and Recommendations

The behavioral perspective can be measured through location and time value. There are examples of organizations operating in ways that can use the PT model to evaluate their value. For example, IBM is using a process called modeling workers that is "building mathematical models of its own employees … to improve productivity and automate management" (Baker, 2008a, p.33). IBM could be evaluated within the behavioral section of the model. In *Numerati* Baker (2008b) provides a detailed explanation of how employee behavior is being studied to add value to organizational performance. Expert systems, neural networks, groupware, and specific managerial problem-solving software are examples of information technologies that have been created to support and improve organizational decision making; however, none of these systems are as essential as the people who program these systems and interpret the results of the system.

One behavioral technique that has been prevalent over the years has been the implementation of skill-based pay within organizations. Skill-based pay systems have been well received with limitations. This author, through the use of the PT model,

blended skill-based pay with performance based pay. Train and develop employees for skills, and pay them for their performance. Extensive time performing the job is much more important than just paying employees to attain skills. Having a skill that is not being used to enhance workplace performance and/or increase worker productivity is of no use to the organization. Only, after the employee has successfully performed the skill for a sustained and consistent amount of time, producing quality results should the employee receive pay for the skill development and performance of the desired work.

FUTURE TRENDS

Contrary to the belief of traditional workplaces, "transformations that learners perform on stimuli influence their actions. What the learners believe or think influences their behavior" (Wittrock, 1978, p.18). Cognitive thoughts influence behavior along with other elements of behavioral initiatives. A better alternative may be for organizations to discern how employees learn, behaviorally, (See Table 1) and blend that knowledge into the organization through cognitive, motivation inspired ways.

Both experience and research show that organizations and their employees resist change. This resistance can be overt, implicit, immediate, or deferred. The sources of resistance may overlap. Managers have tactics they can use to try to overcome resistance to change including communication, participation, provide support, reward acceptance of change, and create a learning organization. One way organization leaders have attempted to introduce a learning organization is through knowledge management (KM) (Alavi & Leidner, 2001; Penrose, 1959) which is a process of organizing and distributing an organization's collective wisdom so the right information gets to the right people at the right time. KM is increasingly important today because of the transience of workers. KM begins by identifying what knowledge matters to the organization and tries to capture that knowledge; though, more knowledge isn't necessarily better knowledge.

Employees must be allowed to think within the context of their work, if their behavior is to be sustained. Sitzmann, Brown, Casper, Ely, and Zimmerman (2008) found that trainees are more influenced by their training environment than their own characteristics or organizational support.

The authors' results indicate reactions capture characteristics of the training environment, primarily, and characteristics of trainees and organizational support, secondarily. Instructor style and human interaction were the best predictors of reactions, while pretraining motivation, trainees' personalities, anxiety, and perceived organizational support had weaker effects. Reactions also predict changes in motivation and self-efficacy during training and are more sensitive to the quality of training received than are affective or cognitive learning measures. The results suggest reactions may be utilized to measure training quality and to predict changes in affective learning in future theory and research on training effectiveness. (p. 290)

Table 1. Learning behaviorally

Behaviorist View	*Authors*
Learning is more or less a permanent change in behavior that can be detected by observing an organism over a period of time.	Skinner, 1953
There are many schedules of reinforcement such as shaping, chaining etc… that are useful for maintaining the change in behavior necessary for learning to have occurred.	Skinner, 1957
Learning is a system of behavioral responses to physical stimuli.	Pavlov, 1927

Organizations should ensure that where they train people reflect the work that they are asked to perform. Gagné (1962) noted that "performance comes first, and learning is often considered to result from practice of this performance" (p.85). Through repeated performance in behavioral environments such as the military's basic training program, employees learn to do the job. The primary tools of production today are not machinery and equipment, but the ideas and talents of the people (Belasco & Stayer, 1993). The environment must be conducive to employees learning the most and using their ideas and talents to propel the organization forward (Kupritz, 2002). Without a supportive work environment employees will not transfer or apply what they learn in training to the workplace.

An example of how essential the environment is in transfer of knowledge for the worker can be seen in a technical training project designed by this author with an organization that was opening a new facility in a South American country. The project required a National Homeland Security H3 Visa training plan to bring the employees to the United States to train in the local production facility while the foreign facility was being constructed. To prepare for development of the operator training manuals, many hours were spent observing and interviewing production, maintenance, shipping employees, and supervisors to determine content for the manuals. Once the content was determined, the training manuals, with supporting pictures, were designed and translated into the language of the participating employees. Train-the-trainer materials and classroom training were provided to the employees who came to the US in two separate groups so that they could learn to train employees in their home country. Technically competent translators provided interpreting services over a 10 week period for the two groups of employees. The first group of trainees also assisted with acclimating the second group of trainees to the environment upon their arrival in the US. The keys to this project were: 1) the employees were trained in an environment that would be essentially the same as they would be required to work in when they returned to their home country; 2) the individuals providing the interpreting services were technology savvy and spoke the language of the participants; 3) the employees in the facility providing the training understood their jobs; 4) the technical manuals were in both English and the language of the participants and there were pictures of the equipment so that the employees would remember the equipment when they returned home; 5) employees received train-the-trainer skills and were able to display those skills (the first group of trainees) to the second group of employees; and 6) the organization leaders understood and were willing to invest in training transfer and knew that the environment of the training was essential to training success.

CONCLUSION

Organizations need initiatives which, although behavioral, incorporate the use of the human mind along with its scripted, technological mechanization of human function. Watson, the computer developed by IBM, was successful at defeating humans on the game show Jeopardy due to its quickness at ringing the buzzer to be the first to respond and the programmed knowledge it contained; however, it was incapable of logical, cognitive reasoning which is essential to problem solving and troubleshooting in the workplace (Brynjolfsson & McAfee, 2011). For example, Watson was incapable of discerning that Toronto was not a city in the United States. Vergano (2011) quoted in his *USA Today* article that

Compared to a human brain, Watson doesn't even come close in computational power," says information scholar Martin Hilbert of the University of Southern California. "If only we put as much

effort in educating human brains as we spent on computers." Watson required the work of more than 20 researchers over four years to develop. (p. 2D)

This author emphatically agrees with the idea of investing just as much money in developing human brains as we invest in developing technology. Watson is one computer that may be able to provide extensive information but this development process would be an ideal case study for application of the PT model. What is the location, use, maintenance, modification, and time value of Watson as compared to people at IBM?

During the participative management era (1960-1990), while training remained decidedly behavioral, the cognitive revolution was brewing in psychology (Kraiger & Ford, 2007).. Bass and Vaughn note that

the primary objective of training is to bring about certain desired changes in [employee] behavior as efficiently as possible, and since the essence of learning is change in behavior, the importance of an understanding of the principles of learning to any training endeavor becomes obvious [and essential to the organization]. (p.4)

Behavioral initiatives must use learning processes to influence change in employee behavior.

Attitude leads to intention which results in behavior. The attitude of leaders in organizations must be reflected in their intention, if they expect employees to behave in ways that will benefit the organization. The behavior of an organization's leadership exemplifies what they intend to have happen, so they must be clear (Lovallo & Kahneman, 2003). Technology has impacted the workplace environment in both positive and negative ways. Sometimes, the good has to be accepted along with the bad. There are good days and bad days in all organizations and without the ability to predict the future, adaptability becomes a guiding principle. Employee behavior within organizational culture must fit within the goals of organizations. The important decision for organizations is to determine the strategic competitive advantage for the organization; is it people, technology, or the combination of people and technology? Organizations must examine the use of the behavioral perspective and how they align their people initiatives with their technological initiatives and goals.

REFERENCES

Alavi, M., & Leidner, D. E. (2001). *Review*: Knowledge management and knowledge management systems: Conceptual foundations and research issues. *Management Information Systems Quarterly*, *25*(1), 107–136. doi:10.2307/3250961

Baker, S. (2008a, September 8). Management by the numbers. *Business Week*, pp. 32-36.

Baker, S. (2008b). *The numerati*. New York, NY: Houghton Mifflin.

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, *84*, 191–215. doi:10.1037/0033-295X.84.2.191

Bass, B. M., & Vaughn, J. A. (1966). *Training in industry: The management of learning*. Belmont, CA: Brooks/Cole.

Belasco, J. A., & Stayer, R. C. (1993). *Flight of the buffalo: Soaring to excellence, learning to let employees lead*. New York, NY: Warner Books, Inc.

Brynjolfsson, E., & McAfee, A. (2011). *Race against the machine: How the digital revolution is accelerating innovation, driving productivity, and irreversibly transforming employment and the economy*. Lexington, MA: Digital Frontier Press.

Carr, N. G. (2003). IT doesn't matter. *Harvard Business Review*, *81*(5), 41–49.

Champy, J., & Hammer, M. (1993). *Reengineering the corporation*. New York, NY: HarperBusiness.

Chase, R. B., Jacobs, F. R., & Aquilano, N. J. (2006). *Operations management for competitive advantage* (11th ed.). New York, NY: McGraw-Hill/Irwin.

Deming, W. E. (1982). *Out of the crisis*. Cambridge, MA: MIT Center for Advanced Engineering Study.

Friedman, M. (1970, September 13). The social responsibility of business is to increase its profits. *The New York Times Magazine.*

Gagné, R. M. (1962). Military training and principles of learning. *The American Psychologist*, *17*, 83–91. doi:10.1037/h0048613

Gale, B. T. (1980). Can more capital buy higher productivity? *Harvard Business Review*, *58*(4), 78–86.

Hatch, N. W., & Dyer, J. H. (2004). Human capital and learning as source of sustainable competitive advantage. *Strategic Management Journal*, *25*, 1155–1178. doi:10.1002/smj.421

Horniman, A. B. (2004). Leading: A performing learning art. In Goldsmith, M., Morgan, H. J., & Ogg, A. J. (Eds.), *Leading organizational learning: Harnessing the power of knowledge*. San Francisco, CA: Jossey-Bass.

Hoskisson, R. E., Hitt, M. A., Ireland, R. D., & Harrison, J. S. (2008). *Competing for advantage* (2nd ed.). Mason, OH: South-Western.

Kraiger, K., & Ford, J. K. (2007). The expanding role of workplace training: Themes and trends influencing training research and practice. In Koppes, L. L. (Ed.), *Historical perspectives in industrial and organizational psychology*. New York, NY: Psychology Press.

Kupritz, V. W. (2002). The relative impact of workplace design on training transfer. *Human Resource Development Quarterly*, *13*, 427–447. doi:10.1002/hrdq.1042

Lawler, E. E. III. (2000). *Rewarding excellence: Pay strategies for the new economy*. San Francisco, CA: Jossey-Bass Publishers.

Lepper, M. R., Greene, D., & Nisbett, R. E. (1973). Undermining children's intrinsic interest with extrinsic reward: A test of the "overjustification" hypothesis. *Journal of Personality and Social Psychology*, *28*, 129–137. doi:10.1037/h0035519

Lewin, K. (1946). Action research and minority problems. *The Journal of Social Issues*, *2*(4), 34–46. doi:10.1111/j.1540-4560.1946.tb02295.x

Likert, R. (1961). *New patterns of management*. New York, NY: McGraw-Hill.

Lovallo, D., & Kahneman, D. (2003). Delusions of success: How optimism undermines executives' decision. *Harvard Business Review*, *81*, 56–63.

Martinez, M. E. (2010). *Learning and cognition: The design of the mind*. Upper Saddle River, NJ: Pearson.

Moran, J. W., & Brightman, B. K. (2000). Leading organizational change. *Journal of Workplace Learning: Employee Counseling Today*, *12*, 66–74.

Pavlov, I. P. (1927). *Conditioned reflexes*. London, UK: Routledge and Kegan Paul.

Penrose, E. T. (1959). *The theory of the growth of the firm*. New York, NY: Wiley.

Pfeffer, J. (1998). *The human equation. Building profits by putting people first*. Boston, MA: Harvard Business School.

Pine, J. II. (1992). *Mass customization: The new frontier in business competition*. Boston, MA: Harvard Business School.

Robbins, S., & Judge, T. (2011). *Organizational behavior* (14th ed.). Upper Saddle River, NJ: Prentice Hall.

Sitzmann, T., Brown, K. G., Casper, W. J., Ely, K., & Zimmerman, R. D. (2008). A review and meta-analysis of the nomological network of trainee reactions. *The Journal of Applied Psychology*, *93*(2), 280–295. doi:10.1037/0021-9010.93.2.280

Skinner, B. F. (1957). *Verbal learning*. New York, NY: Appleton-Century-Crofts. doi:10.1037/11256-000

Taylor, F. W. (1911). *The principles of scientific management*. New York, NY: Harper & Row.

Thorndike, E. L. (1911). *Animal intelligence*. New York, NY: Macmillan.

Tolman, E. C. (1938). The determiners of behavior at a choice point. *Psychological Review*, *45*, 1–41. doi:10.1037/h0062733

Vergano, D. (2011, February 17). Watson dominated at 'Jeopardy!- but what else can it do? *USA Today*, p. 2D.

Watson, J. B. (1913). Psychology as the behaviorist sees it. *Psychological Review*, *20*, 157–177. doi:10.1037/h0074428

Weiner, B. (1985). An attributional theory of achievement motivation and emotion. *Psychological Review*, *92*, 548–573. doi:10.1037/0033-295X.92.4.548

Wittrock, M. C. (1978). The cognitive movement in instruction. *Educational Psychologist*, *15*, 15–29. doi:10.1080/00461527809529192

Womack, J. P., & Jones, D. T. (1996). *Lean thinking*. New York, NY: Simon & Schuster.

Chapter 6
Cultural Initiatives

ABSTRACT

Organizational cultural initiatives are not limited to the internal culture of the organization but are influenced by the external culture within which the organization operates. Organizational culture is a relatively new type of organizational analysis that is borrowed from the field of anthropology. It first was described as an organizational unit of concern by Pettigrew (1979). Competitive organizations maintain their competitive advantage through their ability to effectively leverage high technology and people in the workplace. High technology and people do not exist in a vacuum. How has the environment or culture influenced the use of technology and people? The purpose of this chapter is to: (1) review the cultural initiatives including embedded in environment, adoption of cultural norms, leadership by inspiration, and evidence based management; and (2) present an analysis of issues and concerns related to managing people and technology in an environment that focuses upon a cultural perspective within the organizational process.

INTRODUCTION

Organizational cultural initiatives are not limited to the internal culture of the organization but are influenced by the external culture within which the organization operates. Organizational culture is a relatively new type of organizational analysis that is continuing to innovate after emerging from the field of anthropology. It first was described as an organizational unit of concern by Pettigrew (1979). Competitive organizations maintain their competitive advantage through their ability to effectively leverage high technology and people in the workplace. High technology and people do not exist in a vacuum. External conditions are always in flux (new competitors, new opportunities) and internal conditions continually change (new process, new employees). It is essential to understand the role of the workplace environment and available resources contribute to the success of the organization. How has the environment or culture influenced the use of technology and people?

The stated and real objectives of organizations may diverge because organizations try to satisfy multiple stakeholders who evaluate the organization using different criteria. In addition, organizations are under pressure to state objectives

DOI: 10.4018/978-1-4666-0240-3.ch006

that are socially desirable. These socially desirable factors often lead to restricted objectives that differ significantly from what the organization is actually accomplishing. Drucker (1994) discussed the effect of social changes on society and ultimately on organizations. He described how extreme social transformations of this century caused no stir whatsoever, whereas far smaller and slower social changes in earlier periods resulted in civil wars, rebellions and violent intellectual and spiritual crises. Although this century did have world wars, civil wars, mass tortures, ethnic cleansings, genocides and holocausts, they have proceeded with a minimum of friction, with a minimum of attention from scholars, politicians, the press and the public. He believed that the 20th century proves one thing – the futility of politics in the sense that none of the social transformations of this century were caused by the headline-making political events or the headline-making political events being caused by social transformation.

Drucker (1994) also described how the social transformation of farmers and live-in servants occurred without a stir, although the number of live-in servants was used to distinguish class status. Blue-collar workers in manufacturing industries became socially dominant, gradually displacing farmers and live-in servants. They were an extremely visible class and were very organizable because they lived in dense population clusters and in cities. Blue-collar workers were the first lower class in history that could be organized and could stay organized. No class has risen or fallen faster than the blue-collar worker. They gained political power through their unionization. The blue-collar worker was now being displaced by the technologist whom Drucker defined as someone who worked both with his hands and theoretical knowledge.

The rise of knowledge workers presented a challenge for industrial workers. The new jobs would require qualifications the industrial workers did not possess and were poorly equipped to acquire formal education, apply theoretical and analytical knowledge, learn a different approach to work with a different mindset, and develop a habit of continuous learning. A third of the American workforce would be knowledge workers and would force social change in society (Drucker 1994). The need for knowledge workers has also begun to force cultural change inside organizations. No worker with knowledge and ability can be overlooked if the organization would like to meet its required labor needs.

American society will have to find jobs for the millions of uneducated and unskilled young people. This prediction is evident currently. Since the 2008 Great Recession many organizations have no jobs for the millions of uneducated and unskilled displaced older workers either. The knowledge society will be the first in which most people will not earn their daily bread by the sweat of their brow; changing the human condition – values, commitments, and problems. Knowledge workers will provide the knowledge society its character, leadership and social profile. They gain access to jobs and social position through formal education and not apprenticeships. Knowledge work requires highly developed manual skill and involves substantial work with one's hand – neurosurgeon and research chemist for examples. Drucker(1994) predicted that the economic challenge of this society would be the productivity of knowledge work and the social challenge would be the productivity of the non-knowledge or service workers. The challenge would be to give non-knowledge workers decent incomes with dignity and status. Knowledge workers would be more specialized than general and would need to work in teams and/or be affiliated with an organization. The true "capital equipment" would now be the knowledge of the employee. Managers would need both the knowledge of management and the understanding of the core competencies of the organization – purpose, values, environment and markets. This author suggests that they will also need a solid understanding of technology as well as an understanding of how to blend that

technology with the knowledge of its people. In the 21st century, unionized, public sector, knowledge workers are under attack from their government leaders. The push and the pull of the internal culture against the external culture demands can be a significant challenge for an organization to overcome.

This chapter (1) reviews the cultural initiatives including embedded in environment, adoption of cultural norms, leadership by inspiration, and evidence-based management and (2) presents an analysis of issues and concerns related to managing people and technology in an environment that focuses upon a cultural perspective within the organizational process.

BACKGROUND

Schein (1983) defined organizational culture as follows:

Organizational culture, then, is the pattern of basic assumptions that a given group has invented, discovered, or developed in learning to cope with its problems of external adaptation and internal integration – a pattern of assumptions that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems. (p, 14)

Organizational culture refers to a system of shared meaning held by members that distinguishes the organization from other organizations. Organizational cultures have seven primary characteristics; innovation and risk taking, attention to detail, outcome orientation, people orientation, team orientation, aggressiveness, and stability (Robbins & Judge, 2011). Organizational culture represents a common perception held by the organization's members. The popularity of differentiating between strong and weak cultures has become a trend. However, this author would suggest that the strength of the culture is not as important as having all employees know what the culture is and having the ability to adapt to the culture. Often unknowingly, the politics of a culture can be the detriment of a promising employee. Not being able to recognize the good from the bad of a culture and assimilating toward the bad can destroy the career of new employees before they ever have the opportunity to share their expertise (Anand, Glick, & Manz, 2002). A strong culture is characterized by the organization's core values being both intensely held and widely shared. Again, all employees must know the core values before they can be intensely held and shared.

The boundary-defining characteristic of organizational culture can produce a competitive advantage for organizations as it creates distinctions between itself and others. It allows organization employees to express the sense of identity acquired through their affiliation with the organization; thus, enhancing organizational commitment and increasing the consistency of employee behavior. There are many benefits to an organization when it has a viable culture that is aligned with its overall goals; however, culture is a liability when the shared values do not agree with those that will further the organization's effectiveness. It can especially be a disadvantage if the members adhere to the culture and do not change when it becomes skewed away from the goals.

An organization's current customs, traditions, and general way of doing things are usually maintained because what was previously done has had a consistent degree of success (e.g. gained experience), but the ultimate source of an organization's culture is its founders (Schein, 1983). Once a culture has been established, practices within the organization are used to maintain the culture and employees are taught through a similar set of experiences. Three forces play a particularly important part in sustaining a culture: selection practices, the actions of top management, and socialization methods (Schein, 1988).

Several ways that organizations share their cultures with their employees include stories, rituals, and messaging. Historical stories about the organization's founders and how the organization was started and is currently sustained help to anchor the present in the past and provide explanations and legitimacy for current practices. One company that does this extremely well is Wal-Mart through its devotion to its history and the legacy of its founder, Sam Walton. Rituals are repetitive sequences of activities that express and reinforce the key values of the organization, what goals are most important, which people are important and which are expendable (Caplow, 1954). Colleges and universities serve as examples of ritualistic organizations especially with regards to the tenure process. Organization's material symbols convey messages to new employees. Organizations such as Coca-Cola and McDonald's have symbols that convey meaning to new employees. They have reputations of being number one in the world at what they do. Messages can also be conveyed by material symbols bestowed on executives. Apple's CEO Steve Jobs is a material symbol for the organization. He is a symbol of creativity. Many organizations and units within organizations use language as a way to identify members of a culture or subculture. The federal government, military, and court system in the US use language as a way to identify members. There may be other organizations that use language as a cultural identifier, but this information is typically not available to those outside the organization.

Because an organization's culture is made up of relatively stable characteristics, it is difficult to change. Culture develops over many years and is rooted in deeply held values; therefore, certain conditions need to exist for cultural change to take place. Sometimes a dramatic crisis exists or is created through a turnover of the organization's leadership and forced cultural change takes place. This may not be an effective change for the organization. Often, if the crisis is severe enough, no amount of cultural change is enough to save the company from complete failure. The 2010 BP oil spill in the Gulf of Mexico was a huge crisis and the company still remains; but, they changed CEOs. Another example is in professional and collegiate athletics. Teams have cultures that are associated with the organization, communities, cities, and states within which they exist. When they have to change coaches, they often experience huge change that has the potential to dramatically affect their culture. The fit must be in coherence with the culture.

Ethics has become a major emphasis within the culture of organizations in recent years. Ethical standards have historically been assumed within organizations; however, as the economy has become more global, it has had to be taught to employees. The different cultural norms across countries in which organizations do businesses forces organizations to understand that what is acceptable in one country is not acceptable in others. Being able to say no to traditional bribes and other influences is essential for American workers to meet some legal standards. Not all unethical behavior is illegal, but the behavior may be in contrast to organizational policies. Some organizations develop their own policies and procedures for employee behavior in addition to what is required by law. Employees must behave in ways that do not appear corrupt so that the organizational culture may be a positive source of goodwill in the competitive marketplace.

It is critical to an organization's success for it to be able to socialize and integrate new employees who are not like the majority of the organization's employees. New employees are expected to accept the organization's core cultural values; however, they should not be asked to do so to the detriment of their core personal values and beliefs. Sometimes an employee can be loyal to the organization without denying who they are as an individual. Management must openly acknowledge and demonstrate support for the differences that employees bring to the workplace. This can pose a paradoxical dilemma for leaders who should

weigh the value of differences against its effect on the core culture. If the employee is not challenging the culture and are operating effectively within it, that should be enough.

MAIN FOCUS OF THE CHAPTER

Pareek (1989) observed that organizational climate is created by the interaction of an organization's "structure, systems, culture, leader behavior, and psychological needs of employees" (p. 161). Through a review of studies by Likert (1967), Litwin and Stringer (1968), and others, Pareek (1989) identifies the following twelve dimensions of organizational climate:

1. Orientation: members' principal concern (control, excellence, and so on);
2. Interpersonal relations: such as cliques or dependency;
3. Supervision: supervisors' influence on employee motivation;
4. Problem management: how the organization views and solves problems;
5. Management of mistakes: leaders' attitudes toward subordinates' errors;
6. Conflict management: processes used to resolve conflict;
7. Communication: prevalent styles and characteristics of communications;
8. Decision making: how decisions are made and by whom; how the decision making process affects relationships;
9. Trust: who trusts whom for what;
10. Management of rewards: what behaviors are reinforced;
11. Risk taking: the organization's way of handling risky situations; and
12. Innovation and change: who is responsible for instigating change, by what methods, and to what effect? (pp. 162-163)

Understanding the effect of these dimensions provides a starting point for organizations to enhance their organizational climate or culture so that it benefits all stakeholders.

Embedded in Environment

Cultural organizations want their culture to be embedded or non-discernable from its environment. Schein (1983) states that "The basic process of embedding a cultural element – a given belief or assumption – is a "teaching" process, but not necessarily an explicit one" (p. 21). He also provided a list of mechanism used by founders and leaders to embed and transmit culture within the organization. These mechanisms are:

1. Formal statements of organizational philosophy, charters, creeds, materials used for recruitment and selection, and socialization.
2. Design of physical spaces, facades, buildings.
3. Deliberate role modeling, teaching, and coaching by leaders.
4. Explicit reward and status system, promotion criteria.
5. Stories, legends, myths, and parables about key people and events.
6. What leaders pay attention to, measure and control.
7. Leader reactions to critical incidents and organizational crises (times when organizational survival is threatened, norms are unclear or are challenged, insubordination occurs, threatening or meaningless events occur, and so forth).
8. How the organization is designed and structured. (The design of work, who reports to whom, degree of decentralization, functional or other criteria for differentiation, and mechanisms used for integration carry implicit messages of what leaders assume and value.)
9. Organizational systems and procedures. (The types of information, control, and decision

support systems in terms of categories of information, time cycles, who gets what information, and when and how performance appraisal and other review processes are conducted carry implicit messages of what leaders assume and value.)

10. Criteria used for recruitment, selection, promotion, leveling off, retirement, and "excommunication" of people (the implicit and possibly unconscious criteria that leaders use to determine who "fits" and who doesn't "fit" membership roles and key slots in the organization). (p.22)

Organizations have developed many ways to train or indoctrinate employees to their culture; however, the most effective way has been through leadership behavior. Leaders expect employees to follow their lead. If they are, through their behavior, exemplifying the desired cultural behavior of the organization, then employees will follow their lead. In contrast, if they are not exemplifying desired behaviors, employees may still follow their lead resulting in negative consequences. Leaders' behavior can be an asset and/or a detriment to the success of cultural initiatives within organizations. Leaders sometimes also depend upon the traditions of the organization to be the teacher of employees; however, if there are changes to traditions of which leaders are not aware, employees can go off track and never become embedded in the culture.

Leaders are taught to delegate responsibilities; however, cultural adaptation and teaching should not be a responsibility that they delegate. They should be embedded within the organizational culture and share that culture with all whom they are asked to lead. When leaders abdicate this responsibility, organizations typically fail or lose their competitive advantage. One example of this was when Coca-Cola's leadership decided to introduce New Coke and lost competitive advantage to Pepsi. It required the re-introduction of Coke as Classic Coke and many years to regain their advantage. The public may still be skeptical of many new products they introduce. The embedded culture of Coke was to trust their leadership to protect the Coke formula and brand. When leaders chose to listen to outsiders through taste tests and adjust the formula, they were no longer embedded within the culture of the Coca-Cola Company's tradition. It is easy to become caught up in trends and movements that occur outside the organization, but leaders must embed themselves within the culture to help protect themselves and their employees from being influenced by activities that are in contrast to their cultural norms.

Adoption of Cultural Norms

Cultural norms of organizations vary greatly. This would not be a problem for employees if they, as in the past, started their careers with one company and remained there until retirement. In today's boundaryless (Robbins & Judge, 2011) career environment, employees are learning to adopt the cultural norms of every organization that they enter. This can and has caused many difficulties for companies especially at the executive levels. For example, Wal-Mart is reorienting itself after having hired a former Target executive who eliminated many products from stores. They are fixing the problem; however, the bigger question becomes why would they hire and give a competitor's former employee the authority to make decisions that do not align with its cultural norms?

Hiring managers must consider many things during the hiring process. It is very difficult to determine if an employee will adapt to the cultural norms or even if they know what the cultural norms of the organization are but this potential ability cannot be ignored. High regard should be given to this criterion especially when hiring employees at the executive ranks. Hewlett-Packard showed high resiliency to its cultural norms when they fired their CEO in 2010 for fudging expense reports. There are many cases where organizations overlook the "sins" of its leaders and still expect lower level

employees to adopt the cultural norms. This never works to the benefit of the organizations. There must be a consistency of behavior at all levels of the organization.

Leadership by Inspiration

Inspirational leadership is a form of transformational leadership. Leadership by Inspiration occurs when organizations have charismatic leaders who embody the culture of the organization to the extent that employees will eagerly follow them just because their presence is inspiring (Friedland, 1964; House, 1977; Kelman, 1961; Trice & Beyer, 1986a/1986b; Weber, 1947). Inspirational leaders usually produce transformational results; results that are clearly unimaginable without their involvement. These types of leaders are able to produce these achievements through people because they are capable of inspiring, intellectually stimulating, and being considerate to them (Bass, 1999). Inspirational leaders can be positive or negative influencers (Graham, 1991). Bass (1999) described transformational leadership:

Transformational leadership refers to the leader moving the follower beyond immediate self-interests through idealized influence (charisma), inspiration, intellectual stimulation, or individualized consideration. It elevates the follower's level of maturity and ideals as well as concerns for achievement, self-actualization, and the well-being of others, the organization, and society. *Idealized influence* and *inspirational leadership* are displayed when the leader envisions a desirable future, articulates how it can be reached, sets an example to be followed, sets high standards of performance, and shows determination and confidence. Followers want to identify with such leadership. (p.11)

Dr. Martin Luther King, Jr. was an inspirational leader to an entire race of people during the civil rights movement as was Mahandas Gandhi in India. President Barack Obama is an inspirational leader because of his speaking ability and his consistently positive disposition while under constant pressure. Warren Buffet is an inspirational leader because of his financial success. Steve Jobs of Apple was an inspirational leader because of his resiliency and creativity (Isaacson, 2011). Mary Kay was an inspirational leader because of her ability to encourage women to become self-sufficient. (Ash, 1981). Donald Trump is an inspirational leader because of his shameless self-promotion. The level of an inspirational leader's positive or negative impact is beyond the scope of this book; however, it is a source of cultural influence within organizations.

Bass's (1988) description of inspiring leaders clearly depicts the characteristics of the inspirational leader and how leadership by inspiration is accomplished.

The inspiring leader is seen by followers as knowledgeable, enlightened, and sensitive to the problems faced. Follower confidence is built from this. Trust in the inspiring leader stems from the meaning the leader gives to needs and actions. The leader and followers share common beliefs about what is wrong; the leader articulates these beliefs publicly. The inspirational leader can represent and symbolize the follower's ego, while the charismatic leader substitutes for the follower's ideal ego. Many different possible behaviors can be inspirational. Inspirational leaders employ persuasive appeals, arouse emotional acceptance, and can have marked physiological side effects on their subjects. They have the ability to influence subordinates to exert themselves beyond their own expectations and self-interest. The overlapping components of inspirational leadership behavior can be perceived to include: 1. managing meaning, 2. managing impressions, 3. molding follower expectations, 4. envisioning, and 5. intellectually stimulating followers. (p. 21)

Leadership by inspiration is a cultural phenomenon because it encompasses the characteristics of cultural change, adoption of cultural norms that is represented by the leader, and becomes an embedded part of the organizational culture.

EVIDENCE-BASED MANAGEMENT

Sackett (1997) defined evidence-based medicine as the "conscientious, explicit and judicious use of current best practice in making decisions about the care of individual patients" (p. 3). Pfeffer and Sutton suggested that evidence-based practice while originating from medicine was much more needed in management to resolve organizational problems. Evidence-based management would force managers to use proven information to tackle problems and enhance organizational effectiveness. The pace of business forces them not to make decisions based upon the evidence, but to use iteration and make the necessary adjustments along the way (Whitman, 2010).

Rousseau (2006) questioned whether evidence-based management was being applied in the workplace. She also provided the features that characterize evidence-based practice:

- Learning about *cause-effect* connections in professional practices;
- Isolating the variations that measurably affect desired outcomes;
- Creating a culture of evidence-based decision making and research participation;
- Using information-sharing communities to reduce overuse, underuse, and misuse of specific practices;
- Building decision supports to promote practices the evidence validates, along with techniques and artifacts that make the decision easier to execute or perform (e.g., checklists, protocols, or standing orders); and
- Having individual, organizational, and institutional factors promote access to knowledge and its use. (pp. 259- 260)

The features serve as the standard upon which managers can gauge whether or not evidence-based practice is prevalent within their organizations. While difficult to implement, evidence-based practice has merit. If it is inculcated into the workplace culture, it can serve as a way for employees to know that they have instituted the best known work practice.

The debate between theory and practice in the workplace continues and as employees and managers learn to be scholar-practitioners, the divide, while not completely bridged, is lessening (Argyris, 1985; Beer, 2001; Burack, 1999; Hamlin, 2002; Hughes, Wang, Zheng & McLean, 2010; Mohrman & Mohrman, 2001; Muchinsky, 2004; Rynes, Bartunek, & Daft, 2001; Van de Ven & Johnson, 2006).

ISSUES, CONTROVERSIES, PROBLEMS

Cultural initiatives cannot or are extremely difficult to measure quantitatively thus there are many who doubt their effect on organizational outcomes. Cultural is intuitive and emotional thus it can become difficult to accept, hard to explain, and sometimes impossible to understand even when positive or negative results are present. The unexplainable in the supposedly explainable world of organizations is too hard to accept, so there is push back against the introduction of cultural initiatives in many organizations. The concept of leadership being a state of mind and not a position or title does not coalesce with the norms of the traditional organization. They adhere to position hierarchy that can sometimes be detrimental to organizational growth and development.

Solutions and Recommendations

Organizations that operate successfully within the cultural perspective often produce products and provide services that are immensely superior and meet customers' needs to the extent that the consumer is not concerned about its culture. Often its competitors express the most concern because it is something that is impossible to duplicate.

Companies such as Google, SAS Institute and Gore-Tex are known to operate within the cultural perspective and have very low employee turnover. No one can truly explain their culture because it is embedded and is not something that is easily or structurally definable.

Evaluation of the influence of historical, social, and political structures within the cultural perspective on location, use, modification, maintenance, and time value of employees may provide: 1) an understanding of the culture that is embedded in the workplace environment; 2) how employees adopt cultural norms of the organization; 3) how leadership by inspiration is effective (Mintzberg, 1998); and 4) how evidence-based management practices are implemented (Pfeffer & Sutton, 2006).

The cultural perspective can be measured through location and use value. In some organizations employees are becoming embedded in the environment in ways similar to that of technology. For example at organizations such as Google, SAS Institute and Gore-Tex, the employees are immersed in strong cultural environments that stimulate employee productivity. These organizations could be studied within the cultural section of the PT model. Pfeffer and Sutton (2006) suggest that the best way to encourage performance is to build a high performance culture using evidence-based management. Changing how HRD professionals and managers think and act based on evidence can also provide opportunities for value creation within organizations. Organizations are also being transformed by leadership by inspiration. As the culture conforms to the vision of leaders who inspire employees, the employees may be motivated by the vision and are inspired to perform.

FUTURE TRENDS

External cultural influences are continuing to directly and/or indirectly effect the decisions of organizations. Organizations cannot operate without people involvement, so they make adjustments, although reluctantly at times, to meet societal demands. Sustainability and spirituality in the workplace are two examples that are currently impacting cultural changes in organizations. There also continues to be an emerging social sector in America along with the government and the business sector. Government makes rules and enforces them, businesses supply, and the social sector aim to change the human being.

Drucker (1994) felt the reason schools are failing is because they are trying to be the social sector. The social sector should be primarily non-profits. Drucker had many interesting points which are being experienced by today's society. Some schools are overwhelmed with more social problems than issues of educating students; the government is more concerned with the personal ideals of its members than making and enforcing rules that all can live by; and the business sector is not as concerned with supplying its customers' needs as with how much money they will earn.

The emergence of a social sector could help American society from the perspective that every group will not need to lobby the government to be heard and government will be able to do its job. Business is already following this route with the development of Employee Assistance Programs (EAP) and private foundations that give back to their communities. Educators, particularly career and technical educators, need to adapt to the changes in society and make sure that students leave their program with not only skills but also the knowledge to apply those skills in the workplace. They also need to continue providing services to employees who are making career transitions by choice and/or as a necessity. They must allow students to develop troubleshooting and problem-solving skills through active involvement in real world issues. These abilities cannot be taught; they must be experienced in an environment where learning is the goal and not perfection. Employers and educators must accept some mistakes and allow employees to learn and grow from their

mistakes. Two key questions are: 1) how do we teach a knowledge worker to share their knowledge when that is their competitive advantage in the workplace? and 2) how do educators help develop social structures that are independent of government and/or business and still maintain a viable voice in society?

Organizations ought to examine the cultural frame within which it is viewing people and technology development initiatives. They should make it an obligation to determine that if their dominant operational perspective is cultural, then their initiatives should complement that perspective so that all stakeholders benefit and the organization continue to strive. Hrd is a strategic resource that can be used to leverage high technology and people within the workplace. To what extent can people and technology development be leveraged as a strategic resource to help organizations increase productivity of workers within cultural perspectives?

CONCLUSION

Outmoded organizational structures can impede both people and technology development. Conceptual and technical innovation, together, will yield a competitive advantage for the organization that can leverage their resources within its culture to extract value. The results of cultural initiatives can provide competitive advantage for organizations, if they can accept that all results may not be measurable. Sometimes goodwill provides much more dividends than organizations realize. It is often said that "word of mouth" is the best marketing strategy. Cultural may be the best marketing strategy for organizations as they seek to integrate people and technology in the workplace. How do people and/or technology shape the organization's cultural understanding and development? Does the location, use, maintenance, modification, and time values of people and technology impact cultural initiatives and changes? If so, how are these ways competitively advantageous to the organization in the global marketplace? These are just a few of the questions that the five values model may help organizations operating within the cultural perspective answer.

REFERENCES

Anand, V., Glick, W. H., & Manz, C. C. (2002). Thriving on the knowledge of outsiders: Tapping organizational social capital. *The Academy of Management Executive*, *19*(1), 87–101. doi:10.5465/AME.2002.6640198

Argyris, C. (1985). Making knowledge more relevant to practice: Maps for action. In Lawler, E. E. III, Mohrman, A. M., Mohrman, S. A., Ledford, G. E. Jr, & Cummings, T. G. (Eds.), *Doing research that is useful for theory and practice* (pp. 29–125). San Francisco, CA: Jossey-Bass.

Ash, M. K. (1981). *Mary Kay*. New York, NY: Harper and Row.

Bass, B. M. (1988). The inspirational process of leadership. *Journal of Management Development*, *7*, 21–31. doi:10.1108/eb051688

Bass, B. M. (1999). Two decades of research and development in transformational leadership. *European Journal of Work and Organizational Psychology*, *8*(1), 9–32. doi:10.1080/135943299398410

Beer, M. (2001). Why management research findings are unimplementable: An action science perspective. *Reflections: The SoL Journal*, *2*(3), 58–65. doi:10.1162/152417301570383

Burack, E. H. (1999). Bridging research to corporate application. In Larwood, L., & Gattiker, U. E. (Eds.), *Impact analysis: How reach can enter application and make a difference* (pp. 17–46). Mahwah, NJ: Erlbaum.

Caplow, T. (1954). *The sociology of work*. New York, NY: McGraw-Hill Book Company.

Drucker, P. F. (1994). The age of social transformation. *Atlantic Monthly*, *274*(5), 53–80.

Friedland, W. H. (1964). For a sociological concept of charisma. *Social Forces*, *43*, 18–26.

Graham, J. W. (1991). Servant-leadership in organizations: Inspirational and moral. *The Leadership Quarterly*, *2*(2), 105–119. doi:10.1016/1048-9843(91)90025-W

Hamlin, R. G. (2002). In support of evidence-based management and research-informed HRD through HRD professional partnerships: An empirical and comparative study. *Human Resource Development International*, *5*, 467–491. doi:10.1080/13678860210122643

House, R. J. (1977). A 1976 theory of charismatic leadership. In Hunt, J. G., & Larson, L. L. (Eds.), *Leadership: The cutting edge* (pp. 189–273). Carbondale, IL: Southern Illinois University Press.

Hughes, C., Wang, J., Zheng, W., & McLean, L. (2010). Implementation concerns of scholar-practitioners: A pilot study of the link between research and practice. *International Journal of Asian Business and Information Management*, *1*(2), 32–46. doi:10.4018/jabim.2010040104

Isaacson, W. (2011). *Steve Jobs*. New York, NY: Simon and Schuster.

Kelman, H. C. (1961). Processes of opinion change. *Public Opinion Quarterly*, *25*, 57–78. doi:10.1086/266996

Likert, R. (1967). *The human organization*. New York, NY: McGraw-Hill.

Litwin, G. H., & Stringer, R. A. Jr. (1968). *Motivation and organizational climate*. Boston, MA: Division of Research, Harvard Business School.

Mintzberg, H. (1998). Covert leadership: Notes on managing professionals. Knowledge workers respond to inspiration, not supervision. *Harvard Business Review*, *76*(6), 140–147.

Mohrman, S., Gibson, C., & Mohrman, A. (2001). Doing research that is useful to practice: A model and empirical exploration. *Academy of Management Journal*, *44*, 357–375. doi:10.2307/3069461

Muchinsky, P. M. (2004). When the psychometrics of test development meets organizational realities: A conceptual framework for organizational change, examples and recommendations. *Personnel Psychology*, *57*(1), 179–205. doi:10.1111/j.1744-6570.2004.tb02488.x

Pareek, U. (1989). Motivational analysis of organizations-climate (MAO-C). In Pfeiffer, J. W. (Ed.), *The 1989 annual: Developing human resources* (pp. 161–18). San Diego, CA: Pfeiffer & Company.

Pettigrew, A. M. (1979). On studying organizational culture. *Administrative Science Quarterly*, *24*, 570–581. doi:10.2307/2392363

Pfeffer, J., & Sutton, R. I. (2006). Evidence-based management. *Harvard Business Review*, *84*(1), 62–75.

Robbins, S., & Judge, T. (2011). *Organizational behavior* (14th ed.). Upper Saddle River, NJ: Prentice Hall.

Rousseau, D. M. (2006). Presidential address: Is there such a thing as "evidence-based management"? *Academy of Management Review*, *31*, 256–269. doi:10.5465/AMR.2006.20208679

Rynes, S. L., Bartunek, J. M., & Daft, R. L. (2001). Across the great divide: Knowledge creation and transfer between practitioners and academics. *Academy of Management Journal*, *44*, 340–355. doi:10.2307/3069460

Sackett, D. L. (1997). Evidence-based medicine. *Seminars in Perinatology*, *21*(1), 3–5. doi:10.1016/S0146-0005(97)80013-4

Schein, E. H. (1983). The role of the founder in creating organizational culture. *Organizational Dynamics*, *12*(1), 13–28. doi:10.1016/0090-2616(83)90023-2

Schein, E. H. (1988). Organizational socialization and the profession of management. *Sloan Management Review*, *30*(1), 53–65.

Trevino, L. K., & Brown, M. E. (2004). Managing to be ethical: Debunking five business ethics myths. *The Academy of Management Executive*, *18*(2), 69–81. doi:10.5465/AME.2004.13837400

Trice, H. M., & Beyer, J. M. (1986). Charisma and its routinization in two social movement organizations. In Staw, B. M., & Cummings, L. L. (Eds.), *Research in organizational behavior* (*Vol. 8*, pp. 113–164). Greenwich, CT: JAI Press.

Trice, H. M., & Beyer, J. M. (1986). Cultural leadership in organizations. *Organization Science*, *2*(2), 149–169. doi:10.1287/orsc.2.2.149

Van de Ven, A. H., & Johnson, P. E. (2006). Knowledge for theory and practice. *Academy of Management Review*, *31*(4), 802–821. doi:10.5465/AMR.2006.22527385

Weber, M. (1947). *The theory of social and economic organization* (Henderson, A. M., & Parsons, T. (Trans. Eds.)). Glencoe, IL: The Free Press.

Whitman, M. (2010). *The power of many: Values for success in business and in life*. New York, NY: Three Rivers Press.

Section 3
Values

Chapter 7
Location Value

ABSTRACT

Understanding that location value is a critical factor to organizations with regards to people and technology is what this chapter strives to achieve. Location value can be synonymous with power. It can represent power of position, power to generate revenue, power to leverage resources, and power to serve as a catalyst for change. As with any source of power, it has the ability to provide an asset or to be a liability. The location value of people and technology in the workplace can serve as asset or liability depending upon placement. Maidique and Hayes (1984) also noted that "organizational agility seems to be associated with organizational flexibility–frequent realignments of people and responsibilities as the firm attempts to maintain its balance on shifting competitive sands" (p.21). Making the necessary realignments of people requires knowledge of their location value within the organization. This chapter addresses examples of technology location value, which includes capital expense, engineering expertise, and infrastructure changes against people location value, which includes cohesiveness in assigned environment, organizational culture, and career development. The author suggests that there seems to be reluctance on part of the organizations to fully commit the same resources for people location value as they do for technology location value.

INTRODUCTION

Location, location, location is the mantra often heard from real estate executives. It is understood from the real estate market that location adds value to a commodity or entity (Figueroa, 1999; Gallimore, Fletcher, & Carter, 1996; Thériault, Des Rosiers, Villeneuve, & Kestens, 2003). Sometimes location value is inherent and obvious. At other times it must be created and marketed for premium effect. Location is just as important to organizations' competitive advantage. Leaders spend inordinate amounts of time and resources locating the perfect placement for technology within and outside the organization. Information technology companies compete aggressively for the location to place communication towers. Location of the towers to transmit signals is critical to maintaining customer satisfaction and loyalty in their cellular phone businesses. AT&T, Verizon and Sprint understand the value of technology location outside the organization. They also invest

DOI: 10.4018/978-1-4666-0240-3.ch007

in technology location inside the organization as they seek to house servers in buildings that are conducive to their remaining operational at all times. The country of Japan and subsequently all countries that have nuclear facilities are evaluating the feasibility of placing nuclear reactors in earth quake zones since the 2011 earth quake and tsunami disaster. Do these and all other organizations understand the location value of people inside and outside the organization?

Maidique and Hayes (1984) noted that:

Even a superficial analysis of the most successful high-technology firms leads one to conclude that they are highly focused. With few exceptions, the leaders in high-technology fields, such as computers, aerospace, semiconductors, biotechnology, chemicals, pharmaceuticals, electronic instruments, and duplicating machines, realize the great bulk of their sales either from a single product line or from a closely related set of product lines. (p. 19)

Knowing the focus is equivalent to understanding the location value of the business and the technology's purpose. Most organizations do their best not to diversify away from their strengths. Yet, they may not know the location value of their people and may routinely ask them to diversify away from their strength; leading to reduced effectiveness.

Understanding that location value is a critical factor to organizations with regards to people and technology is what this chapter strives to achieve. Location value can be synonymous with power. It can represent power of position, power to generate revenue, power to leverage resources, and power to serve as a catalyst for change. As with any source of power, it has the ability to provide an asset or to be a liability. The location value of people and technology in the workplace can serve as asset or liability depending upon placement. Maidique and Hayes (1984) also noted that "organizational agility seems to be associated with organizational flexibility – frequent realignments of people and responsibilities as the firm attempts to maintain its balance on shifting competitive sands" (p.21). Making the necessary realignments of people requires knowledge of their location value within the organization.

This chapter addresses examples of technology location value which includes capital expense, engineering expertise, and infrastructure changes against people location value which includes cohesiveness in assigned environment, organizational culture, and career development. The author suggests that there seems to be reluctance on part of the organizations to fully commit the same resources for people location value as they do for technology location value.

BACKGROUND

Power and structure inside organizations may be derived from the central position of individuals (Burkhardt & Brass, 1990; Brass & Burkhardt, 1993). The impact of employees' actual and perceived power within organizations is based upon their strategic placement or location within the organization (Brass & Burkhardt, 1993; Pfeffer, 1994). The location value that an organization may gain from employees can be established through their placement within the career development structure of the organization as well (Banks, 2006; Banks & Nafukho, 2008, Holland, 1973; Kaye, 1997, Schein, 1975, Super, 2002; Vardi, 1980; Vroom & MacCrimmon, 1968). One must also consider internal and external location value of the employee to the organization (Vroom & MacCrimmon, 1968). Vroom & MacCrimmon (1968) suggested that "organizations develop rules or policies that impose some control over personnel movements, such as retirement at 65, promotion from within, giving new college graduates a variety of training assignments before assigning them to positions of responsibility and so on" (p.28). All of these factors remain relevant in today's

global economy. Internal and external location of the employee has the potential to significantly impact the employees' performance and value to the organization.

Technology and employees both have location value within organizations. Technology's location value is emphasized through capital expenditures used to enhance the size and functionality of a firm through the purchase of technology, the use of engineering expertise to design and develop space for installation of technology, and infrastructure changes; which may include the purchase of new buildings, additions to current facilities, or rearrangement of current infrastructure to accommodate or add technology (Nakajima, 1988; Rosenberg, 1972; Tushman, M. L. & Anderson, P., 1986). Organizations use planning techniques to prepare themselves for integration of new technology. The British termed this process which focuses on the equipment supplier, engineering firms, and the equipment user "Terotechnology" in 1970 (Nakajima, 1988).

In stark contrast, lesser preparation occurs within organizations for employee cohesiveness in the assigned environment including smaller financial investment in the areas of preparation, planning, or consideration. Furthermore, less emphasis on employees' adaptability to organizational culture is a concern. Firms do encounter expenditures during the hiring process not limited to job searches, interviewing time, drug screens, and assessments; but, these expenses are not nearly as generous as the amount of capital expenditures. Organizations justify this difference because much of the capital expenditures are tax deductible and save the organization money. Hughes (2010) proposed that if there were more of an investment by organizational leaders in employee cohesiveness to environment and adaptability to organizational culture, the location value of the employee to the organization would increase (Nakajima, 1988; Tushman, M. L. & Anderson, P., 1986). The extent to which the organization's core values are executed throughout the organization has an effect on employee performance and retention as well as an employee's location value to the organization (Wenstop & Myrmel, 2006). Core placement of employees must be aligned with core values of the organization. There are instances of employee placement based upon social affiliation or familial relationships. Decisions for placement or location of employees should align with employee performance and organizational needs to achieve performance goals. The employee's power to be effective is directly tied to where the employee is assigned to work and if they are capable of performing the work.

Location value may provide employees with a sense of belonging to an organization and this in turn may increase their productivity. Length of service on a specific job leads to higher productivity as the employee becomes more proficient at the job over time. Many hours are wasted on the job when employees are inadequately placed within organizations. They are limited in their ability to maximize their potential to the benefit of the organization (Swamy, 2004; Qureshi, Briggs, & Hlupic, 2006).

Hughes (2010) also proposed that 1) employee performance increases as their comfort with the environment increases and their location value is known and valued by the organization; 2) as organizational investment, not necessarily monetary, in employee cohesiveness to environment and adaptability to organizational culture increases, employee performance and retention increase; and 3) organizations' career development strategies' success or failure may depend upon the proper placement of employees internally and externally to the organization.

MAIN FOCUS OF THE CHAPTER

As organizations continue to expand their capabilities of meeting customer needs, they seek to invest their financial resources in ways that will grow their business. On the typical balance sheet which

Table 1. Balance Sheet

ASSETS	LIABILITIES AND EQUITY
Current Assets: Cash and cash equivalents Marketable securities Trade receivables, net Inventories Deferred tax assets Prepaid expenses and other current assets **Total Current Assets** **Non-Current Assets:** Property, plant and equipment, net Intangible assets, net Goodwill Deferred tax assets Other assets **Total Non-Current Assets**	**Current Liabilities:** Notes payable, current and other current borrowings Accounts payable Accrued compensation and related benefits Deferred revenues Other current liabilities **Total Current Liabilities** **Non-Current Liabilities:** Notes payable and other non-current borrowings Income taxes payable Deferred tax liabilities Other non-current liabilities **Total Non-Current Liabilities** **Equity**
TOTAL ASSETS	**TOTAL LIABILITIES AND EQUITY**

represents what a company and its stakeholders value, there is no direct reference to people. An example of the items reported on a balance sheet is shown in Table 1.

There is no quick way to find people under assets, but one can infer that people are covered under *accrued compensation and related benefits* which is a liability for the organization. However, it can be quickly discerned that technology is directly referred to as an asset to the organization under *property, plant and equipment, net* and is difficult to find under liabilities. This may be anecdotal evidence in this book, but if one were to look at the balance sheet of all organizations, there is no direct reference to people but there is to technology. Since this information is taught in every business school in America, it is not a surprise that people appear to be valued less than technology in the workplace. The purpose of this book is to provide a starting point for management to shift their thinking just enough to consider people as an asset rather than a liability and to value the five value assets that they bring to their job performance. Research on how people are referred to on the balance sheet may be a place to start teaching this concept in business schools.

Technology Location Value

Capital Expense

Capital expenditures are expected of organizations who want to remain competitive in the global economy. This type of investment can occur through mergers and acquisitions, hostile takeovers, outsourcing, partnerships, or through direct purchase of equipment, machinery, and other types of technologies. Publicly traded corporations are judged by their stockholders based upon how and why they make capital investitures. They are accountable to their shareholders and must generate a profit and try to leverage resources to obtain the best value at a reasonable cost to the organization. Because of this sometimes hyper scrutiny, organizations may make capital expenditures that may not necessarily align with the overall strategy. These organizations usually spend a lot of time planning before making strategic technological purchasing decisions; however, if a competitor beats them to the market with a product, it is often a race to catch up to try and gain market share. As noted earlier, they may receive a tax credit for investing in technology as well. There is often a time limitation within which the tax credit is available and this may influence organizations to invest in

technology that they may not be prepared to use effectively. Thus, they may resort to mergers and acquisitions or hostile takeovers instead in order to be able to compete more quickly. Organizations need assets to compete whether they are service organizations or product generating. If they are service organizations, their typical capital expense is in real estate; hence, location value is essential. It must be in a place that benefits its customers. One particular location value example that has received widespread attention in the global economy is the location of call centers, specifically in India that are servicing customers in America. Because of the dialect differences, there were many customer complaints; thus some call centers are beginning to place their facilities in low-income communities particularly in southern states in the US. Location has a direct impact on the bottom line revenues of the organization when it determines whether a customer is retained or is lost to competitors.

Engineering Expertise

Engineering expertise is tied directly to technological functionality. If the technology is not appropriately designed and integrated in the correct location within organizational systems and processes, organizations experience substantive revenue loss. In contrast, when the technology location meets the needs of the organization, then substantial revenue gains can occur and reduced costs. Engineering expertise is a premium cost for many organizations as they try to remain technologically competitive. Technology changes rapidly, so organizations need to have engineers available inside and outside the organization who can respond as quickly. Engineers would be termed by Drucker (1999) as knowledge workers. Engineers are associated with technology in this book because of the dependence of organizations on their technological expertise and because they are generally well paid for their work. Their salaries are often factored into technological expenditures when wage employees are sometimes not.

Infrastructure Changes

Infrastructure changes are often necessary to accommodate new technology or expansion of current technologies. There may be new structures built at current locations or re-design of current structures to accommodate new technology. Most often rapid expansion occurs to meet consumer needs. Many times infrastructure changes have been forecasted and planned for years in advance. Anticipation is acceptable in this regard.

Infrastructure in the trucking industry can be described from a continuous movement perspective. Transport trucks are the prime infrastructure of transportation companies such as FedEx, UPS, and JB Hunt in which thousands of trucks are on the move at any given time. Tracking this infrastructure has been a huge source of income management. Knowing the location of the trucks is essential to meeting customer needs; therefore, the location value is the reason for the continuous investment in the technology to maintain awareness, 24 hours a day for each of the trucks. In this context the author is not suggesting that people are to be watched 24 hours a day similar to the concept of micromanagement, but that when they are on location for an organization, the organization must understand where they are and why and how their placement benefits or hinders growth for the organization.

People Location Value

What is a job? How does it differ from a position? Generally a position is thought of in terms of the work needing to be done such as fireman, faculty member, and IT manager. A job, although not characterized this way in everyday conversations, is how many people are needed to perform within a certain position such as five firemen, 20 faculty members, etc. Therefore, an organization could have many jobs, but for all the same positions. Job and position are used interchangeably, but they are technically different.

An organization determines what needs to be done and what kinds of resources are needed for it to be competitive and uses this information to design jobs that are applicable. Designing a job is extremely important because the job must be suitable for helping the organization accomplish its goals. Sometimes jobs are created and have no long-term viability for the organization and have to be eliminated. It is counter-productive to create a short-term job for a long-term position.

Once the positions and jobs are established, organizations must find the right people to fill them. There are many approaches that organizations can take to fill its open positions. Employees within the organization can be developed to fill current positions; thus, eliminating the need for external searches. Organizations can conduct an outside search once they determine that there is no one inside the organization that wants or is qualified to perform the position responsibilities. Having the wrong people in organizations, in the wrong positioncan be a recipe for disaster. Having the right people working in the wrong position is also a travesty.

Cohesiveness in Assigned Environment

Optimizing options; how much power does an employee genuinely have in optimizing his options in the work place? It has been shown, in a 2009 Society of Human Resource Management (SHRM) survey, that over 90% of Human Resource (HR) professionals are not comfortable with current performance appraisal systems. Welch (2005) referred to this phenomenon as well. Millions of employees' workplace fates are determined based upon receiving adequate and accurate feedback through performance appraisal systems in the workplace; yet, the people responsible for the systems are not comfortable with them. Their options for enrichment, vertical movement, lateral movement, realignment, relocation, and exploration of other potential options have all been dictated by performance appraisal systems within the workplace. If 90% of the individuals enforcing these systems are not confident in the systems, have employees been misled all of these years in workplaces throughout the country?

HR management and corporate leaders must consider the effect of their decisions to use unreliable systems on employees who are depending on their leaders to make trustworthy and dependable choices for their career success. Consider if employees are sincerely being given the opportunity to optimize their options. Are the goals that are established for employees within the work environment specific, measurable, attainable, relevant, and time-bound (SMART) goals? Are they being asked to provide reasonable results that are accurately and objectively assessed? Can they successfully form a cohesive bond within the assigned environment if the performance appraisal systems are suspect? Are there multiple ways to assess employee performance within the workplace in addition to the traditional appraisal systems?

According to Pfeffer (1992), "organizations have career systems in place that tend to reward and encourage activities and skills more generously than others…Therefore, those who rise to positions of influence and who benefit from this career system have a particular set of skills and have engaged in a particular set of activities – those favored by the system " (p. 318). Therefore, upon entry into any organizational system, individuals must build cohesive relationships and develop an understanding of the culture and career system they have entered. Employees are essentially interdependent and rely on each other more in today's work environments where team work is required and expected. Individuals must obtain power and the capacity to influence others to be successful within organizations. "It is critical that one be able to diagnose the relative power of various participants and comprehend the patterns of interdependence. One needs to know and understand not only the game, but also the players" (Pfeffer, 1992, p. 49). Cohesiveness is dependent

upon understanding and developing interpersonal relationships with others in the workplace.

It is perhaps easy to suggest that employees work in teams and become a cohesive unit; however, because of the many personalities involved in team formation, it takes motivation for employees to work together and remain united through the duration of projects. Definitions of motivation have three common denominators.

They are all principally concerned with factors or events that energize, channel, and sustain human behavior over time. In various ways, contemporary theories of work contemporary theories of work motivation derive from efforts to explicate with increasing precision how these three factors interrelate to determine behavior in organizations. (Steers, Mowday, & Shapiro, 2004, p.379)

Motivational theories also have models that help to explain their characteristics. According to Steers & Porter (1979), the basic building blocks of a generalized model of motivation are needs or expectations, behavior, goals, and some form of feedback. Banks' (2006) model incorporates all of these building blocks from the perspective that individuals must address their personal goals and expectations, which effect job choice and on-the-job behavior. Employee feedback will be internal, within themselves, and external, from others in their organization.

Porter and Steers (1973) were concerned with the potential role of "met expectations" on a person's withdrawal behavior, which is their tendency to be absent, avoid participation in optional organizational activities, or, in the extreme, quit. They defined met expectations as the "discrepancy between what a person encounters on this job in the way of positive and negative experiences and what he expected to encounter" (p.152). Individuals must establish expectations of building relationships with others when they start a job and be open to adjusting to positive and negative experiences based on an understanding of how such experiences relate to job performance success. Using met expectations hypothesis, Porter and Steers predicted that when an individual's expectations are unmet, that person's propensity to withdraw will increase. Met expectations is essentially a measure of job satisfaction. Being able to retain employees in designated locations within the organizations is one element for success.

Irving and Meyer (1995) tested the met expectations hypothesis using difference scores reflecting the discrepancy between post-entry experiences and pre-entry expectations and found problems. The problems were that difference scores yielded artificial relationships with outcome variables. Using direct measures required respondents to indicate the extent to which they perceived that their pre-entry expectations concerning their positions have been confirmed through their experiences in the position. So, when direct measures of met expectations are used, respondents are implicitly assumed to compare their expectations and experiences mentally. "Scores on the measure are assumed to reflect the "match" between these variables. If this is true, it should be possible to show that direct measures of met expectations reflect independently obtained measures of expectation and experiences approximately equally" (p. 1160). This concept can be used to measure employee perception of their location value. Are their perceptions of their location value in the organization what they expected?

A weakness of direct measures is that of requiring individuals to recall their prior expectations after having been in the position for some time. Employees' recollections of pre-entry expectations are filtered by more recent experiences and behaviors and are thus tainted or biased by the experiences. To moderate this weakness, organizations can have employees establish and document baseline goals and expectations upfront and measure them throughout their time in the position. Hence, determining how well their expectations are being met through their own and organizational efforts. This is an area where

more research is needed. A study the measures the gap, if any, between expectations and experiences of individuals from their point of entry into the workplace and a pre-determined time-frame that they remain within the organization could be beneficial to the organization as they attempt to create a unified team of workforce participants. A study that determines whether or not successful individuals had personal goals and expectations and the extent to which they believe those goals and expectations influenced their success could also be beneficial especially if an organization does not often hire new employees and want to enhance the cohesiveness of current employees to the work environment.

Organizational Culture

Organizational culture considers the philosophy that exemplifies an organization's orientation toward its customers and employees and the rules, written and unwritten, which dictate how a member of the organization should act to 'get along (George, Sleeth, & Siders, 1999; Ouchi, 1981; Pascale & Athos, 1981; Ritti & Funkhouser, 1982). Culture also affects members of an organization by influencing behavior and performance outcomes, including economic efficiency (Camerer & Vepsalainen, 1988; Deal and Kennedy, 1982). Organizational culture is a component of the location value of an employee. Comfort with the culture of the organization can enhance location value for employees. Being able to adjust to job transfers and subcultures within the organization is a vital component in determining whether or not an employee will stay at a specified location within the organization or even with the organization at all. Multinational organizations have locations throughout the world. Moving employees from one location to another has become common place; thus, it is essential for organizations to try and maintain consistency within its organizational culture. There are occasions where there will be slight differences in the culture, but it should not be to the extent that employees choose to leave the organization because of the culture differences.

Career Development

A career is a pattern of work-related experiences that encompass the course of a person's life. Appropriate career development is essential if an individual seeks a successful, long-term career and individuals must be responsible for their own career development. In today's global economy this is a tremendous adjustment for some workers to make since they were, previously, only responsible for showing up for their position when scheduled and following the script within their particular workplace. In today's high powered workplaces, the speed of change has forced individuals and organizations to change and adapt. Understanding the career progression process and the potential benefits for both the individual and the organization is key to success for all involved. The individual benefits through understanding what it takes to carve out a career that aligns with their knowledge, skills, and abilities (KSAs). The organization benefits from dedicated employees who want to stay and build a career with their organization.

Organization leaders insist that people are the heart of the organization. In order for the heart to thrive it must be nourished (Lawler, 2003). Career development is one way for organizations to provide proper nourishment to employees within the workplace. The bottom line is affected by having the right people on the right jobs doing the right things at the right time. Choosing the most suitable career development strategy that is most appropriate for the organization and the individuals who will be affected by the strategy is essential. Organization leaders and employees must communicate to the extent that they understand each other's expectations, goals and/or aspirations. One of the worse things an organization could do would be to establish a career development strategy of 'if we build it they will come' inferring that there is

no need to encourage the employee to participate in the development of the strategy. Why? There is no guarantee that "they" will come. Active analysis and involvement by all stakeholders will help to ensure appropriateness of resources. There is no absolute right choice, but there should be an attempt to achieve a return on investment from a people and cost perspective. Younger employees are sometimes more eager than senior members of the staff for career development. However, in this fast-paced economic environment, all employees need to be competent, flexible, and knowledgeable in all areas of their development. System-wide, flexible and appropriate strategies must be established.

The individual, the group, the organization system, and organizational dynamics are found within all organizations though they vary based upon the organization. Yet, individuals entering the workplace must recognize and understand these elements and prepare to develop their careers within the opportunities presented and despite the constraints that they may encounter. Robbins (2005) suggested that in the "boundaryless career, the organization's responsibility is to build employees' self-reliance and help them maintain marketability through continuous learning. Specific ways that this can be accomplished are to clearly communicate the organization's goals and future strategies, create growth opportunities, offer financial assistance, and provide time for employees to learn" (p.594). Employees must be aware of this shift in career planning and adapt accordingly especially if they are entering and re-entering the workplace (Karsten & Igou, 2005).

ISSUES, CONTROVERSIES, PROBLEMS

Career paths represent the chronological order of career progression in organization (Isaacson and Brown, 1997; Leibowitz, Farren, and Kaye, 1986). Career paths are used to assist with development of career plans for individuals. Usually, an employee's career paths for each job are determined based on organizational promotional practices (Isaacson & Brown, 1997). However, few organizations provide career counseling or planning assistance to employees as they seek to progress along the paths. There are many opportunities for employees to obtain career development information both inside and outside of the organization. Gathering new information also is essential when changing units within or moving to a different organization. It may be in the organization's best interest to establish transparent career paths for its employees, so they can have some control over and better management of employee location value.

The unacceptable nature of anticipation with regards to people is a limiting factor with regards to people location value. Because of historical, discriminatory practices in the US, there are several laws that organizations must adhere to (i.e., sexual harassment, racial and ethnic, age, disability) so that they cannot make decisions which are perceived to be stereotypical and adversely judgmental. These factors limit their ability to forecast workplace selection strategies. One example is with the American Disabilities Act (ADA). Many organizations have integrated ADA regulations into the position description so that those with disabilities could clearly understand the position responsibilities. Organizations tend to plan ahead only when required by restrictive laws as opposed to integrating based upon business demands. Admittedly, many of these laws are warranted, but there still needs to be ways organizations can determine how to manage the location value of employees from positions that are not mandated, preventatively influenced as a way to avoid punishment, and because of fear of legal action.

It appears natural to hear unions being blamed for diminishing relationships between organizations and their employees; however, legal action through class action lawsuits has had more effect on reducing the effectiveness of unions than any-

thing else other than government agencies that are sometimes negligent in their enforcement of their guidelines. Even with the establishment of government agencies in response to union pressure, there is a lack of enforcement of regulations. For example the BP Gulf Oil spill resulted in many government officials losing their job for not enforcing policies. The Mining and Occupational Safety and Health Administrations (MSHA and OSHA) have also been shown not to properly enforce regulations. An example is the West Virginia Mining disaster of 2010. Agencies administer violation citations with very little enforcement; yet, they use these organizations to say that unions are no longer needed. The Food and Drug Administration (FDA) is another example; despite its existence there are still huge outbreaks of food poisoning such as the 2010 salmonella outbreak from eggs. After legal actions are complete, organizations are forced through court order to make adjustments.

Many employees have not had to think about anything other than doing their assigned work at their place of employment. They have not been asked to map their career or if they even have a career strategy. Employees may not be able to distinguish between having a career and having a job. Career change occurs for many workers after they have been laid off from a job and are tasked with obtaining another one. The next step on their journey tends to be the unemployment office, temporary agencies, and/or One-Stop centers for re-training. If they are lucky they may have a copy of their resume or employee development plan to help them map out a career strategy. They may know the position they were in and how valuable their being in the position was to the organization, but they may not know how to integrate that experience into a future career.

Solutions and Recommendations

Sometimes organizations nor employees recognize the value of an employee to the organization until the employee is no longer there. This should not be the case. Employees and organizations should both understand the location value that an employee brings to the organization. In contrast to technology, organizations recognize their value upon purchase because they often insure the equipment against failure. For example, if an electrical storm disrupted production and in process product was destroyed at the time of the disruption, the organization would file an insurance claim to recover the loss. The value of the equipment is also immediately seen when it stops working. Whitman (2010) succinctly describes an example of the value of technology when EBay encountered a system outage and EBay had to compensate its customers millions of dollars because of their loss during the outage.

Employees' location value is intuitively known because when they make an error on the job, they are reprimanded or in some cases fired because of the loss to the organization. They also receive compensation for their work produced at work. This chapter seeks to enhance employee location value for the employee and the organization. Are there ways to ensure that the employee is in the position that brings the most value to the organization? For example, should an employee be promoted because they are a high producer or should they be promoted because they have the ability to train and develop others to produce in ways similar to what they have achieved? There are times when assumptions regarding causality are made and people are moved from one location to another to the detriment of the employee and the organization. There are many examples of this occurring. Organizations must do a better job assessing the location value of their employees. They should work on determining ways to avoid having to fire or reprimand employees by placing them in positions that are more suitable to their KSAs (see chapter 8). Other questions for organizations to consider as they review their technology location value and people location value include: What is the location value of employees within the organization? In what

way(s) is location value of employees essential to productivity and/or competitive advantage of an organization? How can people value be more directly expressed on the balance sheet? What is the relationship of career development strategy to location value of employees; internal and external to the organization?

FUTURE TRENDS

Organizations and participating practitioners within the field of career development have a challenging job. They must be committed to helping others succeed. As the global workplace expands, they must be well versed in different cultures and the needs of employees who are of different nationalities. As economic conditions change organizations continue to restructure and reinvent themselves. They often accomplish these changes through technological means, but they also must begin to view people changes in similar ways. They must recognize the needs of dedicated employees who want the organization to invest 1) in their potential to establish unity within their assigned environment; 2) their ability to adapt to the organizational culture; and 3) their desire for a career that is sustainable. These investments should be in ways similar to how the organization invests in capital expenditures, engineering expertise, and infrastructure changes for technology.

Since the introduction of the Workforce Investment Act in 1999, the field of career development has continued to expand. As workforce development efforts are streamlined and agencies are combined within regions of the states, organizations must be flexible and open to change and understand that employees and potential employees are in need of career development help. The many stakeholders who interact with these One-Stop centers such as businesses and educational institutions must remember that the employee is the essential ingredient. Assisting employees with establishing a career track and obtaining needed education and/or training will be a benefit for all involved. If the employee is not developed, businesses will not succeed to the fullest extent possible, educational institutions will not meet student enrollment goals, and private practitioners will be seeing fewer clients.

As location value is understood, organizations may want to understand the extent to which the cultural environment affects the location value of employees in the workplace. They may also want to understand the way(s) location value of employees is essential to productivity and /or competitive advantage of an organization (Hughes, 2010).

CONCLUSION

The concepts described in this chapter that embody location value are not new concepts nor are they all encompassing; however, they do provide a direct contrast to the ways technology's location value is respected in the workplace and how people location value is often not respected. Location value of people and technology to the organization are both fundamentally important. Hamrick and MacMillan (1984) stated that "No sane management deliberately makes a capital investment to bring about low ROI. Rather the low ROI occurs when the estimates assumptions that go into the capital investment proposal fall apart" (p.68). The same can be said regarding people investment. Organizations do not want to lose money but must be diligent when making assumptions concerning people.

This chapter is not suggesting that organizational leaders choose technology or people over the other, but to acknowledge and understand both and use that knowledge to enhance and improve organizational performance. Location value in and of itself may not help the organization achieve its goals, but it is one of the five values that people bring with them to the organization. This value must be cultivated and supported so that employees

can reach their potential within the organization. One analogy that may be worthwhile to consider is the 4-H symbolism of Head, Heart, Hands, and Health. The 4-H organization's goal is to nourish each of the 4-H's of the person. The location value is just one of the five values of a person's location, use, maintenance, modification, and time values that they bring with them to the organization to help the organization succeed in the global economy. Without all of the values operating in sync, employees are not fully capable of reaching their full potential and organizations miss out on the opportunity to leverage the employees' full potential for competitive advantage in the global marketplace.

REFERENCES

Banks, C. H. (2006). Career planning: Toward an inclusive model. In Karsten, M. (Ed.), *Gender, race and ethnicity in the workplace* (*Vol. 3*, pp. 99–116). Westport, CT: Greenwood. Publishing Group, Inc.

Banks, C. H., & Nafukho, F. M. (2008). Career transitions across and within organizations: implications for human resource development. In T.M. Chermack & J. Storberg-Walker (Eds.), *2008 Academy of Human Resource Development Annual Research Conference Proceedings,* (pp. 1096- 1102). Bowling Green, OH: Academy of Human Resource Development.

Brass, D. J., & Burkhardt, M. E. (1993). Potential power and power use: An investigation of structure and behavior. *Academy of Management Journal*, *36*, 441–470. doi:10.2307/256588

Burkhardt, M. E., & Brass, D. J. (1990). Changing patterns or patterns of change: The effects of a change in technology on social network structure and power. *Administrative Science Quarterly*, *35*, 104–127. doi:10.2307/2393552

Camerer, C., & Vepsalainen, A. (1988). The economic efficiency of corporate culture. *Strategic Management Journal*, *9*(Special Issue), 115–126. doi:10.1002/smj.4250090712

Deal, T., & Kennedy, A. (1984). *Corporate cultures*. Reading, MA: Addison-Wesley.

Figueroa, R. A. (1999). Modelling the value of location in Regina using GIS and spatial autocorrelation statistics. *Assessment Journal*, *6*(6), 29–37.

Gallimore, P., Fletcher, M., & Carter, M. (1996). Modelling the influence of location on value. *Journal of Property Valuation Investment*, *14*(1), 6–19. doi:10.1108/14635789610107444

George, G., Sleeth, R., & Siders, M. (1999). Organizing culture: Leader roles, behaviors, and reinforcement mechanisms. *Journal of Business and Psychology*, *13*, 545–560. doi:10.1023/A:1022923005165

Hamrick, D. C., & MacMillan, I. C. (1984). SMR forum: Asset parsimony- Managing assets to manage profits. *Sloan Management Review*, *25*(2), 67–74.

Holland, J. L. (1973). *Making vocational choices: A theory of careers*. Upper Saddle River, NJ: Prentice-Hall.

Hughes, C. (2010). "People as technology" conceptual model: Towards a new value creation paradigm for strategic human resource development. *Human Resource Development Review*, *9*(1), 48–71. doi:10.1177/1534484309353561

Irving, P. G., & Meyer, J. P. (1995). On using direct measures of met expectations: A methological note. *Journal of Management*, *21*, 1159–1176. doi:10.1177/014920639502100608

Isaacson, L. E. & Brown, D. (1997). *Career information, career counseling, and career development*. (6th ed.). Boston, MA: Allyn & Bacon.

Karsten, M. F., & Igou, F. (2005) Career planning: A model for a diverse workforce. *Refereed Proceedings of the North American Management Society track at the 2005 Midwest Business Administration Association Conference.* Chicago. IL: MBAA.

Kaye, B. (1997). *Up is not the only way*. Englewood Cliffs, NJ: Davies-Black.

Lawler, E. E. III. (2003). *Treat people right!: How organizations and individuals can propel each other into a virtuous spiral of success*. San Francisco, CA: Jossey-Bass.

Leibowitz, Z. B., Farren, C., & Kaye, B. L. (1986). *Designing career development systems*. San Francisco, CA: Jossey-Bass.

Maidique, M. A., & Hayes, R. H. (1984). The art of high-technology management. *Sloan Management Review*, *25*(2), 17–31.

Nakajima, S. (1988). *Introduction to total productive maintenance*. Portland, OR: Productivity Press.

Ouchi, W. (1981). *Theory Z*. Reading, MA: Addison-Wesley.

Pascale, R., & Athos, A. (1981). *The art of Japanese management*. New York, NY: Simon &Schuster.

Pfeffer, J. (1992). *Managing with power*. Boston, MA: Harvard Business School Press.

Pfeffer, J. (1994). *Competitive advantage through people: Unleashing the power of the workforce*. Boston, MA: Harvard Business School Press.

Porter, L. W., & Steers, R. M. (1973). Organizational, work, and personal factors in employee turnover and absenteeism. *Psychological Bulletin*, *80*(2), 151–176. doi:10.1037/h0034829

Qureshi, S., Briggs, R. O., & Hlupic, V. (2006). Value creation from intellectual capital: Convergence of knowledge management and collaboration in the intellectual bandwidth model. *Group Decision and Negotiation*, *15*, 197–220. doi:10.1007/s10726-006-9018-x

Ritti, R., & Funkhouser, G. (1982). *The ropes to skip and the ropes to know*. Columbus, OH: Grid.

Robbins, S. P. (2005). *Organizational behavior* (11th ed.). Upper Saddle River, NJ: Pearson Prentice Hall.

Rosenberg, N. (1972). *Technology and American economic growth*. Armonk, NY: M. E. Sharp.

Schein, E. H. (1975). How career anchors hold executives to their career paths. *Personnel*, *52*, 11–24.

Steers, R. M., Mowday, R. T., & Shapiro, D. L. (2004). The future of work motivation theory. *Academy of Management Review*, *29*, 379–387.

Steers, R. M., & Porter, L. W. (1979). *Motivation and work behavior* (2nd ed.). New York, NY: McGraw-Hill Book Company.

Super, D. (2002). A life-span, life-space approach to career development. In Brown, D., & Brooks, L. (Eds.), *Career choice and development* (2nd ed.). San Francisco, CA: Jossey-Bass. doi:10.1016/0001-8791(80)90056-1

Swamy, M. R. K. (2004). Does non-inclusion of intangible asset values lead to distortion of financial statements and mislead judicious financial decision making? Focus on environmental accounting and estimation of knowledge capital values. *Journal of Financial Management and Analysis*, *17*(1), 77–91.

Thériault, M., Des Rosiers, F., Villeneuve, P., & Kestens, Y. (2003). Modelling interactions of location with specific value of housing attributes. *Property Management*, *21*(1), 25–62. doi:10.1108/02637470310464472

Tushman, M. L., & Anderson, P. (1986). Technological discontinuities and organizational environments. *Administrative Science Quarterly*, *31*, 439–465. doi:10.2307/2392832

Vardi, Y. (1980). Organizational career mobility: An integrative model. *Academy of Management Review*, *5*, 341–355.

Vroom, V. H., & MacCrimmon, K. R. (1968). Toward a stochastic model of managerial careers. *Administrative Science Quarterly*, *13*(1), 26–46. doi:10.2307/2391260

Welch, J. (2005). *Winning*. New York, NY: HarperCollins.

Wenstop, F., & Myrmel, A. (2006). Structuring organizational value statements. *Management Research News*, *29*, 673–683. doi:10.1108/01409170610715990

Whitman, M. (2010). *The power of many: Values for success in business and in life*. New York, NY: Three Rivers Press.

Chapter 8
Use Value

ABSTRACT

Use value can be described as a created value as leaders learn to create more value through effective use of employee skills and abilities within the workplace (Wenstop & Myrmel, 2006). Use value relates to the quality factor in a worker's productivity. Use value requires integrity and a relationship of mutual respect between the organization and the employee. With regards to technology use, organizations seek alternative uses for these assets. Organizations must consider the multidimensionality of the person prior to hiring and plan to make adjustments as needed. Sometimes organizational leaders do not want to move employees to areas that they may be more effective because of political ties and power struggles (Pfeffer, 1992). Organizational needs must trump individual or group struggles. The purpose of this chapter is to: (1) introduce the concept of use value; (2) analyze and compare examples technology use value including the idea that it is often known before purchasing how a piece of equipment is to be used, process control, and strategic planning with examples of people use value including selection strategy, person-job fit, and job analysis.

INTRODUCTION

Use value can be described as a created value as leaders learn to create more value through effective use of employee skills and abilities within the workplace (Wenstop & Myrmel, 2006). Use value relates to the quality factor in a worker's productivity. Drucker (1999) suggests that organizations already know how to define the task of the knowledge worker but does not define it because it requires controversy and dissent. Change from the norm to the uncomfortable demands a leap of faith on the part of the organizations' leaders and the employees who follow their lead. Organizations must be willing to define the task if they would like to actually extract value from the activity through the actions of the employee. Drucker (1999) also suggests that the only person who accurately knows the answer to the question "What is the task?" is the worker himself. Trusting the worker to answer this question so that it benefits the organization is essential. The competitiveness of organizations such as Apple is predicated on the efforts of Steve Jobs. Jobs' knowledge has been invaluable to Apple's success. Whenever there is any doubt about his ability to perform,

DOI: 10.4018/978-1-4666-0240-3.ch008

Apple's stock price depreciates in the marketplace. Use value requires integrity and a relationship of mutual respect between the organization and the employee.

With regards to technology use, organizations seek alternative uses for these assets. According to Hambrick and MacMillan (1984):

it is important to ask if there are alternative uses for assets within the firm. That is, can the asset be put to another use if demand for specific product does not materialize as planned? Or can the assets be moved to another part of the operations? (p.70)

These questions are also applicable for people. Thus, organizations must consider the multidimensionality of the person prior to hiring and plan to make adjustments as needed. HR managers and corporate leaders should be open to the use of iteration (Whitman, 2010) with regards to people. Managers take for granted that employees will be able to operate new technology. These leaders do not ask for or expect perfect technology, but they infer performance perfection from employees. Sometimes organizational leaders do not want to move employees to areas where they may be more effective because of political ties and power struggles (Pfeffer, 1992). Organizational needs must trump individual or group struggles.

This chapter (1) introduces the concept of use value; and (2) analyzes and compares technology use value including the idea of upfront knowledge of how a piece of equipment is to be used before purchase, process control, and strategic planning against people use value including selection strategy, person-job fit, and job analysis.

BACKGROUND

Marx (1906) explained in his labor theory of value that the "utility of a thing makes it a use-value" (p.13).

This author questions whether something has to be a thing or inanimate object to have use value. This may be a reason why slave owners could consider slaves to be property and not people. People have utility although it has not been recognized from this perspective. Locke (1691, as cited by Marx, 1906) noted that "the natural worth of anything consists in its fitness to supply the necessities, or serve the conveniences of human life" (p.28). Again, Locke was referring to inanimate objects and not his fellow human beings who were supplying the necessities and service. Both Marx and Locke are referring to when and how something is used to determine its value. There has been extensive debate regarding the economic implications of what Marx (1906) meant when he termed use-value (Böhm-Bawerk, Hilferding, & Sweezy 1984; Clay, 2006; Fromm, 1989; Park, 2006; Wilson, 2004). The term use value in this model and book simply informs the reader that people and technology each have use value. The use value of people and technology must be effectively managed so that the use value provides competitive advantage for the organization.. In most instances people and technology each enhances the value of the other. One example is that "Information technology now enables knowledge and expertise to become drivers of value creation and organizational effectiveness" (Venkatraman and Henderson, 1998, p.34). Böhm-Bawerk's (1984) strategy regarding the equivalence between labor and use-value is more applicable to this concept (Böhm-Bawerk, Hilferding, & Sweezy 1984; Clay, 2006; Park, 2006).

The use value of technology is expressed in process control and strategic planning efforts of organizations; it is known prior to purchasing how a piece of equipment is to be used. Ample time is allotted to determine how the technology fits within the process systems of the organization, so planning can be managed for technology's effective integration and use (Nakajima, 1988). However, not nearly as much time and/or knowledge is allotted to determining how an employee may

integrate or fit within the organizational structure and cultural environment (Baird & Meshoulam, 1988; Delery, 1998; Wright & McMahan, 1992).

The PT conceptual model, when integrated with the five values model has the potential to become a promising management practice to provide solutions when organizations struggle to implement their best practices. Without the right people in the right positions at the right time and without the right technology, organizations may not be able to successfully compete (Brache, 2002; Espedal, 2005; Martelli, 1998; Pfeffer, 1994; Stewart, 1999). Organizations have position descriptions that potentially match the person to the job description; however, the upfront planning and process integration used for technology development is much more sophisticated than that used for employee development (Aguinis & Kraiger, 2009; Morgeson & Campion, 1997). Job analysis may produce detailed job descriptions, but there are more gray areas and less precise analysis used to determine if there is a high-quality person-job fit (Becker, Huselid, & Beatty, 2009; Baird & Meshoulam, 1988; Delery, 1998; Wright & McMahan, 1992; Vroom, 1973). Organizations may need to reconsider the job design when determining person-job fit and the job design may need to be changed.

Person-job fit, selection strategy, and job analysis are methods used by organizations to determine the use value of the employee. The resume and interview process provide limited information on the usefulness of the person to the organization (Bossidy, 2001). Employees are much more complex than the resume and interview processes allow organizational leaders to determine (Huselid, 1995, Huselid, Jackson & Schuler, 1997; Ramsey 1986). Employees are expected to make decisions on the job, and these complex abilities are not easily measureable during the selection process. Understanding and application of use value may provide ways for organizations to encourage and manage employees' use of current and new technologies. Without maximization of employees' capability in the workplace, limited use of technology may occur. If one listens to business arguments, one hears that there are very few potential employees with the high technology skills businesses seek. The use of technology is only as valuable as the extent of the employee knowledge regarding the technology.

MAIN FOCUS OF THE CHAPTER

Historically, when referring to employee use, managers were perceived to be applying the term in a derogatory manner (i.e., the employee is being used). It has had negative connotations when employees felt they were being used by the organization because their pay was perceived as not equating to a reflection of their knowledge, skills, and abilities (KSAs) or their performance. Hughes (2010) suggested that there is an opportunity for organizations to enhance the use value of their employees in ways similar to how they maximize the use value of technology. Organizations must recognize the value in how they use the KSAs that employees bring with them to the workplace. Some of these KSAs are readily evident during the hiring process while others may be discovered through employee performance. Leaders can be myopic during the hiring process and only recognize the KSAs that are needed at that moment as opposed to looking for future potential of the employee. Employees are taught to look for organizations where they have the potential to grow, but not all organizations have the same idea when it comes to expanding the use of the employee beyond the obvious. This is especially true with regards to entry level positions in organizations. Organizations may need to establish expectations that all employees bring more than what is presented on the resume and revealed in the interview to the job. Sometimes organization leader do not refer back to the resume to understand the information provided; they just expect the employee to do what they need done and miss out on the opportunity to

create a win-win situation for the organization by having the employee share KSAs that enhances both the organization and the employee.

Defining organizational goals, setting a strategy to reach those goals, and developing a hierarchy of plans to integrate and coordinate activities is how planning is achieved in organizations. Detailed planning is associated more with operational functionality of technology and not so much with people. Employees do use daily planners to plan their daily activities to try and remain on task throughout the day. Who plans or integrates and coordinates their functionality so that all people are doing what is necessary each day to achieve organizational success?

As time progresses and organizations become larger and more complex, it is very difficult to know that all employees are utilizing the skills needed to propel the organization toward its goals. Sometimes the positions, individual tasks, and/or responsibilities that employees are assigned might no longer represent the best use of their KSAs. For example, when demand for a product wanes, there may be less demand for the number of employees producing that product; yet, employers maintain the same number of employees on the job when they could be using their skills elsewhere.

Unions have been criticized for strictly detailing what an employee can do on the job which is another added complexity for employee use value. Another example is when delivery drivers who are not equipped with customer service skills are asked to directly interact with customers. This is a huge mismatch that affects the organization's bottom line if the customer refuses to receive delivery of a product or service because of poor customer service from someone whose skills are not being appropriately used. Organizations need to increase the amount of planning time for determining how to best manage employee performance in ways similar to the amount of time spent when determining technology use.

Technology Use Value

Forecasting Technology Use

Technology use value is often predicated by customer needs and demands. To be competitive organizations must be able to predict or anticipate and understand customer needs ahead of time (Maidique & Hayes, 1984) and prepare to meet those needs. If an organization does not have the technology to meet customer needs, it is almost guaranteed that their competition does have the capability to provide the customer with desired product or service. Technology use value begins within the engineering strategy applied by the organization (Olmosk, 1972). The use value of technology is known prior to the technology being purchased by the organization. Organizations invest in technology because there is often a direct correlation between the technology and customer needs. People tend to be intermediary to the customer needs, so not as much planning is exercised when determining a person's use value, although there are cases where customers will only deal with certain sales representatives.

Even though the use value of technology is known prior to purchasing, the implementation of its use in the workplace can be a source of contention and confusion for employees. Leaders that use engineering strategy may not recognize that they are trying to bring about behavioral change in people without directly interacting with the people involved. It is rare for the employees who are expected to operate the technology to participate in engineering strategy planning sessions. The underlying assumption perhaps is that people will change when the environment within which they work changes. Engineering strategists spend an inordinate amount of time studying physical layouts, patterns of technological interaction, and role descriptions in workplaces without ever speaking to the employees which can be disastrous. For example, engineers ordered new roll-down tables for the preparation department

and did not speak with employees nor did they check to determine the size of the rolls of fabric that would be placed on the tables. They came out to observe the operation, but may have arrived when the rolls of fabric had been rolled down to smaller sizes on the table. They did not ask questions of the employees operating the equipment. They bought and installed the machine before realizing that the rolls of fabric were too large to fit the new machine. This decision resulted in lost productivity not only with production, but also with the installers of the equipment and with the processing and handling associated with ordering and receiving the equipment. This does not diminish the fact that the use value of the technology was known; however, it was not the right equipment for the particular product size.

Engineers have a high need for rationality and give the impression that technical skills are more important than interpersonal skills (Badawy, 1995). There are attempts to help technical employees enhance their interpersonal skills for better execution of technical strategies. Engineers are rewarded with influence or power by their perceived level of technical skills. Influence is exerted primarily by changing the task structure or the environment. Task relevance is determined through requests from operational leaders, and engineers are expected to evaluate data and make decisions accordingly. These engineers parse information to assist with decision making because many management problems are related to information flow.

Because management sometimes treats people like objects or machines when problems are being analyzed, employees are often resistant to changes that could be helpful. The people directly affected do not feel committed to the changes or do not understand them because their input is often disregarded. Engineering strategy is time consuming even though the need for change may be detected quickly; analyses and decisions concerning change requires time to implement (Cyert & March, 1963). Structural or environmental changes often produce unexpected results. Most organizations contain few people whose perspectives and power are broad enough to bring about widespread structural change. For this reason, the engineering strategy is issued most frequently by high-level managers. One question that may be ignored or suppressed by groups that use this strategy is, how will employees feel about the change? Because of the emphasis on rationality and efficiency, people's feelings are not considered to be important. Data are raw, unanalyzed facts, and information is data that have been analyzed and processed. Managers rely on information, not on data, to make decisions, but they should also include data from employees who perform the job every day when making some decisions. There is no substitution for the knowledge gained through firsthand experience.

Process Control

Process control is usually associated with organizations that produce products, but it can also be effectively used in service organizations. However, service organizations must implement technology in a non-intrusive manner. Control is the process of monitoring activities to ensure they are being accomplished as planned and within correct significant deviations. The control process consists of three separate and distinct steps: (1) measuring actual performance, (2) comparing actual performance against a standard; and (3) taking managerial action to correct deviations or inadequate standards (Robbins & Coulter, 2007). The control process assumes that standards of performance already exist. There are many techniques available to monitor the control of projects and activities within organizations. Deming (1982) introduced TQM processes, including control charts, into the workplace to allow managers to track and post employee productivity. This was, perhaps, the first time that employees were made aware of how their work was being measured and its impact on organizational performance.

Project managers use Program (or Project) Evaluation and Review Technique (PERT) systems to control the process of how their work is managed and documented. Regardless of the process control or system that an organization chooses to introduce, it must be in alignment with the organization's core perspective, culture, and within the capability of the employees to implement. No system is as good as the employees who are tasked with effectively implementing it. Many process control interventions fail because employees do not understand their purpose or how to read and understand the charts.

Strategic Planning

Organizations use strategic planning to try and anticipate customer needs and purchase the technology needed to beat their competition to market. Often when an organization is first to market with a product and it is successful, they gain market share and their competitors will have a difficult time taking that market share from them. One example is in the pharmaceutical industry where organizations compete to be the first to introduce a new drug that they can patent and control the market until the patent expires and generic manufacturers can then produce the drugs. Another example is with Apple's iPod, iPhone, and iPad; being first to market touchscreen phones and computers that were easy for customers to use, gave Apple huge market share that their customers are trying to take away.

There are many methods that organizations use to determine where they should focus their efforts such as Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis (attributed to Albert S. Humphrey) which is used to try and match the internal strengths and weaknesses of the organization with opportunities and threats in the competitive environment. Once the opportunities and threats are identified, the organization can gain value by seeking ways to exploit the opportunities and eliminate the threats and weaknesses to its success. The organization must also maintain its strengths. This is just one strategic planning method, but there are others including, cost-leadership, balanced scored, and appreciative inquiry that have been proven effective.

The best laid plans can easily go awry if not implemented properly. Because a strategy looks good does not mean that it is the correct choice for the organization. The goals of the strategy must unite and not alienate members of the organization. Although there may be disagreements, there should be ways to reach consensus so all members will respect and be supportive of the strategic process. Employees also need to be assessed to determine if they have the KSAs to implement the strategy or if there should be training initiated to ensure proper, effective execution.

People Use Value

Knowing the dominant perspective (cognitive, behavioral or cultural) within which the organization is operating becomes essential when determining people use value. If HR planners hire qualified individuals who fit not only the organizational climate but also the organizational perspective, there may be a better strategy established for selection and location of employees within the organization.

Selection Strategy

HR planning is a method of forecasting that is used to attempt to determine people needs of the organization. Despite the advanced forecasting techniques that have been developed, forecasting is far from being an exact science. Forecasting is limiting because the use of historical data may not be applicable for the continuously changing trends of the global economy. There is not a forecast that predicts exactly what an individual will do once they enter the workplace.

The requirements for HR Forecasting are derived from the business and organizational

planning activities and are designed to meet short-range, intermediate, and long-range goals of the organization. Many organizations use short-range forecasting, but this author suggests that forecasting should be a continuous process especially because of the changing dynamic of the marketplace. Sales forecasting is usually a continuous operation because organizations want to consistently meet customer demands. Organizations should continuously be aware of how their employees are performing and how their jobs are changing.

They do not need to hire continuously, but they need to continuously understand their employees to adjust their forecast not only with regards to numbers but also based upon performance.

Person-Job Fit

After planning is complete organizations recruit employees to meet plan goals through general and/or specialized recruiting. Recruitment sources can be internal or external to the organization. If they forecast continuously, there should be little time involved in determining if an internal candidate is available to fill a position. Most organizations consider both sources of candidates as the planning warrants. Investment in recruiting is more expensive when it is external to the organization because of advertisement and other promotional charges. Recruiting does not have to equal selection if the employee does not fit. Organizations also have probationary periods within which they can determine if the employee is an appropriate match. Yet, in many cases, probationary time is not effectively managed to further screen candidates for fit. Instead, the probationary time is often focused on employee productivity and signs of the employee's inability to fit within the organization are missed. This time is also spent training the employees. Despite the effort used by organizations to find the correct person for a position, there are instances when the relationship is a mismatch and does not work for either the person or the organization.

How do organizations determine what the employee values? How do organizations determine the skills employees have that are not being use within their current position? When employees are placed in environments that are not conducive to their success, or does not fit into the organization's culture, the organization may be using a broad employee use strategy that could lead to a misalignment between the person and job. Hughes (2010) proposed that as person-job fit becomes more specific through enhanced job analysis and selection strategy, employee use value increases. Sutton (2001) suggested that organizations consider hiring employees that are not perfect fits to meet the creative and innovative needs of the organization. His strategy is based on how the person's skills would be used to benefit the organization. He noted

If I were running a company that depended on innovation, I would go even further to import fresh knowledge: I would hire some people who had never tried to solve problems like the ones I was addressing. In the creative process, ignorance is bliss, especially in the early stages. People who don't know how things are "supposed to be" aren't blinded by preconceptions (p.99).

Following a job description in hiring and conducting panel interviews with score sheets that are the final hiring criteria can be very limiting with regards to being able to hire persons whose skills may be most useful to the organization. Because the information is not seen in the resume, many great employees never get an interview with the company. The resume must align with the job description for most organizations to entertain the thought of granting a candidate an interview. This structure is in place because of past discrimination against job candidates in the hiring process and is still warranted because of the continuing instances of these types of actions; however, there may be

ways for companies to enhance the application process so that all candidates receive a reasonable screening and still be creative in hiring. Being able to encourage organizations to devote more time, people, and money to exploring new ideas is difficult when they are content with exploiting the old ways of doing things (Sutton, 2001).

Job Analysis

A job analysis provides a detailed examination of work activities and is used to develop position descriptions and specifications for employee behavior. In some instances this is a threatening task because of the possibility that the job may no longer be needed. Inappropriate use of job analysis can cause fear and resentment from employees, managers, and union officials. Employees may become suspicious of losing flexibility on the job and that the job may become restrictive. Organizations must seek to alleviate employees' concerns that they may have done something wrong if the elements of their job must be closely scrutinized and recorded. This could be accomplished if job analysis became a routine function as opposed to being employed during economic downturns. Employees would explicitly know how to use their skills to perform the requirements for the position.

ISSUES, CONTROVERSIES, PROBLEMS

Organizations and commissions have been trying to determine the use value of employees within the organization. One such commission is the Secretary's [of labor] Commission on Achieving Necessary Skills (SCANS) Commission. The SCANS commission (1991) issued five directives. The directives were based on its discussions and meetings with business owners, public employers, unions, and workers and supervisors in shops, plants, and stores. The first directive pertains to use value within the workplace and provided five competencies in accordance with the ability to efficiently use (a) resources, (b) interpersonal skills, (c) information, (d) systems, and (e) technology. The commission then developed descriptions for the competencies to assist employers with the efficient use of:

Resources: Identifies, organizes, plans, and allocates resources

A. *Time*: Selects goal-relevant activities, ranks them, allocates time, and prepares and follows schedules
B. *Money*: Uses or prepares budgets, makes forecasts, keeps records, and makes adjustments to meet objectives
C. *Material and Facilities*: Acquires, stores, allocates, and uses materials or space efficiently
D. *Human Resources*: Assesses skills and distributes work accordingly, evaluates performance and provides feedback

Interpersonal: Works with others

A. *Participates as Member of a Team*: Contributes to group effort
B. *Teaches Others New Skills*
C. *Serves Clients/Customers*: Works to satisfy customers' expectations
D. *Exercises Leadership*: Communicates ideas to justify position, persuades and convinces others, responsibly challenges existing procedures and policies
E. *Negotiates*: Works toward agreements involving exchange of resources, resolves divergent interests
F. *Works with Diversity*: Works well with men and women from diverse backgrounds

Information: Acquires and uses information

A. *Acquires and Evaluates Information*
B. *Organizes and Maintains Information*
C. *Interprets and Communicates Information*
D. *Uses Computers to Process Information*

Systems: Understands complex inter-relationships

A. *Understands Systems*: Knows how social, organizational, and technological

systems work and operates effectively in them

B. *Monitors and Corrects Performance*: Distinguishes trends, predicts impacts on system operations, diagnoses deviations in systems' performance and corrects malfunctions

C. *Improves or Designs Systems*: Suggests modifications to existing systems and develops new or alternative systems to improve performance

Technology: Works with a variety of technologies

A. *Selects Technology*: Chooses procedures, tools or equipment, including computers and Related technologies

B. *Applies Technology to Task*: Understands overall intent and proper procedures for setup and operation of equipment

C. *Maintains and Troubleshoots Equipment*: Prevents, identifies, or solves problems with equipment, including computers and other technologies. (SCANS, 1991, p. 12)

Organizations can incorporate these competencies to determine the way(s) use value of employees is essential to organizational productivity and/or competitive advantage.

The SCANS (1991) document also provides a three-part foundation for employee performance which are basic skills, thinking skills, and personal qualities. The descriptions are as follows:

Basic Skills: Reads, writes, performs arithmetic and mathematical operations, listens and speaks

A. *Reading*: Locates, understands, and interprets written information in prose and in documents such as manuals, graphs, and schedules

B. *Writing*: Communicates thoughts, ideas, information, and messages in writing; and creates documents such as letters, directions, manuals, reports, graphs, and flow charts

C. *Arithmetic/Mathematics*: Performs basic computations and approaches practical problems by choosing appropriately from a variety of mathematical techniques

D. *Listening*: Receives, attends to, interprets, and responds to verbal messages and other cues

E. *Speaking*: Organizes ideas and communicates orally

Thinking Skills: Thinks creatively, makes decisions, solves problems, visualizes, knows how to learn, and reasons

A. *Creative Thinking*: Generates new ideas

B. *Decision Making*: Specifies goals and constraints, generates alternatives, considers risks, and evaluates and chooses best alternative

C. *Problem Solving*: Recognizes problems and devises and implements plan of action

D. *Seeing Things in the Mind's Eye*: Organizes, and processes symbols, pictures, graphs objects, and other information

E. *Knowing How to Learn*: Uses efficient learning techniques to acquire and apply new knowledge and skills

F. *Reasoning*: Discovers a rule or principle underlying the relationship between two or more objects and applies it when solving a problem

Personal Qualities: Displays responsibility, self-esteem, sociability, self-management, and integrity and honesty

A. *Responsibility*: Exerts a high level of effort and perseveres towards goal attainment

B. *Self-Esteem*: Believes in own self-worth and maintains a positive view of self

C. *Sociability*: Demonstrates understanding, friendliness, adaptability, empathy, and politeness in group settings
D. *Self-Management*: Assesses self accurately, sets personal goals, monitors progress, and exhibits self-control
E. *Integrity/Honesty*: Chooses ethical courses of action (SCANS, 1991, p. 13)

The SCANS report has not been updated since 1991 because there has not been any perceived need to make adjustments to the competencies for employees. These competencies reflect that business owners, public employers, unions, and workers and supervisors in shops, plants, and stores understand that jobs require employees with complex abilities for high skill employment. The extent to which accomplishment of these competencies within the context of the work position are valued by the organization is unknown. Finding employees with all these characteristics is also a difficult task that requires diligence and patience in a fast paced, global economy.

Solutions and Recommendations

Organizations recognize there is a difference in technical and non-technical staffs' use value to the organization. They have instituted dual career ladders for technical personnel to attain similar status, compensation, and recognitions that are accorded other high level managers; recognizing their use value to the organization (Maidique & Hayes, 1984). Organizations are doing a great job as they seek to find employees to help them achieve their goals; however, there is room for improvement beyond just the abilities or use value of the employee. They must also consider their location, maintenance, modification, and time values. Labor costs about 2/3 of overall business costs. This model can be used to exploit inefficiencies in these costs. The focus should be on people and technology results. There are profitable and sustainable ways to grow the relationship between people and technology in the workplace.

FUTURE TRENDS

It appears that organizations are reversing the trend back to employees with "all around" skills that were dominant prior to the industrial revolution (Bowden, 1947). Employees were valued because they could do more than one thing. The behavioral or scientific management strategies brought a reduction of employees having to know or learn to do more than a few manual tasks on the job (Taylor, 1911). The rapidly changing workplace is requiring workers that can do many things on the job. Organizations are beginning to ask the same person to play multiple roles in the organization (Maidique & Hayes, 1984) or be entrepreneurial in their performance; "This overlapping of responsibilities results in a second blessing: a dissolving of the classic organizational barriers that are major impediments to the innovating process" (p. 23). Organizations are asking their employees to be innovative within cultures that are stifling creativity. To multitask and be innovative, traditional practices such as being present just to be seen at work must end (Munck, 2001). Munck recognized that the culture of the organization was repressing the use value of employees at Marriott and decided to make a change by listening to employees. According to Munck

We also monitored the financial impact of the pilot program and were relieved to learn that it did not adversely affect our bottom line. Although we did have additional capital expenditures (for example, providing computers and Internet access to certain managers), that cost was more than offset by gains in productivity (for instance, sales managers were able to acquire additional customers). Furthermore, the Management Flexibility program fostered an atmosphere of open dialogue. A crucial take-home message from the

pilot was the management shouldn't dictate that people do things that don't make sense; employees who are doing their jobs day in and day out often know best how to find efficient ways to do their work. After all the best ideas don't always come from the leaders in an organization, and it's very easy for any company to slip into bad habits of doing something just because that's the way it's always been done. (pp. 130-131)

This is one example that encapsulates the essence of how use value can be effective for organizations. People are valuable to the organization and an investment in people and technology at the same time will not always diminish an organization's productivity gains if it is moderated when implemented. Consistent, open communication between employees and management will allow managers to determine how to leverage the KSAs that employees bring to the workplace in ways that is beneficial for all stakeholders.

CONCLUSION

Work need not stifle individual creativity and innovation to produce value in the organization. Organizations must be willing to recognize that their beliefs, knowledge, or practices may be irrelevant in the face of continuously changing situations in the marketplace (Bowden, 1947). "Economic value for a company is nothing more than the gap between price and cost, and it is reliably measured only by sustained profitability" (Porter, 2001, p.65). The price and cost of organizations investing in technology and people are indeed different, but they can be proportionally measured to determine the economic value they bring to the organization. However, it would be difficult to attribute these numbers in isolation of each other because of their reciprocal influence on the productivity of the other. Technology enhances employee productivity, and the employee enhances technology productivity. Understanding and valuing both people and technology in the workplace can only improve an organization's competitive advantage. Porter described how the Internet influenced industry structure and must become a part of the organization's overall strategy to provide competitive advantage.

The Internet has been the most prominent technological innovation thus far and is still being integrated into organizations, worldwide. Organizations are still trying to understand how to use its vast capabilities that appear to be never ending. The same is true for people. People have vast capabilities, but their capabilities are never extolled collectively with regards to what they bring to the organizations. Often, employees are asked to compete against each other within the workplace for position, recognition, rewards, and other limited resources when their time could be better spent focusing on how to defeat external competitors through the collective use of their vast capabilities. Division of labor was introduced during the industrial revolution to be able to mass produce product (Bowden, 1947). There is still a need for mass production, but there is more of a need for employees to communicate with each other on the job (Prusak & Cohen, 2001). Technology does not fight against itself unless designed to do so by a person. Organizations should commend the capabilities of its workforce collectively at all times and not just on special or not so special occasions.

REFERENCES

Aguinis, H., & Kraiger, K. (2009). Benefits of training and development for individuals and teams, organizations, and society. *Annual Review of Psychology*, *60*, 451–474. doi:10.1146/annurev.psych.60.110707.163505

Badawy, M. K. (1995). *Developing managerial skills in engineers and scientists: Succeeding as a technical manager* (2nd ed.). New York, NY: Van Nostrand Reinhold.

Baird, L., & Meshoulam, I. (1988). Managing two fits of strategic human resource management. *Academy of Management Review*, *13*, 116–128.

Becker, B. E., Huselid, M. A., & Beatty, R. W. (2009). *The differentiated workforce: Transforming talent into strategic impact*. Boston, MA: Harvard Business Press.

Böhm-Bawerk, E. V., Hilferding, R., & Sweezy, P. M. (1984). *Karl Marx and the close of his system*. Philadelphia, PA: Orion Editions.

Bossidy, L. (2001). The job no CEO should delegate. *Harvard Business Review*, *79*(3), 46–49.

Bowden, G. T. (1947). The adaptive capacity of workers. *Harvard Business Review*, *25*, 527–542.

Brache, A. P. (2002). *How organizations work: Taking a holistic approach to enterprise health*. New York, NY: John Wiley & Sons, Inc.

Clay, J. (2006). The deep difference between labor and use-value *Science and Society*, *70*, 375–378. doi:10.1521/siso.70.3.375

Cyert, R. M., & March, J. G. (1963). *A behavioral theory of the firm*. New York, NY: Prentice Hall.

Delery, J. E. (1998). Issues of fit in strategic human resource management: Implications for research. *Human Resource Management Review*, *8*, 289–309. doi:10.1016/S1053-4822(98)90006-7

Deming, W. E. (1982). *Out of the crisis*. Cambridge, MA: MIT Center for Advanced Engineering Study.

Drucker, P. F. (1999). Knowledge-worker productivity: The biggest challenge. *California Management Review*, *41*(2), 79–94.

Espedal, B. (2005). Management development: Using internal or external resources in developing core competence. *Human Resource Development Review*, *4*(2), 136–158. doi:10.1177/1534484305276217

Fromm, E. (1989). *Marx's concept of man*. New York, NY: The Continuum Publishing Company.

Hughes, C. (2010). "People as technology" conceptual model: Towards a new value creation paradigm for strategic human resource development. *Human Resource Development Review*, *9*(1), 48–71. doi:10.1177/1534484309353561

Huselid, M. A. (1995). The impact of human resource management practices on turnover, productivity, and corporate financial performance. *Academy of Management Journal*, *38*, 635–872. doi:10.2307/256741

Huselid, M. A., Jackson, S. E., & Schuler, R. S. (1997). Technical and strategic human resource management effectiveness as determinants of firm performance. *Academy of Management Journal*, *40*(1), 171–188. doi:10.2307/257025

Locke, J. (1691). Some considerations on the consequences of the lowering of interest. *The Works of John Locke, Vol. II.* London.

Martelli, J. (1998). Training for new technology: Midwest steel company. In Rothwell, W. (Ed.), *Linking HRD programs with organizational strategy* (pp. 85–96). Alexandria, VA: ASTD.

Marx, K. (1906). *Capital* (*Vol. 1*). Chicago, IL: Kerr.

Morgeson, F. P., & Campion, M. A. (1997). Social and cognitive sources of potential inaccuracy in job analysis. *The Journal of Applied Psychology*, *82*, 627–655. doi:10.1037/0021-9010.82.5.627

Munck, B. (2001). Changing a culture of face time. *Harvard Business Review*, *79*(10), 125–131.

Nakajima, S. (1988). *Introduction to total productive maintenance*. Portland, OR: Productivity Press.

Olmosk, K. E. (1972). Seven pure strategies of change. In Pfeiffer, J. W., & Jones, J. E. (Eds.), *The 1972 annual handbook for group facilitators*. San Diego, CA: Pfeiffer & Company.

Park, C. S. (2006). Reply. *Science and Society*, *70*, 379–380. doi:10.1521/siso.70.3.379

Pfeffer, J. (1992). *Managing with power: Politics and influence in organizations*. Boston, MA: Harvard Business School Press.

Pfeffer, J. (1994). *Competitive advantage through people: Unleashing the power of the workforce*. Boston, MA: Harvard Business School Press.

Porter, M. (2001). Strategy and the Internet. *Harvard Business Review*, *79*(3), 62–78.

Prusak, L., & Cohen, D. (2001). How to invest in social capital. *Harvard Business Review*, *79*(6), 86–93.

Ramsey, M. (1986). *The super supervisor*. Greensboro, NC: Positive Presentations, Inc.

Robbins, S., & Coulter, M. (2007). *Management* (9th ed.). Upper Saddle River, NJ: Prentice Hall.

SCANS. (1991, June). What work requires of schools. *A SCANS report for America 2000*. Washington, DC: U.S. Department of Labor, The Secretary's Commission on Achieving Necessary Skills (SCANS).

Stewart, T. A. (1999). *Intellectual capital: The new wealth of organizations*. New York, NY: Doubleday.

Sutton, R. I. (2001). The weird rules of creativity. *Harvard Business Review*, *79*(8), 94–103.

Taylor, F. W. (1911). *The principles of scientific management*. New York, NY: Harper & Row.

Venkatraman, N., & Henderson, J. C. (1998). Real strategies for virtual organizing. *Sloan Management Review*, *34*(2), 73–87.

Vroom, V. H. (1973). A new look at managerial decision making. *Organizational Dynamics*, *1*(4), 66–80. doi:10.1016/S0090-2616(73)80024-5

Wenstop, F., & Myrmel, A. (2006). Structuring organizational value statements. *Management Research News*, *29*, 673–683. doi:10.1108/01409170610715990

Whitman, M. (2010). *The power of many: Values for success in business and in life*. New York, NY: Three Rivers Press.

Wilson, H. T. (2004). Use value and substantive rationality in the work of Marx and Weber. *Journal of Classical Sociology*, *4*(1), 4–30. doi:10.1177/1468795X04040650

Wright, P. M., & McMahan, G. C. (1992). Theoretical perspectives for strategic human resource management. *Journal of Management*, *18*, 295–320. doi:10.1177/014920639201800205

Chapter 9
Maintenance Value

ABSTRACT

Employee maintenance value is expressed through training and development, and motivation. Training and education departments are crucial to maintaining and expanding employee effectiveness on the job.

Individuals bring their own expectations into every situation. If their expectations are not understood up front, it does not matter how much communication or information they receive, the intervention will not succeed. Maintenance value requires that the organization and the employee understand what formal knowledge the employee needs in order to perform his job so that in the end customers are satisfied with the product or service they receive. The purpose of this chapter is to: (1) introduces the concept of maintenance value, and (2) analyze and compare examples of technology maintenance value, including preventive maintenance systems and process, and investment in new tools with people maintenance value, including training and development

INTRODUCTION

Once employees' location and use values are understood it is time to maintain their stability within their position and within the organization. Employee maintenance value is expressed through training and development, and motivation. Training and education departments are crucial to maintaining and expanding employee effectiveness in their position. To be effective employees must be active participants (Silberman, 1998) in their own learning. Often individuals have learning styles that are inconsistent with the training and/or education methodologies being used. However, they should be aware of their learning style so that they can adapt the information in ways that is most beneficial to their learning. Employees must learn how to learn what is needed to improve in their positions (Argyris & Schön, 1978).

Individuals bring their own expectations into every situation. If their expectations are not understood initially, it does not matter how much communication or information they receive, the intervention will not succeed. Methods of development that meet participants' expectations and learning styles will result in a better implementation of their career development plan as established by the employee and the organization.

DOI: 10.4018/978-1-4666-0240-3.ch009

Maintenance value requires that the organization and the employee understand the formal knowledge needed by the employee in order to perform his work so that customers are satisfied with the product or service they receive. Sometimes, the needs of the customer can become lost in the process. When organizations become too focused on other activities other than employee knowledge, they forget that the employee's performance can directly impact customer satisfaction.

The maintenance, modification and time sections all relate to the fact that employees and companies can choose how they grow and change and whether or not employees want to stay with or leave the organization. This chapter (1) introduces the concept of maintenance value and (2) analyzes and compares examples of technology maintenance value including preventive maintenance systems and process and investment in new tools with people maintenance value including training and development and motivation.

BACKGROUND

Maintenance value of technology is revealed in preventive maintenance systems and processes and investment in tools needed to maintain technology (Nakajima, 1988). Nakajima introduced the concept of total productive maintenance which involves employees in small groups taking care of equipment. Stakeholder value creation for organizations are expressed through growth, market share, profitability, and liquidity; where employee value creation is expressed through job satisfaction, motivation, salary, and job security (Hax & Majluf, 1996; Huselid, 1995, Huselid, Jackson & Schuler, 1997). Investment in technology maintenance increases the potential for organizational growth which can lead to market share enhancement, improved profitability, and liquidity.

Some organizations have limited training and development plans for employees while others are extensively learning organizations (Argyris & Schön, 1978). Because organizations may not recognize the value of training or educating employees, these organizations may lack the motivational or job enrichment strategies that could enhance employee performance. Becker, Huselid & Beatty (2009) suggest that a differentiated workforce may be the key to transforming talent within the workplace.

Maintenance value is essential to technology and people. Organizations are spending enormous amounts of money to maintain technology and for the technical support services of the technology (Aguinis & Kraiger, 2009). Organizations should also continue to invest in employee training and development and employees' motivation to perform. Health and wellness of the employee are also aspects of their maintenance value to the organization. If employees are unable to perform, organizations miss opportunities for continued success. Hughes (2010) proposed that as companies invest in training, development, and motivation of their employees, the employee maintenance value to the organization increases through improved performance.

MAIN FOCUS OF THE CHAPTER

Maintenance is associated with technology and equipment (Liyanage & Kumar, 2003); however, people require maintenance as well (Maslow, 1987). While it is not only important for organizations to consider ways to maintain all parts of equipment, machines, and technology in the workplace, organizations should also consider ways to maintain the whole person on the job. A worker spends more time at work than any place else during their lifetime, especially the low wage, manual worker.

Technology Maintenance Value

Preventive Maintenance Systems and Processes

As machines and equipment degrade from continuous use, organizations employ preventive maintenance systems and processes to maintain capability and functioning to meet productivity goals and customer demands (Thompson, 1968). Organizations typically develop schedules for all equipment is maintenance (Sim & Endrenyi, 1988). Some terms associated with preventive maintenance are:

- **Deterioration:** A process where the condition of a device gradually (and measurably) worsens. If left unattended, the process will lead to *deterioration failure.*
- **Poisson Failure:** A failure which can occur any time and which occurs at a constant rate.
- **Repair:** An activity where a device is restored to working condition after a failure has rendered it inoperative. If not indicated otherwise, then after repair the device is as good as new.
- **Preventive Maintenance:** An activity' undertaken regularly at preselected (but not necessarily identical) intervals while the device is satisfactorily operating, to reduce or eliminate the accumulated deterioration.
- **Minimal Preventive-Maintenance:** A preventive maintenance activity of limited effort and effect. If deterioration is modeled as occurring in a limited number of discrete steps, then minimal preventive-maintenance is needed. (Sim & Endrenyi, 1988, p. 92)

Organizations develop maintenance systems and processes to primarily prevent and avoid deterioration and poisson failure of equipment. If equipment fails or system disruptions occur, when it could be prevented, organizations must reassess their preventive maintenance systems and processes. For example, if a piece of equipment is expected to be operational 24 hours a day for six days a week, the preventive maintenance system should be designed to rotate this piece of equipment out of and back into the production cycle to reduce the possibility of a poisson failure.

Sometimes organizational leaders choose to skip preventive maintenance schedules to the detriment of the technology and productivity. Having to stop production, unexpectedly, to make costly repairs takes a lot of time which equates to lost productivity and, subsequently, revenue. The maintenance value of technology is typically well understood and organizations seek ways to optimize the systems and processes within which they protect the usefulness of the technology. They do not ever want to replace equipment, machines, and/or technology because of poor maintenance.

Investment in New Tools

To ensure that technology is maintained, organizations must invest in the tools needed to support technology upkeep. There is inherent value in the tools that are purchased to maintain technology. The value of not losing productivity and having to replace the technology too soon is an enormous, value add for the organization (Liyanage & Kumar, 2003; Womack & Jones, 1996). Improvements to equipment must be continuous and effective for organizational success. It must be a part of the equipment operational strategy.

Tools to maintain technology are expensive and often uniquely designed specific to the type of technology. Knowing which tools to purchase and how to maintain the tools are as important as the technology itself. When there is a work stoppage because of technology, tools should be readily available to fix the problem. If a computer or server stops working, replacement parts should be available. When personal computers first became the norm in organizational settings, tools to

fix them were not readily available. Today, they have become much more sophisticated and robust, but there are tools that are needed to monitor and troubleshoot problems that may arise.

People Maintenance Value

People at all levels of the organization are valuable to its success and their ability to perform their jobs is directly tied to their maintenance value. Maintenance of the employee within the context of the model and this book is focused on training and development and motivation. However, there are indeed other ways that organizations are attempting to maintain employees; but, this author attributes those other ways as subsets of motivation. For example, many of the health and wellness offerings are designed to motivate the employee to continue working for the employer

Training and Development

Training and development is considered to be one of the three pillars of human resource development (HRD) (Swanson, 2001). Training and development in the workplace was not originally developed as a method to benefit the employee but as a necessary benefit for the organization to mass produce product, consistently during the industrial revolution. This author purposely separates training from education because training is to meet immediate needs of the organization while education is for long term benefit of the individual who receives it especially if they attain a degree. Organizations such as the Society for Human Resource Management (SHRM) and the American Society for Training and Development (ASTD) have certification programs through which they offer external professional development seminars. These programs and seminars are supplemental to what most organizations consider important to job performance. The necessity of these certifications is questionable. How do these certifications translate to on the job performance that benefits the organization as opposed to supplying revenue to SHRM or ASTD?

Because jobs are so complex, training must be made available to employees to help them remain effective and knowledgeable regarding updates to equipment or services. It must also be aligned to the job for appropriate transfer to occur (Montesino, 2002). Training is designed to improve immediate performance and must be transferred from the in-house training room or off site workshop to the job. Training transfer is a huge issue of debate within the training field. How and when does training transfer occur? Are the employees applying information received off-the-job when they are on-the-job? This author questions the validity of all the trainers out there who have never spent any time performing the work for which they are readily providing training. This is not a question of can they provide information to a training participant; this is a question of do they know of which they speak? Can they relate to the actual situation participants face at work? The essence of training has been distorted away from its original purpose of fundamentally providing the information needed to the worker so that he can immediately apply it to improve job performance. There have been huge debates regarding workers actively participating in their own training. Could it be that the workers do not participate in the training because they do not see the benefit to them? The training is not their own. It is what the instructor wants it to be and is taught in ways to which the participant cannot relate.

There are required, government mandated training and legal training such as OSHA safety and sexual harassment that must occur. However, these should be the exceptions from job specific training. Often there are complaints that on-the-job training does not work; however, the military has proven that it does work, and does so repeatedly and consistently. The one unique aspect that the military maintains with regards to basic training that other organizations do not is that the military does not allow anyone who has not experienced

being in the military to train the troops to do their job. Drill instructors are soldiers themselves and have experienced what the trainees will encounter. Their trainers have spent time in the trenches so they know of what they speak and train. Many trainers in corporate America and other organizations have no frame of reference for what they speak and are often perceived to be experts because of their education and/certifications. Training does not occur in isolation; yet, it has become acceptable in many organizations for trainers to have no practical training in the work for which they are designing or providing training.

There is absolutely nothing wrong with knowledge, but the ability to train for job performance requires experience. Historically, workplace trainers were experienced supervisors, but because of complexity of the jobs, professional trainers were hired to assist with employee training and development. This is fine if trainers recognize that they should allow experienced workers to do the training. Professional trainers should assist with material development and coordination of training activities along with designated employee trainers. It is difficult to teach a call center employee how to respond to customers on the phone if you have never taken a call. The same is true for teaching employees to use computers. If you have never used a computer, how can you teach someone else to use a computer? Employees can read the manuals themselves. The days of the totally uneducated worker in the workplace is ending. Thus, organizations must adjust and recognize that employees bring knowledge with them in the position, but they want to be trained in the functions of the job by experienced trainers who have previously performed the work or similar work.

Organizations must understand the difference between education and training and ensure they are using either education or training appropriately to remain competitive. There is nothing worse than losing the billions of dollars that have been invested in training when the results do not transfer back to the job through job performance. This is one reason training is perceived to be a non-value added expense and training departments are viewed as indirect labor. There is nothing to tie it directly to the bottom line revenue stream of the organization. Trainers should adopt a back to basics approach to training by which this author suggests that they take the time to learn the jobs for which they are providing training. Trainers do not have to become the worker, but should understand the functions of the job and how the job responsibilities align with organizational goals. Trainers should be able to speak the language of the workplace and gain credibility. Another alternative would be for organizations to understand the use value of all their employees and choose employees to be trainers who have the KSAs and experience to be effective. Value creation through training (Qureshi, Briggs, & Hlupic, 2006) must occur for organizations to compete in the global economy. Collins' (2001) suggestion of determining first who, then what, applies with training in the workplace. Organizations must determine who should be trainers of their employees, and then establish the type of information the employees need to receive through training activities that will be immediately transferrable to the employee's job performance.

Motivation

Theories and ideas regarding motivation are covered extensively in chapter four. Motivation in this section is referring to how employee work motivation is a component of the maintenance value of the employee to the organization. Organizations can help employees be productive through motivational techniques that are designed to enhance the viability of the employee as a person; not just to meet the needs of the organization. There is the existence of the working poor in America. The working poor are employees who come to work every day and struggle to survive financially in a capitalistic society. Often they end up giving their wages back to the employer; similar to the

phenomenon of sharecropping where the farmer borrowed from the landowner to produce the crops and had to pay him back at the end of the harvest. Workers receive their pay checks and may be tenants in apartments own by their employer or buy the goods that they help their employer produce. It is difficult to motivate a worker who is living pay check to pay check performance at peak when they can discern no appreciable solution to their daily dilemma.

The organization is not directly responsible for the plight of the worker, but they are indirectly affected if the worker does not meet productivity goals. It is difficult to convince a worker that they are valued and should be motivated to give their full effort when they witness continuous investment in technology and do not perceive that they are receiving a reasonable or comparable wage and/or treatment. Perception does matter with regards to motivation. It is a procedural justice issue. Although most leaders look at procedural justice from person to person comparisons made by employees, they should look at it from a person to technology comparison and determine if adjustments need to be made.

ISSUES, CONTROVERSIES, PROBLEMS

Baptiste (2001) argued that human capital theorists have a utopian view of education as a panacea for all society's woes.

For instance regarding the mediating effects of technology, human capital theorists assume that more educated workers are always more technologically savvy than their less educated counterparts and that their superior technological savvy renders them always more productive than their less educated peers. In short, human capital theorists do not envisage situations in which less educated workers might enjoy a productive advantage over their more educated peers. (p.190)

This author sees merit in some of what Baptiste argues, but would suggest that many of the theorists have never met a less educated worker; therefore, they can have a blatant disregard for the abilities that lower skilled workers possess. They have bought into the mechanized, scientific management philosophy that assumes that the worker has no cognitive abilities and must rely on the behavioral abilities espoused by their employer. It is incomprehensible to some that lower skilled workers have KSAs and learning capabilities that are superior to their more educated peers.

Another issue is the problem of strategic alignment of training to organizational goals. It is difficult to ask someone who has limited knowledge of organizational processes to align training to organizational goals. Many times, the training leaders just do not know the answer and should seek as much input as possible from less educated workers.

Solutions and Recommendations

There are questions that high technology managers seek answers to efficiently manage technology. They are:

1. How the technology works;
2. Its limits, as well as its potential (together with the limits and the potential of competitors' technologies);
3. What these various technologies require in terms of technical and economic resources;
4. The direction and speed of change; and
5. The available technological options, their cost, probability of failure, and potential benefits if they prove successful. (Maidique & Hayes, 1984)

Are these questions not similar to what should be asked when attempting to develop people?

1. How does the employee do his job?

2. What are the limitations as well as potential for the employee to do his job better and more efficient than our competitors' employees?
3. What resources, technical and economic, do the employee need to perform or be trained to perform his job better?
4. What changes are needed and how quickly does the change need to be understood by the employee?
5. What available options does the employee have to ensure success and how much will needs options cost?
6. How will the employee's success effect the organization?

Organizational leaders do not have to make a vast adjustment to begin to value their people in ways similar to how they value technology. Employees are receiving a disservice from those who purport to help them increase their skill levels. Some questions organizations must consider are: What is the maintenance value of employees within the organization? In what way(s) is maintenance value of employees essential to productivity and/or competitive advantage of an organization? How do organizations invest in employee maintenance? How do they determine who and then what to train? The competition between education and training in the workplace must end if organizations are to value all the dimensions that workers bring to the workplace. How do organizations distinguish training from education? This author suggests that training is a maintenance value and education is a modification (see chapter 10) value.

Strategic training alignment must be a comprehensive endeavor between the training professionals, organizational leaders, and all employees. When employees are left out, key information that will enhance the strategy is often missed and implementation of the strategy becomes complicated. Maintenance employees are tasked with executing equipment maintenance strategy and they are seldom, if ever left out of the strategic planning for maintaining the equipment. Why continue to leave employees out of their own development strategy?

FUTURE TRENDS

Organizations must begin to institute targeted training efforts in ways similar to how they target technological solutions to the specific problem. Training has been just-in-time and must continue to be so, but it should also be more anticipatory. To be anticipatory, it will require people with experience to be able to anticipate the next solution for the potential problem. Training after the fact forces the organization to be reactionary as opposed to proactive in solving problems. The training may not be sophisticated but it must be relevant, accurate, and effective to meet the specific needs of organizations. Silberman (1998) noted that training should provide need to know information. That concept should never change. To provide need to know information, the trainer must know what knowledge the trainee and/or organization needs.

Knowledge workers are in high demand and they are often self-motivated. Organizations have to determine ways to externally motivate these employees so that they will share their knowledge with their peers and with the customer to the benefit of all stakeholders. Future research should evaluate how training and development has evolved to be more valued outside the organization through certification programs than it is inside the organization from the people who are doing the job every day.

Often managers are asked what they need to improve performance and many are genuinely unsure. The better solution would be to find out exactly what they are doing and then determine what needs to be added or eliminated to get them to where they want to go. This process is a little different than a gap analysis. In this process, one does not want to just fill in the gap, but to also

clean out some of the excess that may be irrelevant to where the organization's strategy is headed.

CONCLUSION

Historically, according to Bowden (1947) executives of these companies assumed that new employees could be added to the payroll roughly in the same manner that a new machine is added to the shop. Apparently they thought that relatively little formal attention to selection and training of employees was necessary, and that the old timers in the shop would take care of whatever was needed informally. This lack of a systematice program increased the errors of placement and thereby contributed to high rates of labor turnover. The lack of carefully worked out job descriptions made expansion unnecessarily difficult. Without these it was hard to develop training programs. And without job descriptions companies were overdependent on individuals. When a long-service employee was absent, the details of job knowledge which he carried around in his mind were absent with him, and vital routines of communication were disrupted. (p.536)

The information discussed in 1947 by Bowden is still relevant today in many organizations. There is a lack of respect for the complexity of employees, and they are not considered as complex human beings who have many dimensions to offer the organization. Organizations tend to believe that the replacement of one employee by another is an equivalent exchange because they are doing the same job. They will see that this is not true, once they begin to view employees as more than the job that they perform. Ultimately the problem is with maintaining employee location, use, maintenance, modification, and time value, not just the use of the employee to do one specific job.

REFERENCES

Aguinis, H., & Kraiger, K. (2009). Benefits of training and development for individuals and teams, organizations, and society. *Annual Review of Psychology*, *60*, 451–474. doi:10.1146/annurev.psych.60.110707.163505

Argyris, C., & Schön, D. (1978). *Organizational learning*. New York, NY: Addison-Wesley.

Baptiste, I. (2001). Educating lone wolves: Pedagogical implications of human capital theory. *Adult Education Quarterly*, *51*(3), 184–201.

Becker, B. E., Huselid, M. A., & Beatty, R. W. (2009). *The differentiated workforce: Transforming talent into strategic impact*. Boston, MA: Harvard Business Press.

Bowden, G. T. (1947). The adaptive capacity of workers. *Harvard Business Review*, *25*, 527–542.

Collins, J. (2001). *Good to great*. New York, NY: HarperCollins.

Hax, A. C., & Majluf, N. S. (1996). *The strategy concept and process: A pragmatic approach* (2nd ed.). Upper Saddle River, NJ: Prentice Hall.

Huselid, M. A. (1995). The impact of human resource management practices on turnover, productivity, and corporate financial performance. *Academy of Management Journal*, *38*, 635–872. doi:10.2307/256741

Huselid, M. A., Jackson, S. E., & Schuler, R. S. (1997). Technical and strategic human resource management effectiveness as determinants of firm performance. *Academy of Management Journal*, *40*(1), 171–188. doi:10.2307/257025

Liyanage, J. P., & Kumar, U. (2003). Towards a value-based view on operations and maintenance performance management. *Journal of Quality in Maintenance Engineering*, *9*, 333–350. doi:10.1108/13552510310503213

Maidique, M. A., & Hayes, R. H. (1984). The art of high-technology management. *Sloan Management Review*, *25*(2), 17–31.

Maslow, A. (1987). *Motivation and personality* (3rd ed.). New York, NY: Harper & Row.

Montesino, M. U. (2002). Strategic alignment of training, transfer-enhancing behaviors, and training usage: A post training study. *Human Resource Development Quarterly*, *13*(1), 89–108. doi:10.1002/hrdq.1015

Nakajima, S. (1988). *Introduction to total productive maintenance*. Portland, OR: Productivity Press.

Qureshi, S., Briggs, R. O., & Hlupic, V. (2006). Value creation from intellectual capital: Convergence of knowledge management and collaboration in the intellectual bandwidth model. *Group Decision and Negotiation*, *15*, 197–220. doi:10.1007/s10726-006-9018-x

Silberman, M. (1998). *Active training* (2nd ed.). San Francisco, CA: Jossey-Bass/Pfeiffer.

Sim, S. H., & Endrenyi, J. (1988). Optimal preventive maintenance with repair. *IEEE Transactions on Reliability*, *37*(1), 92–96. doi:10.1109/24.3721

Swanson, R. A. (2001). The discipline of human resource development. In Swanson, R. A., & Holton, E. F. (Eds.), *Foundations of human resource development* (pp. 88–100). San Francisco, CA: Berrett-Koehler Publishers.

Thompson, G. L. (1968). Optimal maintenance policy and sale date of a machine. *Management Science*, *14*, 543–550. doi:10.1287/mnsc.14.9.543

Womack, J. P., & Jones, D. T. (1996). *Lean thinking*. New York, NY: Simon & Schuster.

Chapter 10
Modification Value

ABSTRACT

Modification value of technology has been studied for centuries (Babbage, 1835). Machines were expected to be maintained to the extent that they were capable so that organizations could retrieve the money that they spent to acquire the equipment. If modifications were conducted, they were done only to the extent that it was less costly than replacing the equipment. Modification of people within the context of the five values model is to look at how the person grows and changes not only through activities provided by the organization, but also activities that people use for self-development including education that may or may not align with their current jobs. The key for the organization is to understand that some employees want to grow and change and how do they adjust to these employees' need or convince the employees to adapt their new knowledge to the goals of the organization if feasible. The purpose of this chapter is to: (1) introduce the concept of modification value; and (2) compare technology modification value including upgrades to equipment, slight modifications, and investment to ensure value is derived from the piece of equipment to people modification value, which includes growth and change, job enrichment, and organization development.

INTRODUCTION

Modification value of technology has been studied for centuries (Babbage, 1835). Machines were expected to be maintained to the extent that organizations were capable of retrieving the money that they spent to acquire the equipment. If modifications were conducted, they were done only to the extent that it was less costly than replacing the equipment.

DOI: 10.4018/978-1-4666-0240-3.ch010

Continuous learning can include obtaining higher education, if a terminal degree has not been earned, attending training and professional development seminars, or engaging in individualized study. Learning from peers and co-workers is another possibility. Modification value, at times, requires patience as the employee grows and changes to adapt to the transition that the organization has to make to meet its marketplace challenges. Sometimes, forced change, which needs to occur rapidly, can be stressful for employees. The market collapse in September 2008 is a prime example. There were many market

forced mergers such as Morgan Stanley/Bank of America in which employees had no time to adjust to the change. This is not a common occurrence, but some new processes are introduced to employees the same way; when it does not need to be introduced so rapidly. Drucker (1999) stated that "making knowledge workers more productive requires changes in attitude not only on the part of the individual knowledge worker, but [also] on the part of the whole organization" (p.92). He suggests that this change should first be piloted so that the organization may comfortably adjust to the change to avoid public failures. During the pilot unforeseen problems can be resolved and productivity can be improved.

Modification of people within the context of the five values model is to look at how the person grows and changes not only through activities provided by the organization, but also activities that people use for self-development including education that may or may not align with their current jobs. They may seek additional degrees with or without tuition assistance from the organization. They may attend professional development seminars and workshops that are not sponsored by the organization. The key for the organization is to understand that some employees want to grow and change. The organization must determine how to adjust to these employees' needs or convince the employees to adapt their new knowledge to the goals of the organization, if applicable.

This chapter (1) introduces the concept of modification value and (2) compares technology modification value including upgrades to equipment, slight modifications, and investment to ensure value is derived from the piece of equipment against people modification value which includes growth and change, job enrichment, and organization development.

BACKGROUND

Modification value of technology is expressed through upgrades and minor/major modification of the technology (Rosenberg, 1972; Tushman & Anderson, 1986). Modification is expressed by employees through their growth, change, and the job enrichment actions of organizational leaders (Hughes, 2010). As employees grow and change, organizations should have HRD systems (Swanson & Holton, 2001) in place to adjust to their growth and change in ways similar to how the organization prepares for and adjusts to technological changes (Betz, 1993; Vroom, 1973). Employees come to organizations with "hardware": the employee's physical well-being, fitness, health, and wellness; and "software": their skills, expertise, stock of knowledge, and its currency; both of which require maintenance and planned modifications or upgrades (Disselkamp. 2009).

The following assumptions depict the role of human expertise and skill employees bring to organizations.

1. Organizations are human-made entities that rely on human expertise in order to establish and achieve their goals.
2. Human expertise is developed and maintained through HRD processes for the mutual long-term and short-term benefits of sponsoring organizations and individuals involved.
3. HRD professionals are advocates of individual, team, work-processes, and organizational integrity.(Swanson & Holton, 2001, p. 331)

Modification value is important because there are times when upgrades are needed for both employees and technology. When employees are not rewarded for their growth and change through job enrichment or other incentive methods, they are more likely to leave the organization and take their KSAs with them (Drucker, 1999). Enhancing

employee growth is just as important as modifying technology (equipment) to adjust to changes (Burkhardt & Brass, 1990).

Modification value can also be expressed through the personal expectations that employees and organizational leaders bring to the organization (Cyert, Dill, & March, 1958; Vroom, 1964). Organizations function best when employees, managers and leaders are in sync. They must work together to implement technological and employee changes quickly. The blend of people and technology utilization in the workplace impacts the overall success and/or failure of the organization. Integration of the concepts of the PT model (Hughes, 2010) into management practice can help managers gain a competitive advantage (Espedal, 2005; Pfeffer, 1994). Hughes proposed that as organizations adjust to growth, change, and job enrichment needs of employees, the employee modification value increases and that as organizational, employee, and leader expectations are better understood within organizations, better decisions that may lead to the success of the organization occurs.

MAIN FOCUS OF THE CHAPTER

Technology Modification Value

Technology modification value has been studied in operational and engineering literature (Liyanage & Kumar, 2003; Maidique & Hayes, 1984; Nakajima, 1988; Thompson, 1968; Womack & Jones, 1996). The value of modifying technology is essential for organizational adjustments to growth and change in the marketplace. It is less costly, at times, to modify technology than to replace it.

Upgrades and/or Slight Modification

Upgrades and/or slight modifications to equipment become necessary as new product designs and new manufacturing processes are launched. The key for organizations is to make these creative changes without losing market share or having to drastically alter normal operations. Many organizations accomplish these changes through focused research and development (R & D) efforts. They have R & D facilities in-house so they can closely monitor changes as they occur and are able to integrate innovations into their operations seamlessly.

Sometimes organizations can upgrade their technology through mergers and acquisitions or partnerships with other companies. This may help lower R & D and product development costs if the technology is already developed elsewhere. Engineers would only need to modify and adapt the processes to meet organizational goals.

Investment to Ensure Value is Derived

Organizations do not invest in equipment with the idea that no value will be derived from that investment. The organization wants to know that their investment will return value to the shareholders or other stakeholders who depend on their success. Organizations do not want to make costly modifications to a piece of equipment that will be obsolete in a few years. The technological wars that are waged between cell phone companies are one example. Motorola experienced significant changes and actually spun off its cell phone division into a new company to be able to compete with Apple's iPhone. The Razor phone was a huge success, but they did not change or modify quickly enough to compete. The ability to make quick modifications to equipment and/or technology requires having cash readily available to invest and immediate value is derived from the use of the equipment and/or technology.

People Modification Value

Dalziel and Schoonover (1988) define change as the planned or unplanned response of an organization to the pressures brought about by individuals, teams, coalitions, and special-interest groups

inside and outside the organization. Extensive research has been focused on helping employees accept change in the workplace; however, very little research has been focused on the value of employees to the organization if and when they do change. If their change becomes a benefit for the organization, it is easy to see how they may advance within the organization. The concern becomes determining if the change is superficial which means the employees are delivering a performance for their economic survival (Goffman, 1959; Horniman, 2004; Mangham & Overington, 1983) or is it a true change and the employee has transformed their beliefs and abilities? Sometimes employees change to the extent that they are incompatible with the organization and are unable to perform because their performance would be in stark contrast to their personal goals and beliefs. For example, they may have been working as an engineer, but decide to go back to school and become a medical doctor.

Horniman (2004) described leadership as a performing art. This author suggests that the employee's job performance can be a performing art if they grow and change and the job does not grow and change along with him. The work responsibilities can become incongruent to their personal goals. Their ability to accept job constraints that would have them ignore their changes is reduced. In some instances, organizations encourage employees to change (i. e., tuition reimbursement for degree attainment) but are incapable of incorporating the new skills into their corporate strategy (Benson, Feingold, & Mohrman, 2004). When the employee acquires the new degree and knowledge that comes along with it, how is he allowed to assimilate that knowledge into the workplace?

Growth and Change

For the organization, computer hardware and software can be expensive, both to acquire and to train employees to use them. When programmed incorrectly, computer systems can make costly errors. Computers can alienate customers if firms eliminate the human element of customer relations. For employees, computers will continue to reinvent jobs, so lifelong learning will be a constant reality for most employees. Because computers can do routine, repetitive tasks better than humans, many entry level jobs will either be eliminated or upgraded. For society, worker obsolescence means that a certain percentage of employable individuals will always be out of work because their jobs were eliminated or upgraded by technology (Hunter, Bernhardt, Hughes, & Skuratowicz, 2001). The social support network in this country will be challenged to provide basic necessities for workers who cannot or will not upgrade their skills. This will further stratify society into those that have the good jobs, those who have jobs, and those who have no jobs. However, worker obsolescence will create opportunities for those who are willing and able to learn the skills required in a workplace that is constantly reinventing itself.

Managers', who were conduits in the chain of command between top management and the operating floor, jobs are being eliminated. The managers who remain are responsible for more workers who will often be part-time, off-site, knowledge workers, or service personnel. Managers are not only applying new skills including negotiating, coaching, and building teams, but also employee training.

Changes in technology have reduced the stability of most employees' KSAs. New technologies driven by computers, reengineering, TQM, and flexible manufacturing systems are changing the demands of jobs and the skills needed to perform. Individuals who want the best jobs in the future must cultivate skills in computer literacy, interpersonal communication, creative problem-solving, and the self-discipline to work autonomously.

The Job Characteristic Model (JCM) (Fried & Ferris, 1987; Hackman & Oldham, 1974; Hackman & Oldham, 1975) described dimensions that must be present for workers to find their jobs important, meaningful, valuable, and worthwhile. Jobs that

include skill variety and require employees to perform a variety of tasks challenges workers to develop and use multiple skills and talents. Jobs that include task identity and require the completion of a whole, identifiable piece of work encourages workers to take ownership of the outcome of their jobs. Work that provide task significance and affects the lives or work of others can create a sense of pride in workers. Furthermore, jobs that possess autonomy enable workers to feel personally responsible for outcomes. If consistent job performance feedback is provided, then workers will know how effectively they are performing and can continuously upgrade their skills to achieve peak performance.

Such jobs also increase responsibility and accountability. As people feel pride and are rewarded they also face the consequences of failure to perform. The JCM is based on a number of assumptions that may or may not be valid. First, the model assumes that workers want to be challenged, want to perform multiple tasks, and have a variety of skills and talents. It ignores the employees who want to get paid as much as possible for doing as little as possible. Second, the model assumes that workers want their efforts to be identified, that they want to take responsibility for the final product. It ignores workers who would rather blame others for their failures than accept that they are personally responsible for anything. Third, the model assumes that workers care whether their work is useful to anyone else. It ignores those workers who only care about getting paid or getting by. Fourth, the model assumes that workers will accept honest feedback that will allow them to realistically assess their current on-the-job performance and to improve in the future. It ignores workers who cannot or will not accept constructive criticism and those who do not want to improve.

While many employees want to grow and change educationally, there are others who do not. There may still be a place for these workers because they are expected to maintain productivity levels even if they choose not to increase their educational knowledge base. They can still receive training that is required to enhance their job performance.

Job Enrichment

Job enrichment is often associated with layoffs to provide a positive spin on asking an employee to do more work for the same amount of pay; however, there may be incentives associated with the enrichment that motivates the employee to perform. Enriching the job is perceived to benefit the employer more than the employee; although some employees look upon this an opportunity to gain more experience and to prepare for a potential future promotion. Managers can combine tasks to form new, larger jobs that increase skill variety and task identity. Expanding jobs vertically and giving workers some of the responsibilities and controls, formerly reserved for managers, is beginning to minimize the gap between "controlling" and "doing" the job.

Organizations also use techniques such as job rotation (cross-training) and job enlargement to enrich the job for employees. Job enrichment is used to keep employees from voluntarily leaving the organization. Job rotation can reduce employee boredom with routine tasks and benefit the organization by allowing managers more flexibility in scheduling work, adapting to changes, and filling vacancies. There are also downsides to job rotation including increased training costs, potential for productivity to be reduced, adjustments of work groups to accommodate new employees, and demotivation of trainees who prefer to specialize as opposed to cross-train. Job enlargement is often perceived as more work with less benefit by the employees especially if it occurs after a reduction in the workforce. Employees look upon job enlargement as having to do other workers' work with no increase in pay.

Organization Development

People modification incorporates aspects of organizational development and organizational design (See chapter 2). There is a need to discuss the effect of modification value of people in relation to organizational development and design which do not occur without being influenced by employees. How do organizational development efforts the changes in people? Is there a willingness on behalf of the organization to make needed organizational design changes if warranted? Organizations must consider these questions as they recognize growth and change of employees, especially within the new global economy, and the availability of many methods for employees to develop themselves while remaining employed.

Some organizations have what they consider to be entrepreneurial cultures that accommodate the growth of employees. Employees are allowed to take leaves of absences to further their education of fulfill a personal passion. Organizational development professionals must remain open minded to the growth and changes that employees attain, while remaining employed, and determine how to integrate these people and their skills into the organizational strategy.

Robbins and Judge (2011) describe six elements of organization structure: 1) work specialization, the degree to which tasks in the organization are subdivided into separate jobs; 2) departmentalization, the basis by which jobs are grouped together; 3) chain of command, an unbroken line of authority that extends from the top of the organization to the lowest echelon and clarifies who reports to whom; 4) span of control, the number of subordinates directly reporting to a manager; 5) centralization/decentralization, where decision making is concentrated; and 6) formalization, the degree to which jobs are standardized.

All of these elements of the organization structure may be areas where people modification value can be incorporated into organization design strategies. These elements inspire questions about their usefulness to the organization and employees. Are there ways to add more specialized tasks to the employees' job? Has the employee changed to the extent that he can be assigned to another department? Is the employee reporting to the proper manager? Should this employee continue to report to a manager or should they be promoted to management level? Should the employees' new knowledge be centralized to help with decision making? Should the jobs become less standardized to accommodate innovation? These are some questions that can be used to better understand employee modification value to the organization.

ISSUES, CONTROVERSIES, PROBLEMS

The organizations do not always understand employee growth and changes nor does the organization know the modification value of its employees. Organizations cannot be expected to accommodate all changes that employees present, but HR managers and corporate leaders can assess whether or not the modification value of the employee benefits productivity or competitive advantage goals of the organization. They can also define the relationship between decision making with regards to people and technology in the workplace. For example, R & D is considered to be enduring and consistent for organizations. "It is maintained through slack periods and recessions because it is believed to be in the best, long-term interest of stockholders" (Maidique & Hayes, 1984, p. 20). In contrast people are laid off during these times and their modification value to the company is diminished if not completely lost.

Another example of adaptability with regards to technology:

Immobility is the most dangerous behavioral pattern a high technology firm can develop; technology can change rapidly, and with it the markets and customers served. Therefore, a high-

technology firm must be able to track and exploit the rapid shifts and twists in market boundaries as they are redefined by new technological, market, and competitive developments. (p.20)

Employees on the other hand are expected to be immobile. Their changes and adaptations must occur when needed by the organization. This stifling of employee growth and change can lead to reduced as opposed to enhanced productivity. This author recognizes that not all employee growth and change can be accommodated within the organizational strategy; however, sharing with the employee that to grow and change is accepted in the organization extends the credibility of organization leaders who are seeking to secure organizational commitment from the employee. Acceptance of employee stagnation is detrimental to their use value to the organization.

Solutions and Recommendations

There is no clear cut solution to people and technology modification issues. The awareness of this value is a starting point for managers and leaders to begin making recommendations on how to best integrate employee growth and change into the organization strategy. Job enrichment is one way that is working but there are limitations. Employers can also remove barriers to change within the organization.

Acknowledging and Adjusting to Change

Moran and Brightman (2000) provided detailed observations from their research and experience with organizations that have launched successful change initiatives:

(1) *Change is nonlinear; there is often no clearly defined beginning or end.* Change consists of a series of closer and closer approximations to increasingly ambitious goals which are embraced by more and more people in the organization. For this reason change can seem confusing and endless. Often, those involved in the change process feel as though there is no light at the end of the tunnel. (2) *Effective change interweaves multiple improvement efforts*. We believe organizational improvement includes: increasing the focus on the customer, improving and managing work processes, and strengthening employee involvement. Success with one type of improvement often triggers the need for other types. Stalled-out change efforts can indicate not failure but rather the need to initiate or jump-start a change effort in another area. We understand today that there is no one right answer but that multiple efforts are required to achieve the change organization's desire to make them competitive in the future. (3) *Change is top-down and bottom-up*. Change must be top-down to provide vision and create structure, and bottom-up to encourage participation and generate support. Ultimately, leading change is a shared responsibility of everyone in an organization, from top to bottom. If the whole organization is not on board with the change effort, it will fail. The whole organization must be pulling in the same direction to achieve the change initiative goals it has set. (4) *Organizational change has an important personal dimension.* The more profound the organizational change, the more important it is to create opportunities for people to reexamine and adjust their own values and beliefs. Unless people can integrate change on a personal level, they cannot sustain it organizationally. (5) *Measurement is key to successful and sustainable change*. The more an organization's goals can be quantified and progress toward these goals linked to individual performance, the more successful and long-lasting change is likely to be. (pp. 66-67)

Modification value addresses all of the five observations detailed here. However, items three, four, and five are most relevant. If organizations recognize the bottom-up approach, they will value employees who choose to self-develop and change. Organizations must allow employees to grow and change according to some of their own values

and beliefs and must provide clear and measurable goals. In order to manage change within organizations, leaders must understand "the three most powerful drivers of work behavior: purpose, identity, and mastery" (Moran & Brightman, 2000, p.66) in individuals. Leaders of change efforts must inspire individuals to align their purpose – what people desire and value; identity – a person's sense of who they are; and mastery – one's ability to manage oneself and the environment effectively with the necessary organizational change effort (Moran & Brightman, 2000).

"[T]he demand from the marketplace for speed, quality, customization, timeliness, and a variety of products and services has changed the landscape for doing business. The use of technology, the relentless speed of change, and the skills that working people need have changed the nature of work itself" (Kunneman, Key, & Sleezer, 2000, p.51) and have provided the platform for change within organizations. Organizations must provide learning that is equal to or greater than the pace of change in order to be successful and further develop both people and the organization for the future growth (Browell, 2000).

Attitude toward Change

Kiesler, Collins, and Miller (1968) when discussing theories concerning the development and change in attitudes stated that there is no single definition of attitude acceptable to all attitude researchers. Heneson, Morris, and Fitz-Gibbon (1978) indicated that "unlike the heart rate, attitude infers through words and actions. They further described attitude as… a tool that serves the human need to see order and consistency in what people say, think and do, so that given certain behaviors, predictions can be made about future behaviors" (p. 11). Several factors influence the formation of attitudes. How well individuals respond to change depends on factors such as the individuals' personalities, the groups they interact with, and how changes are presented to them. Several change researchers have asserted that some of the factors that contribute to acceptance or resistance to change include age, gender, and education (Trumbo, 1958; Trumbo, 1961; Halloran, 1967; Dohmann, 1970; Kirton & Mulligan, 1973; Rogers, 1995). Organization leaders must be acceptable to change for modification value to be respected and welcomed within today's workplaces. Leaders may require socialization interventions as they attempt to execute the values necessary to better integrate modification value into the workplace (Wiener, 1988).

Marcoulides and Heck (1993), in their model of culture and performance, found that the largest effect on organizational performance was worker attitude and task organization activities. They also showed the attitude and goals directly affected organizational performance measured in terms of capital gains vs. cost. If workers are not allowed to grow and change to maintain a positive attitude, organization performance may be reduced.

FUTURE TRENDS

The change literature focuses on changing people to meet organizational needs. The focus should shift to how organizations may need to make adjustments to accommodate employee growth and change similar to how they adjust to changing customer demands by modifying technology. Change is a constant and must be understood as such. A happy medium has to be established so that people feel as if they can grow and change without feeling stifled within organizational constraints. Organization development and design professionals must be more forward thinking especially with regards to encouraging employees to seek degrees that are not rewarded within the organizational structure.

Researchers can develop measures for how modification value is affected by the attitude of leaders and their willingness to consider people modification value in ways similar to how they value technological modification value.

CONCLUSION

People and technology both contribute to the success of the organization. Both have characteristics that at times require modifications that can add value to the organization. Employee attitudes in the workplace are strongly predicted by organizational values and directly effects the level of organizational performance (Marcoulides & Heck,).Understanding that this value is present will help managers as they make decisions that can strengthen the organization's competitive advantage in the marketplace. Not all technology or all people require modifications. Sometimes, it is simply time to let people and/or technology go if modifications will not enhance their performance.

REFERENCES

Babbage, C. (1835). *On the economy of machinery and manufacturers*. London, UK: Frank Cass & Co.

Benson, G. S., Feingold, D., & Mohrman, S. A. (2004). You paid for the skills, now keep them: Tuition reimbursement and voluntary turnover. *Academy of Management Journal*, *47*, 315–331. doi:10.2307/20159584

Betz, F. (1993). *Strategic technology management*. New York, NY: McGraw-Hill.

Browell, S. (2000). Staff development and professional education: A cooperative model. *Journal of Workplace Learning: Employee Counseling Today*, *12*, 57–65.

Burkhardt, M. E., & Brass, D. J. (1990). Changing patterns or patterns of change: The effects of a Change in technology on social network structure and power. *Administrative Science Quarterly*, *35*, 104–127. doi:10.2307/2393552

Cyert, R. M., Dill, W. R., & March, J. G. (1958). The role of expectations in business decision making. *Administrative Science Quarterly*, *3*, 307–340. doi:10.2307/2390716

Dalziel, M. M., & Schoonover, S. C. (1988). *Changing ways: A practical tool for implementing change within organizations*. New York, NY: AMACOM.

Disselkamp, L. (2009). *No boundaries: How to use time and labor management technology to win the race for profits and productivity*. Hoboken, NJ: John Wiley & Sons, Inc.

Dohmann, C. W. (1970). Teachers' perception toward innovations and change. *UMI Dissertation Services, 70*(25), 019. (University Microfilms No, 70-25, 019)

Drucker, P. F. (1999). Knowledge-worker productivity: The biggest challenge. *California Management Review*, *41*(2), 79–94.

Espedal, B. (2005). Management development: Using internal or external resources in developing core competence. *Human Resource Development Review*, *4*(2), 136–158. doi:10.1177/1534484305276217

Fried, Y., & Ferris, G. R. (1987). The validity of the job characteristics model: A review and meta-analysis. *Personnel Psychology*, *40*, 287–322. doi:10.1111/j.1744-6570.1987.tb00605.x

Goffman, E. (1959). *The presentation of self in everyday life*. New York, NY: Doubleday.

Hackman, J. R., & Oldham, G. R. (1974). The job diagnostic survey: An instrument for the diagnosis of jobs and the evaluation of job redesign projects. *JSAS Catalog of Selected Documents in Psychology*, *4*, 148.

Hackman, J. R., & Oldham, G. R. (1975). Development of the job diagnostic survey. *The Journal of Applied Psychology*, *60*, 159–170. doi:10.1037/h0076546

Halloran, J. D. (1967). *Attitude formation and change*. Leicester, UK: Leicester University Press.

Heneson, M. E., Morris, L. L., & Fitz-Gibbon, C. T. (1978). *How to measure attitudes*. Beverly Hills, CA: Sage.

Horniman, A. B. (2004). Leading: A performing learning art. In Goldsmith, M., Morgan, H. J., & Ogg, A. J. (Eds.), *Leading organizational learning: Harnessing the power of knowledge*. San Francisco, CA: Jossey-Bass.

Hughes, C. (2010). "People as technology" conceptual model: Towards a new value creation paradigm for strategic human resource development. *Human Resource Development Review*, *9*(1), 48–71. doi:10.1177/1534484309353561

Hunter, L., Bernhardt, A., Hughes, K., & Skuratowicz, E. (2001). It's not just the ATMs: Technology, firm strategies, jobs, and earnings in retail banking. *Industrial & Labor Relations Review*, *54*, 402–424. doi:10.2307/2696101

Kiesler, C. A., Collins, B. E., & Miller, N. (1969). *Attitude change*. New York, NY: John Wiley & Sons, Inc.

Kirton, M. J., & Mulligan, G. (1973). Correlates of managers' attitudes toward change. *The Journal of Applied Psychology*, *58*(1), 101–107. doi:10.1037/h0035425

Kunneman, D. E., Key, J. P., & Sleezer, C. M. (2000). Management training activities and training needs within selected business and industry organizations in Oklahoma. *Journal of Career and Technical Education*, *16*(2), 51–56.

Liyanage, J. P., & Kumar, U. (2003). Towards a value-based view on operations and maintenance performance management. *Journal of Quality in Maintenance Engineering*, *9*, 333–350. doi:10.1108/13552510310503213

Maidique, M. A., & Hayes, R. H. (1984). The art of high-technology management. *Sloan Management Review*, *25*(2), 17–31.

Mangham, I. L., & Overington, M. A. (1983). Dramatism and the theatrical metaphor: Really playing at critical distances. In Morgan, G. (Ed.), *Beyond method: Social research strategies* (pp. 219–233). Beverly Hills, CA: Sage.

Marcoulides, G. A., & Heck, R. H. (1993). Organizational culture and performance: Proposing and testing a model. *Organization Science*, *4*, 209–225. doi:10.1287/orsc.4.2.209

Moran, J. W., & Brightman, B. K. (2000). Leading organizational change. *Journal of Workplace Learning: Employee Counseling Today*, *12*, 66–74.

Nakajima, S. (1988). *Introduction to total productive maintenance*. Portland, OR: Productivity Press.

Pfeffer, J. (1994). *Competitive advantage through people: Unleashing the power of the workforce*. Boston, MA: Harvard Business School Press.

Robbins, S., & Judge, T. (2011). *Organizational behavior* (14th ed.). Upper Saddle River, NJ: Prentice Hall.

Rogers, E. M. (1995). *Diffusion of innovations* (4th ed.). New York, NY: The Free Press.

Rosenberg, N. (1972). *Technology and American economic growth*. Armonk, NY: M. E. Sharp.

Swanson, R. A., & Holton, E. F. (2001). *Foundation of human resource development*. San Francisco, CA: Berrett-Koehler Publishers.

Thompson, G. L. (1968). Optimal maintenance policy and sale date of a machine. *Management Science*, *14*, 543–550. doi:10.1287/mnsc.14.9.543

Trumbo, D. A. (1958). *An analysis of attitudes toward change among the employees of an insurance company*. Unpublished Doctoral dissertation, Michigan State University.

Trumbo, D. A. (1961). Individual and group correlates of attitudes toward work-related change. *The Journal of Applied Psychology*, *45*(5), 338–344. doi:10.1037/h0040464

Tushman, M. L., & Anderson, P. (1986). Technological discontinuities and organizational environments. *Administrative Science Quarterly*, *31*, 439–465. doi:10.2307/2392832

Vroom, V. H. (1964). *Work and motivation*. New York, NY: John Wiley & Sons, Inc.

Vroom, V. H. (1973). A new look at managerial decision making. *Organizational Dynamics*, *1*(4), 66–80. doi:10.1016/S0090-2616(73)80024-5

Wiener, Y. (1988). Forms of value systems: A focus on organizational effectiveness and cultural change and maintenance. *Academy of Management Review*, *13*, 534–545.

Womack, J. P., & Jones, D. T. (1996). *Lean thinking*. New York, NY: Simon & Schuster.

Chapter 11
Time Value

ABSTRACT

Within organizations, time is essentially equal to money; or is it? Should it be that employee output is equal to money as opposed to their time on the job? Time is an important resource that is often directed but not measured accurately relative to cost for the organization or the individual. Organizations also face issues related to the length of time employees choose to remain with the company, and/or they may employ downsizing/rightsizing strategies of their own. Time value is used to determine depreciation rates for technology and is easily reconciled from a cost perspective by employers. Time is measured in a continuum despite efforts to segregate its value in the workplace (Taylor, 1911). The purpose of this chapter is to: (1) present the concept of time value; and (2) analyze and compare technology time value including life span of equipment and depreciation of equipment expense with people time value including length of time in position and downsizing/rightsizing.

INTRODUCTION

Within organizations time essentially equals money; or does it? Should it be that employee output is equal to money as opposed to their time on the job? Time is an important resource that is often directed but not measured accurately; relative to cost for the organization or the individual. Time in many organizations is measured based upon absence from work (Nicholson & Johns, 1985) as opposed to productivity. It is easy to measure whether or not a person is at work or not.

Organizations also face issues related to the length of time employees choose to remain with the company. The organization may also employ downsizing/rightsizing strategies. From a cost perspective, time value is used to determine depreciation rates for technology and is easily reconciled within the budgets by employers. Time of employees is often measured in cost. Employee time is bought by the employer (Taylor, 1974); however, there are issues related to absence and when an employee can legitimately miss work. Nicholson and Johns (1985) stated

> On the one hand are the shared expectations that employees' time has been "purchased" and that the employer has the right to set and enforce work schedules. On the other are shared expectations that some absence from work is necessary, legitimate, and mutually beneficial for employer and employee. (p.400)

DOI: 10.4018/978-1-4666-0240-3.ch011

The workplace climate relative to time becomes a part of the culture and employees experience management and sometimes peer pressure to be at work a certain amount of time regardless of how they feel or if there is actual work to perform. They maintain the organizational customs and usage with regards to the concept of time and its role within the organizational cultural norms.

Time is measured in a continuum despite efforts to segregate its value in the workplace (Taylor, 1911). Measurement of output is used in some manual shift work operation rather than the typical eight hours that employees spend on the job and for which he subsequently receives remuneration. With government regulated breaks, the actual job hours is reduced to about 7 hours of actual work time. Thus, the complexity of assessing actual time value of work performance remains an elusive endeavor. Knowledge workers introduced a new thought concept with respect to time value. How do you value knowledge? Organizations still pay many knowledge workers in derivatives based upon hourly rates. Knowledge workers such as lawyers and accountants charge billable hours along with other fees.

Technology is expected to be operational 24 hours a day. Historically, this expectation was limited to industrial facilities, but today it is demanded of computer servers as well. For example, a kiln which reaches extreme temperatures causes major production problems if it is ever allowed to stop working. The time for it to regain temperature from the shutdown is immense. The effect of its being offline not only affects that operation but also all other operations in the production process. The same thing occurs if servers go offline and employees are unable to perform vital work that requires computer use.

This chapter (1) presents the concept of time value and (2) analyzes and compares technology time value including life span of and depreciation of equipment and/or technology expense with people time value including length of time in position and downsizing/rightsizing.

BACKGROUND

Historically, time value was equated to success or productivity. In most publications, it is not directly referred to as time but can be inferred through terms such as effort and associated with the climate of the organization. Marcoulides & Heck (1993) stated that

Besides managing the core technology of the organization, leaders also may have some impact on building a productive organizational climate through the emphasis on particular sets of organizational values, and the amount of effort expended in this domain is predictive of organizational outcomes. (p. 212)

In this instance leaders' effort or amount of time is seen as a predictor of outcome results (Heck, Larsen, & Marcoulides, 1990; Owens, 1987)

Rogers (2003) studied the relevance of time with regards to how technology or new innovation is introduced and disseminated throughout an organization. He studied: "(1) the innovation-diffusion process, (2) innovativeness and (3) an innovation's rate of adoption" (p.37). The rate of adoption of a new activity or concept can be measured and is relevant to how individuals use their time in the workplace to enhance performance. Sometimes time can be a stressor within the organization as individuals attempt to meet established deadlines (Driskell, Johnston, & Salas, 2001). As organizations implement new technology and introduce change initiatives, the positive or negative affect of time constraints on employee performance should be evaluated (Vroom, 2003).

The time value of equipment is expressed in its depreciation value and the life span of the technology or equipment. With employees, the time value is less concrete. Individuals are efficient and perform the same tasks at different rates of time. Many organizations tend to frustrate employees who produce more work in less time by demanding their presence at work regardless

if they have completed the assigned tasks or not. Traditionally, this has been an acceptable practice; however, with younger generations of employees, it is less acceptable. The younger employees become frustrated when forced to spend time in a physical location to be "seen" by their bosses to be perceived as working or being effective (Erickson, 2008).

Organizations can still plan for employee length of time in position, and develop morally sound downsizing/rightsizing strategies that are economically beneficial (Drucker, 2002; Vroom & MacCrimmon, 1968). Employees and organizations have the legal right through employment-at-will laws to choose whether an employee stays with or leaves the organization (Koy, Briggs, & Grenig, 1987; Malos, 1998). Time value is sometimes not within the control of the organization; particularly when business is bad and employee reduction is required. Despite layoffs, there are still opportunities for organizations to better consider, manage, and enhance the time value of employees to the organization (Disselkamp, 2007; Disselkamp, 2009).

Time value of technology and people is critical to the continuity of a firm. When technology does not keep up with marketplace changes, it becomes obsolete (Arthur, 1994; Hogan, 1987). Employees also become obsolete if their value is not measured, enhanced, and rewarded by the organization and the employee (Arthur, 1994; Staw, 1980). Employees cannot idly wait for organizations to recognize the value of their time - be it length of service - or hours worked on a daily/weekly basis; they must value and manage their time to the extent that they work with leaders to effectively use and embrace its value (Disselkamp, 2007; Disselkamp, 2009). Hughes (2010) proposed that as organizational leaders better understand how to enhance the time value of employees, employee length of service increases. The length of service of the employee may also allow their time value to increase through experience gained during employment. Employees, through better experience over time, are able to perform their work more effectively and efficiently.

MAIN FOCUS OF THE CHAPTER

Technology time value and people time value both must be managed by workplace leaders. It is often clear how this is achieved with regards to technology but not so much with people. "In managing the core technology of the organization, leaders help crystallize production goals, achieve more certainty in how to achieve goals, and develop strategies to organize the work force to translate goals into outcomes" (Marcoulides & Heck, p. 212). Thus, the management of the core technology (Bossert, Dwyer, Rowan, & Lee, 1982; MacKenzie; March & Simon, 1959) has been studied and accepted practices regarding the time value of technology abound. This is not the case with regards to people.

Technology Time Value

Technology time value is often directly associated with the life span of equipment that is being used to produce products for or provide services to the customer. In production facilities, if the equipment needs to be changed over (Womack & Jones, 1996), this time is built into the normal work activities. In other organizations, computer servers are backed up when the majority of workers who use the computers are offline. Technicians notify users in advanced so that they can plan around the time that the computers will be offline. Extensive consideration is given to accommodate technology use in the workplace. Some technology downtime is acceptable within organizations, specifically with regards to new product introduction that requires time to perfect.

Depreciation of Equipment Expense

Equipment is an expected depreciation expense on the corporate balance sheet of publicly traded organizations. The equipment is expected to work effectively, and when it is no longer able to produce according to capacity standards, it is replaced with a like kind exchange. Organizations can typically reduce their taxes by depreciating their equipment, so the maximum time allotted for this process to take place is used. Malfunction of the equipment may even be accepted so long as it does not offset tax savings.

People Time Value

People time value is the value of employee performance of work that adds value to the organization. Being present does not necessarily equate to adding value to the organization. Historically, a worker was expected to work long hours and hard to increase his productivity. Some organizations still expect this from employees. The assumption is that visible presence equates to productivity insinuating that some innate power will influence an employee to work just because he is present (Nicholson & Johns, 1985). What does and employee's presence provide the organization? Researchers have not fully answered that question but they have examined what an employee's absence means to an employer. Two themes that have emerged have been: 1) the relationship between job satisfaction and absence implying that and employee will not come to work if they are not satisfied with their job and 2) the association between personal characteristics and absence (Muchinsky, 1977; Nicholson & Johns, 1985; Porter & Steers, 1973; Steers & Rhodes, 1978). Both of these themes have good points but can be challenged because there are many existing variables and parameters that conflict with or contradict these premises. For example, economic constraints on an employee will allow them to remain on a job to collect their salary even though they are dissatisfied. Nicholson and Johns (1985) also summarized Fox's (1974) concept of the "trust dynamic" which suggested that the position level of the employee influences the work ethic or time on the job, thus,

... persons in high discretion roles (such as professions) operate under high trust psychological contracts that reinforce the work ethic and internalized commitment to the organization. Those in low discretion roles are parties to a lower trust psychological contract that fosters a more detached view of organizational participation. (p. 399)

Workers were expected to do the most work possible in the least amount of time (Taylor, 1911). Although workers were expected to be at work many hours, to the union's dismay, they were only to be paid for their output and not their input (Drucker, 1999). Many sewing factories and other "production time" employers still use the term "make your production" and if the workers do not produce the amount of product that time studies have dictated that they are capable of producing, they are paid for their time which often results in less remuneration.

Employees face a dilemma with regards to whether or not they have internal control of their time or if there is external control of their time within the workplace (Kohn, 1981). To a great extent, the level of the position also controls this factor. If an employee is a wage employee, their time is most likely to be externally controlled within workplace climate with documented policies. If they are salaried employees, their time is more internally controlled and they operate at their discretion to achieve established performance goals. Of course, there are exceptions where some wage employees have internal control and some salaried employees have external constraints on their time.

American workers spend more time on the job than most other developed countries, but are often

not as productive (Hall & Jones, 1999; Schor, 1991). There are varying explanation for the difference such as stress and social media. Although workers may be physically present at work, they may not be mentally or emotionally there which contributes to their lack of productivity (Kahn, 1990; May, Gilson, & Harter, 2004). When a worker is under excess stress to perform, they are less effective (Crampton, Hodge, & Price, 1995; Fraser, 2001). Social media and Internet use reveals that workers are spending time doing something else besides work when they are on the job (Vitak, Crouse, & LaRose, 2011; Weatherbee, 2010).

Length of Time in Position

Length of time in position is another measure of people time value to the organization. Sometimes it is essential to have long-term employees within organizations but this has not always been favored; else, why would we have age protection laws for employees over 40 years old. Length of time in position is also referred to as seniority with the organization. This is only sometimes true. Sometimes employees stay in the same position for the length of their careers; while others transfer through different positions. Length of time with the organization is equivalent to seniority and is often associated with unions who often stipulate that the most senior person should be the last person fired. This is not the most reasonable situation to which an organization should commit. There are times when the most senior person may not be the most adequate person for the job. There must be give and take on the part of the union, employees, and the organization to work out these situations when they arise.

Downsizing/Rightsizing

Downsizing and/or rightsizing has been suggested to benefit the organization and not the majority of employees (Birati & Tziner, 2000; Buch, 1992; Cameron, 1994; Drucker, 1999; Kozlowski, Chao, Smith, & Hedlund, 1993; Sheaffer, Carmeli, Steiner-Revivo, & Zionit, 2009). They are methods used to trim the workforce to a desirable level if the organization is not financially secure. Organizations often reduce headcount to quickly save money by not having to pay as many employees, but they also increase the hours of the workers who remain. Many of these workers cannot afford to leave their jobs so they endure the longer hours at work and are thankful for the money. However, this can result in burnout of the employees and lower customer satisfaction as employee productivity and performance is diminished despite the longer hours (Fraser, 2001).

INTERSECTION OF PEOPLE, TECHNOLOGY, AND TIME

Notwithstanding the time clock used to track employee time at work, technology intersects continuously with employee's time in the workplace. Technology affects employee time when the machine is operating and the employee must be present to monitor its functions and record any synchronization and/or deviations from operational specifications (Brynjolfsson & Mcafee, 2011; Drucker, 1999; Nicholson & Johns, 1985; Taylor, 1911). One example of how technology tracks employee time is with transport truck drivers. GPS systems track the movement of the trucks so that drivers remain in compliance with federal regulations regarding how many hours they can drive a day. It also allows the organization to track the movement of its inventory and monitor driver performance.

Technology can only have so much of an impact. Sometimes employees are able to manipulate the system by not completing their work during normal work hours to be able to work overtime hours (Gowler, 1969; Steers & Rhodes, 1978). Despite elaborate tracking systems, technology (Disselkamp, 2007/2009; Scott & Markham, 1982) is neither as sophisticated as the human

mind nor capable of completing all physical tasks in the workplace. Employers must determine if time and/or frequency = cost because ultimately the employee controls time lost from work. Most systems monitor how much employees are absent rather than how often they are absent. If a worker comes and goes from work during a work day, 30 times in a year, that amount of time may be more than if the worker misses three entire work days and is subsequently fired. The more frequent absentee is rewarded. Employees determine whether or not they want to come to work (Porter & Steers, 1973).

ISSUES, CONTROVERSIES, PROBLEMS

Organizations tend to have more patience for technology downtime than they do with employee downtime (Gale, 1980). When a piece of equipment stops functioning, it is typically sold for scraps and the organization is still able to reap benefits; however, when an employee is terminated, they often do not receive any unemployment especially if they were fired for cause. Sometimes there are causes that are intentional. Other times, situations may have occurred that was beyond the employees' control. Organizational leaders should consider all facets that the employee presents before making decisions within systems that may be flawed. There are many questions to consider when evaluating employee time value to the organization including:

1. What pressures are placed upon employees from a time perspective within the workplace?
2. How do they handle these pressures and remain productive?
3. What is the time value of employees within the organization?
4. In what way(s) is time value of employees essential to productivity and/or competitive advantage of an organization?
5. How much of a predictor is time value to achieving organizational outcomes?
6. What is the role of time in the development of organizational climate (Denison, 1996; Hellriegel & Slocum, 1974; Jones & James, 1979; Litwin & Stringer, 1968; Schneider, 1975; Schneider & Reichers, 1983; Tagiuri & Litwin, 1968) and ultimately culture?
7. Do leaders enhance or sabotage employee productivity by demanding time presence?
8. How much money do organizations lose just because they pay for time presence?
9. How much time is spent in meetings when no productive action occurs?
10. Do leaders just have meetings to use up required work time?

Work Life Balance Issues

Money is not the number one motivator for employees in the workplace (Kohn, 1993; Pfeffer, 1998; Wiley, 1997). Workers are seeking work life balance so that they can be productive both at home and in the workplace (Hall,1990; Hall & Richter, 1988). Loss time from work does equal loss pay for most workers, but employers must come to terms with what workers value. The Family Medical Leave Act (FMLA) does allow employees unpaid time away from work to deal with family medical issues (Waldfogel, 1999). However, employees have other family related experiences that they value as well such as time with their children and some just need a retreat from burnout (Fraser, 2001). Employers in essence are buying the time of employees, but white collar workers essentially are never truly off the clock.

Solutions and Recommendations

Time value has the potential to strengthen relationships and help to establish cultural norms. This is good if positive and productive relationships are built that benefit both the individual and the organization. However, sometimes "U. S. workers

often form stronger allegiances to their occupations than they do their work organizations-- an outcome that may be neither desirable nor inevitable" (Beyer & Trice, 1987, p.13). It would be a win-win for both the organization and the worker if the worker formed allegiances to both the organization and the occupation (O'Reilly III, Chatman, & Caldwell, 1991).

Many of the solutions related to time value with regards to people and technology within the workplace may require cultural adjustments (Munck, 2001). Some organizational climate researchers (Guion, 1973; James & Jones, 1974) placed "greater emphasis on organizational members' perceptions of 'observable' practices and procedures that are closer to the 'surface' of organizational life" (Denison, 1996, p.622). Time is one type of organizational climate phenomenon. Climate encompasses how an individual reacts to the organizational conditions (Litwin & Stringer, 1968; Denison, 1996). How an individual reacts to the time-related policies within the organization helps to determine how they value the role of time within the climate of the organization. Time relates to climate because "climate refers to a *situation* and its link to thoughts, feelings, and behaviors of organizational members. Thus, it is temporal, subjective, and often subject to direct manipulation by people with power and influence" (Denison, 1996, p.644). Substituting time as the situation allows one to see that it is linked to the thoughts, feelings, and behaviors of employees and there is room for change within the organization to improve the situation.

Old habits are hard to break for some employees within the organization, and time is needed to allow change to occur. It seems redundant that it takes time to solve time value issues but that is an example of the uniqueness of how time is viewed within organizations. Time is limited to the length of life (Bloom, 1974) and that is all each individual has. Making the most of time on the job and assisting others with maximizing the effectiveness of their time to benefit all stakeholders would benefit individuals and organizations.

FUTURE TRENDS

Organizations are continuing to offer flex time to employees in some service industries; however, in many manufacturing industries this is not a feasible option unless employee output becomes the measure and not their 40 hour per week presence (Christensen & Staines, 1990; Ezra & Deckman, 1996; Rainey, Jr. & Wolf, 1981). Employees' time value must be measured and valued in the context within which it is provided. Organizations must clearly communicate how they are valuing time. There are many workplaces that terminate excellent employees for tardiness and absenteeism (Disselkamp, 2009). The time is associated with productivity and profit and very little consideration is given to the employees' reasons for the time away from work. It is understood that this is the nature of the workplace; however, in some cases adjustments can and must be made to further increase productivity and longevity of workers on the job. Retention and turnover is a constant concern for organizations; perhaps, if they begin to look at the five values collectively as opposed to in isolation of each other as typically occurs in the workplace, they can reduce turnover and increase retention.

Time is perceived as self-evident by individuals within organization. It is often inferred that if a person is present, they will devote time and effort to their task within the organization. This is not true. They work within the time created for them by the organization but their perception of that allotted time is unknown. Understanding the influence of time from the employee's perspective could allow for enhancement of their performance in the workplace. More research is needed to empirically examine the relationship between individual perceptions of time within the context of motivational theories such as expectancy theory (Vroom, 1964/1995) and performance (Campbell, 1990; Gilley & Maycunich, 2000; Gordon & DiTomaso, 1992; Hanna, 1988; Kotter & Heskett, 1992; Marcoulides & Heck, 1993; Wilkins & Ouchi, 1983).

CONCLUSION

Ultimately, the nature of time (Schein, 1990) must be defined by the organization leaders, communicated to employees, and managed throughout the organization. The units of time that are most relevant to the organization's success should be the point of focus. What may have worked in the past and is being done in the present may not be relevant for the future success of the organization.

Time value of people and technology in the workplace when understood can add to the organization's competitive advantage in the marketplace. The ability to keep people who are productive and meeting organizational standards and not having to frequently discard technology should provide an advantage over competitors in the workplace. Organizations such as SAS Institute and Google are known for their low turnover of employees. They have cultures that are not time sensitive in regards to micromanagement of employees. Employees have the flexibility to perform their work within loose constraints. It is often implied that lower wage employees need tighter constraints with regards to time. This may or may not be true. Organizations will have to begin to look at the five values of the employee to determine if they can possibly make adjustments that will allow them to enhance their competitive advantage and retain their employees.

REFERENCES

Arthur, J. B. (1994). Effects of human resource systems on manufacturing performance and turnover. *Academy of Management Journal*, *37*, 670–687. doi:10.2307/256705

Beyer, J. M., & Trice, H. M. (1987). How an organization's rites reveal its culture. *Organizational Dynamics*, *8*(3), 5–24. doi:10.1016/0090-2616(87)90041-6

Birati, A., & Tziner, A. (2000). Cost-benefit analysis of organizational interventions: The case of downsizing. *Journal of Business and Psychology*, *15*, 277–286. doi:10.1023/A:1007894018069

Bloom, B. (1974). Time and learning. *The American Psychologist*, 682–688. doi:10.1037/h0037632

Bossert, S., Dwyer, D., Rowan, B., & Lee, G. (1982). The instructional management role of the principal. *Educational Administration Quarterly*, *18*(3), 34–64. doi:10.1177/0013161X82018003004

Brynjolfsson, E., & McAfee, A. (2011). *Race against the machine: How the digital revolution is accelerating innovation, driving productivity, and irreversibly transforming employment and the economy*. Lexington, MA: Digital Frontier Press.

Buch, K. (1992). How does downsizing affect employee involvement? *Journal for Quality and Participation*, *15*, 74–77.

Cameron, K. S. (1994). Strategies for successful organizational downsizing. *Human Resource Management*, *33*(2), 189–211. doi:10.1002/hrm.3930330204

Campbell, J. P. (1990). Modeling the performance prediction problem in industrial and organizational psychology. In *M. D. Dunnette & L. M. Hough (EDs.), Handbook of industrial and organizational psychology* (2nd ed., *Vol. 1*, pp. 687–732). Palo Alto, CA: Consulting Psychologists Press.

Christensen, K. E., & Staines, G. L. (1990). Flextime: A viable solution to work/family conflict? *Journal of Family Issues*, *11*, 455–476. doi:10.1177/019251390011004007

Crampton, S. M., Hodge, J. W., Mishra, J. M., & Price, S. (1995). Stress and stress management. *SAM Advanced Management Journal*, *60*(3), 10–29.

Denison, D. R. (1996). What is the difference between organizational culture and organizational climate? A native's point of view on a decade of paradigm wars. *Academy of Management Review*, *21*, 619–654.

Disselkamp, L. (2007). *Working the clock: How to win the race for productivity and profits with workforce management technology*. Richmond, VA: The Oaklea Press.

Disselkamp, L. (2009). *No boundaries: How to use time and labor management technology to win the race for profits and productivity*. Hoboken, NJ: John Wiley & Sons, Inc.

Driskell, J. E., Johnston, J. H., & Salas, E. (2001). Does stress training generalize to novel settings? *Human Factors: The Journal of the Human Factors and Ergonomics Society*, *43*, 99–110. doi:10.1518/001872001775992471

Drucker, P. F. (1999). Knowledge-worker productivity: The biggest challenge. *California Management Review*, *41*(2), 79–94.

Drucker, P. F. (2002). *Managing in the next society*. New York, NY: Saint Martin's Press.

Erickson, T. (2008). Plugged. In *The generation Y guide to thriving at work*. Boston, MA: Harvard Business School Press.

Ezra, M., & Deckman, M. (1996). Balancing work and family responsibilities: Flextime and child care in the federal government. *Public Administration Review*, *56*, 174–179. doi:10.2307/977205

Fox, A. (1974). *Beyond contract: Work, power, and trust relations*. London, England: Faber.

Fraser, J. A. (2001). *White-collar sweatshop*. New York, NY: W. W. Norton & Co.

Gale, B. T. (1980). Can more capital buy higher productivity? *Harvard Business Review*, *58*(4), 78–86.

Gilley, J. W., & Maycunich, A. (2000). *Organizational learning, performance, and change: An introduction to strategic human resource development*. New York, NY: Perseus Publishing.

Gordon, G., & DiTomaso, N. (1992). Predicting corporate performance from organizational culture. *Journal of Management Studies*, *29*, 783–798. doi:10.1111/j.1467-6486.1992.tb00689.x

Gowler, D. (1969). Determinants of the supply of labour to the firm. *Journal of Management Studies*, *6*, 73–95. doi:10.1111/j.1467-6486.1969.tb00582.x

Guion, R. (1973). A note on organizational climate. *Organizational Behavior and Human Performance*, *9*, 120–125. doi:10.1016/0030-5073(73)90041-X

Hall, D. T. (1990). Telecommuting and the management of work-home boundaries. In *Paradigms revised: The annual review of communications in society-1989* (pp. 177–208). Nashville, TN: Institute for Information Studies.

Hall, D. T., & Richter, J. (1988). Balancing work life and home life: What can organizations do to help? *The Academy of Management Executive*, *3*, 213–223. doi:10.5465/AME.1988.4277258

Hall, R. E., & Jones, C. I. (1999). Why do some countries produce so much more output per worker than others? *The Quarterly Journal of Economics*, *114*(1), 83–116. doi:10.1162/003355399555954

Hanna, D. P. (1988). *Designing organizations for high performance.* Reading, MA: Addison-Wesley. Heck, R. H., Larsen, T. J., & Marcoulides, G. A. (1990). Instructional leadership and school achievement: Validation of a causal model. *Educational Administration Quarterly*, *26*(2), 94–125.

Hellriegel, D., & Slocum, J. W. Jr. (1974). Organizational climate: Measures, research, and contingencies. *Academy of Management Journal*, *17*, 255–280. doi:10.2307/254979

Hogan, W. T. (1987). *Minimills and integrated mills: A comparison of steelmaking in the United States*. Lexington, MA: Heath.

James, L., & Jones, A. (1974). Organizational climate: A review of theory and research. *Psychological Bulletin*, *18*, 1096–1112. doi:10.1037/h0037511

Jones, A. P., & James, L. R. (1979). Psychological climate: Dimensions and relationships of individual and aggregated work environment perceptions. *Organizational Behavior and Human Performance*, *23*, 201–250. doi:10.1016/0030-5073(79)90056-4

Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*, *33*, 692–724. doi:10.2307/256287

Kohn, A. (1993). Why incentive plans cannot work. *Harvard Business Review*, *71*(5), 54–63.

Kohn, M. L. (1981). Personality, occupation, and social stratification: A frame of reference. In Treiman, D. J., & Robinson, R. V. (Eds.), *Research in social stratification and mobility* (*Vol. 1*, pp. 267–297). Greenwich, CT: JAI Press.

Kotter, J., & Heskett, J. (1992). *Corporate culture and performance*. New York, NY: Free Press.

Koy, D. J., Briggs, S., & Grenig, J. (1987). State court disparity on employment-at-will. *Personnel Psychology*, *40*, 565–577. doi:10.1111/j.1744-6570.1987.tb00615.x

Kozlowski, S. W. J., Chao, G. T., Smith, E. M., & Hedlund, J. (1993). Organizational downsizing: Strategies, interventions, and research implications. *International Review of Industrial and Organizational Psychology*, *6*, 263–332.

Litwin, G. H., & Stringer, R. A. (1968). *Motivation and organizational climate*. Boston, MA: Harvard Business School, Division of Research.

Mackenzie, K. D. (1986). *Organizational design: The organizational audit and analysis technology*. Norwood, NJ: Ablex Publishing Corporation.

Malos, S. (1998). Current legal issues in performance appraisal. In Smither, J. (Ed.), *Performance appraisal: State of the art in practice (*(pp. 49–94). San Francisco, CA: Jossey-Bass Publisher.

March, J., & Simon, H. (1959). *Organizations*. New York, NY: Wiley and Sons.

Marcoulides, G. A., & Heck, R. H. (1993). Organizational culture and performance: Proposing and testing a model. *Organization Science*, *4*, 209–225. doi:10.1287/orsc.4.2.209

May, D. R., Gilson, R. L., & Harter, L. (2004). The psychological conditions of meaningfulness, safety, and availability and the engagement of the human spirit at work. *Journal of Occupational and Organizational Psychology*, *77*, 11–37. doi:10.1348/096317904322915892

Muchinscky, P. M. (1977). Employee absenteeism: A review of the literature. *Journal of Vocational Behavior*, *10*, 316–340. doi:10.1016/0001-8791(77)90066-5

Munck, B. (2001). Changing a culture of face time. *Harvard Business Review*, *79*(10), 125–131.

Nicholson, N., & Johns, G. (1985). The absence culture and the psychological contract--Who's in control of absence? *Academy of Management Review*, *10*, 397–407.

O'Reilly, C. A. III, Chatman, J., & Caldwell, D. F. (1991). People and organizational culture: A profile comparison approach to assessing person-organization fit. *Academy of Management Journal*, *34*, 487–516. doi:10.2307/256404

Owens, R. (1987). *Organizational behavior in education*. Englewood Cliffs, NJ: Prentice-Hall.

Pfeffer, J. (1998). *The human equation: Building profits by putting people first*. Boston, MA: Harvard Business School Press.

Porter, L. W., & Steers, R. M. (1973). Organizational, work, and personal factors in employee turnover and absenteeism. *Psychological Bulletin*, *80*(2), 151–176. doi:10.1037/h0034829

Rainey, G. W. Jr, & Wolf, L. (1981). Flex-time: Short-term benefits; long-term...? *Public Administration Review*, *41*(1), 52–63. doi:10.2307/975724

Rogers, E. M. (1995). *Diffusion of innovations* (4th ed.). New York, NY: The Free Press.

Schein, E. (1990). Organizational culture. *The American Psychologist*, *45*, 109–119. doi:10.1037/0003-066X.45.2.109

Schneider, B. (1975). Organizational climate: An essay. *Personnel Psychology*, *28*, 447–479. doi:10.1111/j.1744-6570.1975.tb01386.x

Schneider, B., & Reiehers, A. E. (1983). On the etiology of climates. *Personnel Psychology*, *36*, 19–40. doi:10.1111/j.1744-6570.1983.tb00500.x

Schor, J. (1991). *The overworked American: The unexpected decline of leisure*. New York, NY: Basic Books.

Scott, D., & Markham, S. (1982). Absenteeism control methods: A survey of practices and results. *The Personnel Administrator*, *27*(6), 73–84.

Sheaffer, Z., Carmeli, A., Steiner-Revivo, M., & Zionit, S. (2009). Downsizing strategies and organizational performance: A longitudinal study. *Management Decision*, *47*, 950–974. doi:10.1108/00251740910966677

Staw, B. M. (1980). The consequences of turnover. *Journal of Occupational Behavior*, *1*, 253–273.

Steers, R. M., & Rhodes, S. R. (1978). Major influences on employee attendance: A process model. *The Journal of Applied Psychology*, *63*, 391–407. doi:10.1037/0021-9010.63.4.391

Tagiuri, R., & Litwin, G. H. (Eds.). (1968). *Organizational climate: Exploration of a concept*. Boston, MA: Harvard Business School, Division of Research.

Taylor, F. W. (1911). *The principles of scientific management*. New York, NY: Harper & Row.

Taylor, P. J. (1974). Sickness absence: Factors and misconceptions. *Journal of the Royal College of Physicians*, *8*, 315–334.

Vitak, J., Crouse, J., & LaRose, R. (2011). Personal Internet use at work: Understanding cyberslacking. *Computers in Human Behavior*, *27*, 1751–1759. doi:10.1016/j.chb.2011.03.002

Vroom, V. H. (1964). *Work and motivation*. New York, NY: John Wiley & Sons, Inc.

Vroom, V. H. (1995). *Work and motivation*. San Francisco, CA: Jossey-Bass.

Vroom, V. H. (2003). Educating managers for decision making and leadership. *Management Decision*, *41*, 968–978. doi:10.1108/00251740310509490

Vroom, V. H., & MacCrimmon, K. R. (1968). Toward a stochastic model of managerial careers. *Administrative Science Quarterly*, *13*(1), 26–46. doi:10.2307/2391260

Waldfogel, J. (1999). The impact of the family and medical leave act. *Journal of Policy Analysis and Management*, *18*, 281–302. doi:10.1002/(SICI)1520-6688(199921)18:2<281::AID-PAM5>3.0.CO;2-J

Weatherbee, T. G. (2010). Counterproductive use of technology at work: Information & communications technologies and cyberdeviancy. *Human Resource Management Review*, *20*, 35–44. doi:10.1016/j.hrmr.2009.03.012

Wiley, C. (1997). What motivates employees according to over 40 years of motivation surveys. *International Journal of Manpower*, *18*, 263–280. doi:10.1108/01437729710169373

Wilkins, A. L., & Ouchi, W. G. (1983). Efficient cultures: Exploring the relationship between culture and organizational performance. *Administrative Science Quarterly*, *28*, 468–481. doi:10.2307/2392253

Womack, J. P., & Jones, D. T. (1996). *Lean thinking*. New York, NY: Simon & Schuster.

KEY TERMS AND DEFINITIONS

People Time Value: The value of employee performance of work that adds value to the organization.

Chapter 12
People, Technology, and Strategic Human Resource Development (SHRD)

ABSTRACT

Technology and people are present in all organizations. The struggle of comparing people to technology and respectfully integrating people and technology in the workplace has been a debate since the industrial revolution occurred in America (Swanson, 1982; Swanson & Torraco, 1994). Effectively managing and developing people and technology is essential to enhancing competitive advantage for organizations. Strategic Human Resource Development (SHRD) is a relatively new and evolving field. This chapter explores the extent to which SHRD has the potential to tackle the challenges of integrating and enhancing the relationship between people and technology in the workplace.

INTRODUCTION

The challenge of organizations is to remain sustainable, relevant, and profitable. Organizations that remain in business have something that customers want or they tend to go out of business. The key to organizations' continued success is the preservation and enhancement of their competitive advantage that allows them to keep customers who consistently patronize their business and to attract new customers to the business. "Man and machine are as essential to organizational prosperity as air and water is to living" (Hughes & Gosney, 2012, p.759); yet, there are few research articles published on the topic in the HRD literature (Githens, Dirani, Gitonga, and Teng, 2008).

When technology is discussed within most HRD publications, it is in the context of the use of computer technology to administer training, facilitate communication, and/or to track training results (Githens et al., 2008; Werner & DeSimone, 2012). Githens, et al.(2008) noted that the technology areas addressed in the five primary HRD publications (Advances in Developing Human Resources (ADHR), Human Resource Development International (HRDI), Human Resource Development Quarterly (HRDQ), Human Resource Development Review (HRDR), and Proceedings of Academy of Human Resource Development Conference (Proceedings)) between the years

DOI: 10.4018/978-1-4666-0240-3.ch012

2000-2006 were "educational technology (86), … virtual teams (18), and workers, knowledge management, and other, had less than ten articles each"(p. 203).

The core areas within the field of HRD are training and development, career development, and organization development (OD) (Mankin, 2001; Swanson & Holton, 2001).

All of these areas are vital to employee development within organizations. Employees want to be trained and developed so that they can build successful careers and work within viable organizations. The current global recession with its high number of unemployed workers has shined a light on the need for HRD. (Hughes & Gosney, 2012, p. 759)

Aguinis and Kraiger (2009) suggested that there is "[a]n important challenge for the practice of training… to integrate the training function with employee selection, performance, management, rewards, and other human resource practices (Aguinis, 2009; Aguinis & Pierce, 2008; Cascio & Aguinis, 2005)" (p. 467).

The core areas of HRD have been effective for developing people, but the evolving field of Strategic HRD (SHRD) provides an opportunity for growth of the field to better integrate people and technology development in the workplace.

SHRD is defined as "the process of facilitating organizational learning, performance, and change through organized interventions and initiatives and management actions for the purpose of enhancing an organization's performance capacity, capability, competitive readiness, and renewal" (Gilley & Maycunich, 2000, p. 6) and is designed to integrate HRD initiatives with business strategy (Gilley & Maycunich, 2000; Kandula, 2001; Werner & DeSimone, 2012) through OD. HRD researchers have described OD as involving the principles, processes, and performance within organizations (McLagan, 1989; McLean & McLean, 2001; Egan, 2001; Egan, 2002; Cummings & Worley, 2005; McLean, 2006). McLean (2006) broadly describes OD as:

> *… any process or activity, based on the behavioral sciences, that, either initially or over a long term, has the potential to develop in an organization setting enhanced knowledge, expertise, productivity, satisfaction, income, interpersonal relationships, and other desired outcomes, whether for interpersonal or group/team gain or for the benefit of an organization, community, region, or, ultimately, the whole of humanity. (p. 9)*

The individual and the organization must be developed simultaneously for SHRD to be successful.

Gilley and Maycunich, (2000) described the following elements as representative of the essence of SHRD:

1. Employees participate in interventions and initiatives the expand their knowledge and skills, which improves their performance;
2. Organizations remove barriers to performance;
3. Organizations provide motivational factors that enhance performance;
4. Organizations create work environments, systems, and processes that increase employee productivity; and
5. Managers provide feedback and reinforcement useful in encouraging continuous employee growth and development. (p. 5)

Individuals and organizational development is essential to the success of SHRD in the workplace. It can be inferred that item 4 above refers to the technology used within the organizations, but it is not clearly stated. There is also no clear evidence that organizational development is integrating the development of people and technology. Thus, this chapter will explore the extent that SHRD has the potential to tackle the challenges of integrating and enhancing the relationship between people and technology in the workplace. We will examine the following questions: 1) Could HRD professionals' lack of the ability through OD to

integrate people and technology in the workplace help to explain why many HRD professionals do not have a seat at the proverbial table in corporate America (Beyer & Trice, 1987)? 2) "Are HRD professionals and researchers denying that there is a relationship between people and technology in organizations? 3) Are HRD professionals and researchers limited by their beliefs concerning the comparison of people to technology" (Hughes & Gosney, 2012, p.759)?

BACKGROUND

Zakaria (2010) noted that "technology and globalization are shattering the middle class" in America (p. 31). American workers are being displaced by the productivity gains of technology and the competition for high skilled, low wage workers in a globalized economy (Friedman & Mandelbaum, 2011). Unless these issues are acknowledged and addressed within the field of HRD, middle class workers will remain at a developmental disadvantage within the global economy (Hughes & Gosney, 2012). HRD professionals must continue to design developmental initiatives that allow workers to integrate their skills with the productivity capabilities of technology (Weintraub & Martineau, 2002). Through continued development and providing of just-in-time (JIT) training, organizations have the possibility of continued success.

Just-in-time workplace training occurs on the job, in the context of an authentic task, and as part of the normal daily activity of the worker. The lessons learned during such training can be directly incorporated by the worker into an evolving understanding of the task, and hence recalled and used effectively when needed. (Collins, J. A., Greer, J. E., Kumar, V. S., McCalla, G. I., Meagher, P. & Tkatch, R., 1997, p. 327)

HRD professionals know that JIT Training or Learning was not invented by "workplace educators and performance specialists within the human resource development field, but rather it is conceptualized as an evolutionary response to the demands of a knowledge-driven and speedoriented marketplace" (Bradenburg & Ellinger, 2003, p. 311). They also know that

"Just-in-Time" learning systems deliver training to workers when and where they need it. Rather than sitting through hours of traditional classroom training, users can tap into Web-based tutorials, interactive CD-ROMs, and other tools to zero in on just the information they need to solve problems, perform specific tasks, or quickly update their skills. (Sambataro, 2000, p. 50)

However, the lack of continued research on the effectiveness and benefits of JIT training or learning is limiting the capacity of workplace learners. Although Bradenburg and Ellinger (2003) espoused the relationship of the JIT learning to the core values of HRD, there is no evidence that HRD researchers have continued this area of inquiry within the HRD literature. They stated the relationship and shared common ground statements that

JIT learning relates to the core values of HRD as exemplified by the [three]common ground statements .... [1] Leveraging available technology, without losing the human touch and social component of learning. The availability and utility of technology has been viewed in this article as belonging to the infrastructure for enabling JIT learning. However, as Pfau and Kay (2002) state, "Perhaps surprisingly, technology hasonly increased the importance of the human contribution. Far from diminishing the role of people at work, technology has become a great enabler of human creativity" (p. xxxi). With this recognition of the importance of integrating technology and human beings, JIT learning needs to be linked to supportive organizational policies and cultures with HRD professionals intimately involved with the development and deployment of such systems

so that innovative and purposeful knowledge creation, learning, and performance is facilitated and nurtured and not simply engineered by highly integrated technology infrastructures. In particular, organizational culture becomes critical in promoting the sharing of knowledge and forging effective working relationships among learners (Bollinger & Smith, 2001). [2] Intellectual capital as the life blood of the organization. A major driving force behind the emergence of JIT learning is the increasing importance that knowledge creation, dissemination, and learning have in today's knowledge economy. JIT learning is predicated on an anticipatory framework to identify knowledge requirements so that intellectual capital can be effectively deployed across the organization. Therefore, it is conceivable that HRD professionals will need to become more proactive in influencing the time-to-market knowledge cycle by continually anticipating knowledge requirements as opposed to responding to them. The notion is for HRD professionals to become anticipatory, not reactionary, in the time-to-market knowledge cycle and aligned with identifying emerging ideas, trends, methods, and technologies. Weintraub and Martineau (2002) have acknowledged that workplace educators' roles will change to knowledge structuring and learning facilitation and support. [3] Effective management of knowledge and learning. JIT learning is viewed as a means to get the right knowledge to the right people in the right way at the right time. However, to facilitate this process, HRD professionals will need to challenge some of the current models and tools at their disposal (e.g., see Forman's [2003] call for new models and systems). The anticipatory focus of JIT learning requires some fundamental rethinking of the ways in which we have historically designed, developed, and delivered learning and performance solutions. Carlisle (2002) has acknowledged that HRD professionals and knowledge management professionals have often underutilized their respective capabilities despite having the same goal. Whereas knowledge management professionals may emphasize the provision of valuable information, but without the focus on learning, HRD professionals may focus on learning but lack the original sources of intellectual capital. Carlisle suggests that HRD professionals can enhance the effectiveness of knowledge management by leveraging their expertise with learning sequencing, adult learning, learning styles, and matching of methods to learning outcomes. (Bradenburg & Ellinger, 2003, pp. 316-317)

According to Google Scholar, there have been 23 citations of Bradenburg and Ellinger's (2003) work and no clear follow-up studies within the HRD literature with regards to their suggestions that HRD professionals enhance their role of integrating HRD with JIT learning. This book will add to the literature with regards to "Leveraging available technology, without losing the human touch and social component of learning" (p. 316). It will also provide an opportunity for HRD professionals to go beyond their understanding of computer technology for knowledge management and learning purposes to a greater understanding of just how employees use the equipment/technology on their job to enhance productivity that affects the bottom line financial results of the organization. The employees must learn, but that learning must equate to financial results for the organization. HRD sometimes misses this point and a lot of the knowledge that is transferred may not be applicable or align with the business goals of the organization. Thus, employees are less likely to want to receive training regardless of whether or not it is JIT.

MAIN FOCUS OF THE CHAPTER

People, Technology, and SHRD

The majority of the research regarding technology and HRD involves computer technology and its

relationship to educating employees in the workplace. Learning Management Systems (LMS's) that manage employee training and development are important tools; however, HRD professionals and researchers must go beyond managing the learning systems to aiding employees as they seek to operate technological equipment within the workplace. The technological equipment and systems are displacing most of the middle class workers (Zakaria, 2010) because the workers are not equipped or educated to operate high technology and cannot be trained quickly enough to meet the global needs of organizations (Hughes & Gosney, 2010). Instead companies are using US government worker visa programs to hire foreign workers who possess the KSAs to meet immediate workplace needs. Githens, Dirani, Gitonga, and Teng (2008) showed that only 10% of 1675 articles in five HRD publications were related to technology; implying a lack of interest in technology by HRD researchers and professionals. This is discouraging because Swanson and Holton (2001) noted the following assumptions regarding the role of human expertise and the skill they bring to organizations:

1. Organizations are human-made entities that rely on human expertise in order to establish and achieve their goals.
2. Human expertise is developed and maintained through HRD processes for the mutual long-term and short-term benefits of sponsoring organizations and individuals involved.
3. HRD professionals are advocates of individual, team, work-processes, and organizational integrity.(p.331)

HRD professionals will not be able to advocate the success of work-processes if they do not understand technology's role in workplace success. Hughes' (2010) People as Technology Conceptual Model which describes a way to integrate people and technology functionality within organizations and can be an essential factor within the organization's value creation strategy. The PT conceptual model describes the potential value of technology and people development and operationalization of this model has the capacity to become a promising management practice (Espedal, 2005) that will provide a solution when organizations struggle to implement their best practices without the best people in the right jobs at the right time with the best technology (Brache, 2002; Espedal, 2005; Martelli, 1998; Pfeffer, 1994; Stewart, 1999). People and technology must blend to the extent that the process is a win-win for employees and organization (London & Diamante, 2002). The "people as technology" (PT) (Hughes, 2010) concept is useful within all business strategies because it enhances the foundation of the strategy, the people, and the process (Snell & Dean, 1992).

HRD technology related research "focused on educational technology in higher education settings, while non-profit organizations and government/military settings were underrepresented. Overall, non-training topics were [also] underrepresented" (Githens, et al., 2008, p. 1). The opportunity for research in technology related research within HRD is needed and re-training of the American workforce in high-tech skills is an area where HRD researchers and professionals' skills are currently most needed.

HRD is being influenced by the technological advances that are being made in the global economy (Zakaria, 2010). Robots and other simulation systems have been introduced into workplaces and are displacing the need for employees (Brynjolfsson & McAfee, 2011; Cowen, 2011; Ford, 2009; Levy & Murnane, 2005). This is not a new phenomenon, but is much more recognizable during this economic downturn known as the Great Recession. HRD professionals, researchers, and organizations must adjust to these changes and develop people and technology together.

SHRD if employed by HRD professionals will allow a more proactive approach by HRD professionals as they try to not only maintain the

productivity levels of workers, but also to enhance productivity in alignment with business strategies (Werner & DeSimone, 2012). To be successful, HRD professionals will be required to understand the business. Understanding the business means learning the operational processes and being actively involved in understanding process flow so that the knowledge they supply through training and development sufficiently meets the needs of the organization and the employees. Billions are spent on training and development in the US each year, yet there is a perception that employees are not properly trained. How can this be? Employees are receiving training that does not meet their job specific needs; training that is not linked to employee productivity such as sexual harassment and leadership. While these types are training are definitely needed in the workplace, they do not necessarily directly impact employee productivity. Most training goes to leaders to help them better manage employees, but if the employee does not receive direct skill enhancement, all the leadership in the world will not help him perform his task any better.

The employee must receive training beyond the introductory level. Most employees receive introductory level training that allows them to meet the basic level of proficiency to do their job, but many do not advance beyond that level to the level of being able to troubleshoot equipment or make higher level decisions without management intervention. Having to stop the job to wait for assistance reduces productivity. Not having the higher level, critical thinking and problem solving ability is one of the most, if not the most, challenging problem for employees. This is one reason that machines were designed to displace workers. Machines could be programmed to identify defects in products and modified to fix them. Employees are humans and they miss defects and their modification takes time and training. Time and training are two things that organizations do not want to incur high costs for. They want to maximize efficiency within a constrained amount of time and they want employees to receive the best training at the lowest cost. The level of training the employee needs may exceed what some organizations are willing to pay, so the organization would rather terminate a perceived ineffective employee and replace the employee with one who has been better trained somewhere else or with a machine.

ISSUES, CONTROVERSIES, PROBLEMS

Historically, technology has helped to revolutionize and expand productivity in the workplace, but it has not occurred without human input (Pfau & Kay, 2002). Humans have been instrumental in developing technology to displace employees and after witnessing the recent Great Recession are beginning to rethink past technological philosophy and offer ways to reassess current economic models of supply and demand (Brynjolfsson & McAfee, 2011; Cowen, 2011; Ford, 2009; Levy & Murnane, 2005). The current need to focus on re-employment of employees after historical unemployment provides HRD researchers an opportunity to develop studies on the integration of people and technology development. Three controversies of concern within HRD are:

1. HRD professionals lack of the ability through OD to integrate people and technology in the workplace (Beyer & Trice, 1987). OD activities typically manage the status quo; thus, HRD professionals must challenge their current activities and seek areas for influential change.
2. HRD professionals and researchers tend not to want to discuss the relationship between people and technology in organizations. The idea of replacing people with technology has been a source of contention (Baptiste, 2001). However, if HRD professionals want to expand their role within the workplace, they must openly acknowledge that employees are

being replaced by technology and explore ways to enhance human performance with technology (Pfau & Kay, 2002).
3. HRD professionals and researchers must constrain their beliefs concerning the comparison of people to technology and conduct empirical research to support and/or challenge their beliefs (Buchholz, 1977; Githens et al.; Hughes & Gosney, 2012, p.759). Without the research evidence to support their beliefs, HRD will continue to espouse unsubstantiated opinions regarding the ability of people and technology to both enhance productivity in organizations.

These controversies are not insurmountable. Openly acknowledging the issues, controversies and problems is the first step towards obtaining a solution.

Solutions and Recommendations

The mutability of organizations allows for changes in thoughts, methods, and behaviors pertaining to the management and development of both people and technology. Davis and North (1970) attempted to develop an institutional theory model that roots the motivation for innovation in financial concepts. The authors identify three exogenous change agents that potentially put at risk institutional innovation. They are:

1. Potential income from arrangemental innovation might increase because some exogenous change could lead to the emergence of an externality where none existed before, to a restructuring of risks, to a shift in transaction costs, or to the application of a new technology subject to increasing returns.
2. The costs of organizing and/or operating a new institution might change because of the invention of a new arrangemental technology, of institutional change in the non-economic sector, or because the price of the factors used in the new or in competing existing institutions may change.
3. Some legal or political change might alter the economic environment and make it possible for some group to effect a redistribution or take advantage of an existing external profit opportunity. (Davis & North, 1970, p. 139)

Items two and three indicate the need for HRD. Item 2 relates most closely to the PT model and may be addressed using the Five Values concept. With regards to item 3, as cost and organizational leverage factors change or come at risk due to innovation (or potential innovation) HRD becomes a risk-mitigating factor (Hughes & Gosney, 2011). HRD as a function manages human capital risk (Bhattacharya & Wright, 2005) and thus allows organizations to maximize profit (which, per Davis and North, is the goal of any organization). Organization leaders may be task HRD professionals with managing change initiative and subsequently assisting in ensuring the acceptance of change initiatives within the organization. SHRD may also assist the organization as a whole in learning new technology or ways of behaving that the overall organization has identified as critical for innovative change (Hughes & Gosney, 2011).

SHRD may also aid in mitigating political and/or legal external risks and pressures by assisting the organization in complying with legal or political mandates through training and development activities.

Scott (1987) describes institutionalization as

the social process by which individuals come to accept a shared definition of reality – a conception whose validity is seen as independent of the actor's own views or actions but is taken for granted as defining the 'way things are' and/or the 'way things are to be done.' (p. 496)

Perhaps this definition of institutionalization best illustrates the link between HRD and Insti-

tutional Theory. HRD, through the application of Institutional Theory, could become the operational entity through which the "shared definition of reality" is transmitted or diffused throughout the organization (Hughes & Gosney, 2011; Rogers, 1995). Kuchinke (2000) argued that HRD is spending too much time debating what HRD "should be" and not enough time figuring out "what it is." He proposed that institutional theory become a theoretical framework from which HRD scholars begin to conduct empirical research to assist organizations as they seek transformational change.

FUTURE TRENDS

The future of HRD is continuously evolving. Organizations are continuously changing processes and procedures, developing employees, and trying to remain competitive in a global economy. HRD professionals and researchers must also be willing to continuously change and evolve to help organizations achieve their goals. Hughes and Gosney (2011) suggested the following key strategies that are applicable here:

1. HRD professionals and researchers must find a way to bridge the gap between research and practice (Argyris, 1985; Beer, 2001; Berger, Kehrhahn, & Summerville, 2004). Burack, 1999; Hamlin, 2002; Hughes, Wang, Zheng & McLean, 2010; Mohrman & Mohrman, 2001; Muchinsky, 2004; Rynes, Bartunek, & Daft, 2001; Short, 2006; Short, Sherlock, & Sugrue, 2004; Van de Ven & Johnson, 2006; Yorks, 2005). They must come to terms with the fact that while their focus is on the gap, organizations are struggling to reach their goals without effective and efficient strategies from the HRD field.
2. HRD professionals and researchers must understand the relationship between people and technology and not focus on one or the other in isolation. They must develop methods of valuing both people and technology within the workplace (Hughes, 2010).
3. Technological innovations in the workplace are on an explosive upward trend. HRD researchers and professionals must understand these innovations to ensure that as people are developed their roles are not diminished or further eliminated but enhanced by technology.
4. HRD professionals and researchers must work to meet the business needs of workers in all organizations and provide technological based solutions along with their people based solutions. The same way that engineers cannot accomplish their design goals without people implementing their designs, HRD professionals and researchers cannot plan people strategies without understanding technological implications (Betz, 1993).
5. Ultimately, HRD must consider public policy as a potential future area of research. Understanding the broader labor relations and economic implications of their decisions within the public policy arena can only strengthen HRD practice. (p. 765)

Additional key strategies are:

6. HRD professionals and researchers must end the debate (Kuchinke, 2000; Murphy & Garavan, 2009) and begin to, as noted by McLean, Lynham, Azevedo, Lawrence, & Nafukho, 2008) learn from every field that touches human behavior. In this case, a focus on the history of technological innovation and its impact on human development is essential for HRD professionals and researchers to be effective leaders within organizations.
7. A meta-analysis of the HRD literature could be conducted to determine the extent to which JIT or Learning has been studied by HRD researchers.
8. HRD professionals and researchers must employee SHRD methods to enhance their

effectiveness in the workplace. Integrating people performance (Swanson, 1999; Torraco, 2000) within the business strategy is critical to individual and organizational success.

9. Understanding the business is not enough, applying that understanding using the concepts of the Five Values will only enhance HRD professionals' ability to integrate technology and people development within the workplace.

CONCLUSION

HRD professionals and researchers appear to deny the extent of the relationship between people and technology in the workplace. There is very little research in HRD publications that supports their effort to understand the relationship between people and technology within organizations. HRD professionals and researchers are limited by their beliefs concerning the comparison of people to technology because their ability to expand their research and practice is limited by their beliefs. Thus, their focus is often not on research areas that add to the knowledge base in these topic areas. A mind shift needs to occur before progress can be made in this area of inquiry: people, technology, and SHRD.

HRD professionals and researchers must value the relationship between people and technology so that organizations can maximize the efforts of both people and technology and not one over the other (Carrig & Wright, 2006). Without thought changes HRD professionals will never win a seat at the executive 'table' in organizations even though HRD is central to training and development, career development, and OD in the workplace

The future remains optimistic for HRD researchers and professionals (Vince, 2003) because there are numerous ways that SHRD can be developed to meet organizations' needs to be transformed for global competitiveness. Without competent, well-trained employees, organizations will not be able to compete to win (Welch, 2005). Welch (2005), states "To manage people well, companies should [e]levate HR to a position of power and primacy in the organization, and make sure HR people have the special qualities to help managers build leaders and careers" (p. 98).

Knowing the business implies knowing, the people, the technology, and the organizational strategies for success in a competitive marketplace. HRD with its emphasis upon training and development, career development, and OD has the capacity to know the business and integrate the functionality of the business strategic through SHRD and the application of the Five Values concept.

REFERENCES

Aguinis, H. (2009). *Performance management* (2nd ed.). Upper Saddle River, NJ: Pearson Prentice Hall.

Aguinis, H., & Kraiger, K. (2009). Benefits of training and development for individuals and teams, organizations, and society. *Annual Review of Psychology*, *60*, 451–474. doi:10.1146/annurev.psych.60.110707.163505

Aguinis, H., & Pierce, C. A. (2008). Enhancing the relevance of organizational behavior by embracing performance management research. *Journal of Organizational Behavior*, *29*, 139–145. doi:10.1002/job.493

Argyris, C. (1985). Making knowledge more relevant to practice: Maps for action. In Lawler, E. E. (Eds.), *Doing research that is useful for theory and practice* (pp. 29–125). San Francisco, CA: Jossey-Bass.

Baptiste, I. (2001). Educating lone wolves: Pedagogical implications of human capital theory. *Adult Education Quarterly*, *51*(3), 184–201.

Beer, M. (2001). Why management research findings are unimplementable: An action science perspective. *Reflections: The SoL Journal*, *2*(3), 58–65. doi:10.1162/152417301570383

Berger, N. O., Kehrhahn, M. T., & Summerville, M. (2004). Research to practice: Throwing a rope across the divide. *Human Resource Development International*, *7*(3), 403–409. doi:10.1080/1367886042000246003

Betz, F. (1993). *Strategic technology management*. New York, NY: McGraw-Hill.

Beyer, J. M., & Trice, H. M. (1987). How an organization's rites reveal its culture. *Organizational Dynamics*, *8*(3), 5–24. doi:10.1016/0090-2616(87)90041-6

Brache, A. P. (2002). *How organizations work: Taking a holistic approach to enterprise health*. New York, NY: John Wiley & Sons.

Brandenburg, D. C., & Ellinger, A. D. (2003). The future: Just-in-time learning expectations and potential implications for human resource development. *Advances in Developing Human Resources*, *5*(3), 308–320. doi:10.1177/1523422303254629

Brynjolfsson, E., & McAfee, A. (2011). *Race against the machine: How the digital revolution is accelerating innovation, driving productivity, and irreversibly transforming employment and the economy*. Lexington, MA: Digital Frontier Press.

Buchholz, R. A. (1977). The belief structure of managers relative to work concepts measured by a factor analytic model. *Personnel Psychology*, *30*, 567–587. doi:10.1111/j.1744-6570.1977.tb02328.x

Burack, E. H. (1999). Bridging research to corporate application. In Larwood, L., & Gattiker, U. E. (Eds.), *Impact analysis: How reach can enter application and make a difference* (pp. 17–46). Mahwah, NJ: Erlbaum.

Carlisle, L. W. (2002). Knowledge management and training: The value of collaboration. *Performance Improvement*, *41*(4), 37–43. doi:10.1002/pfi.4140410407

Carrig, K., & Wright, P. M. (2006). *Building profit through building people: Making your workforce the strongest link in the value-profit chain*. Alexandria, VA: Society for Human Resource Management.

Cascio, W. F., & Aguinis, H. (2005). *Applied psychology in human resource management* (6th ed.). Upper Saddle River, NJ: Pearson Prentice Hall.

Collins, J. A., Greer, J. E., Kumar, V. S., McCalla, G. I., Meagher, P., & Tkatch, R. (1997). Inspectable user models for just-in-time workplace training. In A. Jameson, C. Paris, & C. Tasso (Eds.), *User Modeling: Proceedings of the Sixth International Conference UM97* (pp. 327-337). Vienna, Austria: Springer Wien.

Cowen, T. (2011). *The great stagnation: How America ate all the low-hanging fruit of modern history, got sick, and will(eventually) feel better*. New York, NY: Peguin Group Publishing.

Cummings, T. G., & Worley, C. G. (2005). *Organizational development and change* (8th ed.). Mason, OH: South-Western/Thomson.

Davis, L., & North, D. (1970). Institutional change and American economic growth: A first step towards a theory of institutional innovation. *The Journal of Economic History*, *30*(1), 131–149.

Egan, T. M. (2001). *Organization development: An examination of definitions and dependent variables*. St. Paul, MN: Human Resource Development Research Center, University of Minnesota.

Egan, T. M. (2002). Organization development: An examination of definitions and dependent variables. *Organization Development Journal*, *20*(2), 59–70.

Espedal, B. (2005). Management development: Using internal or external resources in developing core competence. *Human Resource Development Review*, *4*(2), 136–158. doi:10.1177/1534484305276217

Ford, M. (2009). *The lights in the tunnel: Automation, accelerating technology and the economy of the future*. United States: Acculant Publishing.

Forman, D. C. (2003). Reinventing the training business. *Performance Improvement*, *42*(1), 40–44. doi:10.1002/pfi.4930420109

Friedman, T. L., & Mandelbaum, M. (2011). *That used to be us: How America fell behind in the world it invented and how we can come back*. New York, NY: Farrar, Strauss, and Giroux.

Gilley, J. W., & Maycunich, A. (2000). *Organizational learning, performance, and change: An introduction to strategic human resource development*. New York, NY: Perseus Publishing.

Githens, R. P., Dirani, K., Gitonga, J. W., & Teng, Y. T. (2008). Technology-related research in HRD publications: An analysis of content and metaperspectives from 2000 to 2006. *Human Resource Development Quarterly*, *19*(3), 191–215. doi:10.1002/hrdq.1236

Hamlin, R. G. (2002). In support of evidence-based management and research-informed HRD through HRD professional partnerships: An empirical and comparative study. *Human Resource Development International*, *5*, 467–491. doi:10.1080/13678860210122643

Hughes, C. (2010). People as technology conceptual model: Towards a new value creation paradigm for strategic human resource development. *Human Resource Development Review*, *9*(1), 48–71. doi:10.1177/1534484309353561

Hughes, C., & Gosney, M. W. (2012). People, technology and human resource development (HRD) philosophy. In Wang, V. C. X. (Ed.), *Encyclopedia of e-leadership, counseling and training* (pp. 759–771). Hershey, PA: IGI Global. doi:10.4018/978-1-61350-068-2.ch055

Hughes, C., Wang, J., Zheng, W., & McLean, L. (2010). Implementation concerns scholar- practitioners: A pilot study of the link between research and practice. *International Journal of Asian Business and Information Management*, *1*(2), 32–46. doi:10.4018/jabim.2010040104

Kandula, S. R. (2001). *Strategic human resource development.* New Delhi, India: Prentice-Hall of India Private Limited.

Kuchinke, K. P. (2000). Debates over the nature of HRD: An institutional theory perspective. *Human Resource Development International*, *3*(3), 279–283. doi:10.1080/13678860050128474

Levy, F., & Murnane, R. J. (2005). *The new division of labor: How computers are creating the next job market*. Princeton, NJ: Princeton University Press.

London, M., & Diamante, T. (2002). Technology-focused expansive professionals: Developing continuous learning in the high-technology sector. *Human Resource Development Review*, *1*(4), 500–524. doi:10.1177/1534484302238438

Mankin, D. A. (2001). A model for human resource development. *Human Resource Development International*, *4*(1), 65–85. doi:10.1080/13678860121714

Martelli, J. (1998). Training for new technology: Midwest steel company. In Rothwell, W. (Ed.), *Linking HRD programs with organizational strategy* (pp. 85–96). Alexandria, VA: ASTD.

McLagan, P. (1989). *Models for HRD practice*. Alexandria, VA: American Society for Training and Development.

McLean, G. N. (2006). *Organization development*. San Francisco, CA: Berrett-Koehler.

McLean, G. N., Lynham, S. A., Azevedo, R. E., Lawrence, J. E. S., & Nafukho, F. M. (2008). A response to Wang and Swanson's article on National HRD and theory development. *Human Resource Development Review*, *7*(2), 241–258. doi:10.1177/1534484308316486

McLean, G. N., & McLean, L. D. (2001). If we can't define HRD in one country, how can we define it in as international context? *Human Resource Development International*, *4*(3), 313–326. doi:10.1080/13678860110059339

Mohrman, S., Gibson, C., & Mohrman, A. (2001). Doing research that is useful to practice: A model and empirical exploration. *Academy of Management Journal*, *44*, 357–375. doi:10.2307/3069461

Muchinsky, P. M. (2004). When the psychometrics of test development meets organizational realities: A conceptual framework for organizational change, examples and recommendations. *Personnel Psychology*, *57*(1), 179–205. doi:10.1111/j.1744-6570.2004.tb02488.x

Murphy, A., & Garavan, T. (2009). The adoption and diffusion of an NHRD standard: A conceptual framework. *Human Resource Development Review*, *8*(1), 3–21. doi:10.1177/1534484308330019

Pfau, B. N., & Kay, I. T. (2002). *The human capital edge: 21 people management practices your company must implement (or avoid) to maximize shareholder value*. New York, NY: McGraw-Hill.

Pfeffer, J. (1994). *Competitive advantage through people: Unleashing the power of the workforce*. Boston, MA: Harvard Business School Press.

Rynes, S. L., Bartunek, J. M., & Daft, R. L. (2001). Across the great divide: Knowledge creation and transfer between practitioners and academics. *Academy of Management Journal*, *44*, 340–355. doi:10.2307/3069460

Sambataro, M. (2000, April). Just-in-time learning. *Computerworld*. Retrieved from http://www.computerworld.com/news/2002/story/0,ll280.443l2,00.html.

Scott, W. R. (1987). The adolescence of institutional theory. *Administrative Science Quarterly*, *32*, 493–511. doi:10.2307/2392880

Short, D. (2006). Closing the gap between research and practice in HRD. *Human Resource Development Quarterly*, *17*(3), 343–350. doi:10.1002/hrdq.1178

Short, D. C., Sherlock, J. J., & Sugrue, B. (2004). Time to recognize those who link research and practice. *Human Resource Development Quarterly*, *15*(3), 259–262. doi:10.1002/hrdq.1102

Snell, S. A., & Dean, J. W. (1992). Integrated manufacturing and human resource management: A human capital perspective. *Academy of Management Journal*, *35*(3), 467–504. doi:10.2307/256484

Stewart, T. A. (1999). *Intellectual capital: The new wealth of organizations*. New York, NY: Doubleday. Swanson, R. A. (1982). Industrial training. In W. H. Mitzel (Ed.), *5th encyclopedia of educational research* (pp. 864-870). New York, NY: Macmillan.

Swanson, R. A. (1999). The foundations of performance improvement and implications for practice. In Torraco, R. (Ed.), *Performance improvement theory and practice: Advances in developing human resources* (pp. 1–25). Thousand Oaks, CA: Sage. doi:10.1177/152342239900100102

Swanson, R. A., & Holton, E. F. (2001). *Foundation of human resource development*. San Francisco, CA: Berrett-Koehler Publishers.

Swanson, R. A., & Torraco, R. J. (1994). Technical training's challenges and goals. *Technical & Skills Training*, *5*(7), 18–22.

Torraco, R. J. (2000). The relationship of learning and performance improvement at different system levels. *Performance Improvement Quarterly*, *13*(1), 60–83. doi:10.1111/j.1937-8327.2000.tb00157.x

Van de Ven, A. H., & Johnson, P. E. (2006). Knowledge for theory and practice. *Academy of Management Review*, *31*(4), 802–821. doi:10.5465/AMR.2006.22527385

Vince, R. (2003). The future practice of HRD. *Human Resource Development International*, *6*(4), 559–563. doi:10.1080/1367886031000163065 6

Weintraub, R. S., & Martineau, J. W. (2002, June). The just-in-time imperative. *Training and Development Journal*, 51–57.

Welch, J. (2005). *Winning*. New York, NY: Collins.

Werner, J. M., & DeSimone, R. L. (2012). *Human resource development* (6th ed.). Mason, OH: South-Western.

Yorks, L. (2005). Nothing so practical as a good theory. *Human Resource Development Review*, *4*(2), 111–113. doi:10.1177/1534484305276176

Zakaria, F. (2010, November). Restoring the American dream. *Time*, *176*(18), 30–35.

KEY TERMS AND DEFINITIONS

Globalization: To become international or start operating at the international level, or cause something, especially a business or company, to become international.

Mutable: Tending or likely to change.

Strategic Human Resource Development: The process of integrating HRD practice with an organizations' business strategy.

Chapter 13
Using the Five Values to Expand Performance and Workforce Inter-Personnel Diversity

ABSTRACT

Individuals possess unique characteristics that contribute to their location, use, maintenance, modification, and time value. The exponential capability that exists within these values and the diversity that each individual possesses brings extensive opportunities for organizations. However, organizations must be able to recognize and leverage each person's contribution for added success. The objectives of this chapter are to explore how the five values can be used to expand performance and workforce inter-personnel diversity.

INTRODUCTION

Historically, all individuals in the workplace have not been considered to be as valuable as others. That may still be the case today, but regardless of the depth of their value, the value that they possess is worth something to the organization and the organization has the potential to benefit from the value. Organizational leaders are encouraged not to "choose diverse employees over others, but that they acknowledge and understand all employees and use that knowledge to enhance and improve organizational performance" (Hughes & Stephens, forthcoming).

The heart to thrive through the nourishment it receives (Lawler, 2003) and if organizations believe that people are the heart of the organization's existence, employees must be nourished as well (Hughes & Stephens, forthcoming). Determining the most suitable strategy to nourish or develop employees that is appropriate and beneficial for both the organization and the individuals who work within the organization has been a constant and consistent source of concern as evidenced by

DOI: 10.4018/978-1-4666-0240-3.ch013

the presence of human resource management and human resource development departments within most organizations.

Many methods of development have been tried and there is still vast room for improvement. The advancement of technology, the explosion of the information-powered workplaces, and the speed of change has forced individuals and organizations to seek ways to change and adapt quickly. No one individual worker is the same and this acknowledgement of the differences necessitates finding a "fit" between organizational and individual goals ((Becker, Huselid, & Beatty, 2009; Baird & Meshoulam, 1988; Delery, 1998; Wright & McMahan, 1992; Vroom, 1973). If one adheres to Boudreaux's (2001) suggestion that career development focuses "on the alignment of individual subjective career aspects and the more objective career aspects of the organizations in order to achieve the best fit between individual and organizational needs as well as personal characteristics and career roles" (p. 806) one would find ways to understand the personal characteristics of workers. The five values should align with the personal characteristics of the employees.

The location value should align with the personal characteristics that the employer assesses prior to hiring the individual. The use value should have been expressed in the cover letter, resume, and interview responses provided by the individual. The maintenance value should be expressed in the potential of the employee to meet the needs of the organization as expressed by the job analysis and subsequent job description and the alignment with the employee KSAs. The organization must see potential for employee growth during the hiring process. The modification value is acknowledged through the drive and ambition that the employee expressed with regards to their goals and aspiration for wanting the offered job and experience working for the organization. The time value should be seen through the quality of work produced, presence at work, and the amount of work done when presented with work to do. The individual benefits through understanding what it takes to convey the five values through their performance and personal characteristics and the organization also profits by rewarding and showing the dedicated employees that they appreciate their work efforts. These employees include many diverse individuals who have not been previously considered mainstream (Avery, 2011).

The objectives of this chapter are to explore how the five values can be used to expand performance and workforce inter-personnel diversity. Organizations must resolve constraints related to workplace diversity to remain competitive. They must: 1) determine how the diversity of employee's career development opportunities can enhance organizational success; 2) explore ways the five values relate to employee characteristics and explain the inter-personnel diversity amongst employees who are perceived to be the same; and 3) determine ways that organization leaders can leverage their understanding of the five values to meet workforce diversity goals without discriminating against employees.

BACKGROUND

Workplace diversity is influenced by the power and structure inside organizations, which may be derived from the central position of individuals (Burkhardt & Brass, 1990; Brass & Burkhardt, 1993). This central position translates to the value of an employee's location in the organization. The impact of employees' actual and perceived power within organizations is based upon their strategic placement or location within the organization (Brass & Burkhardt, 1993; Pfeffer, 1994). The valuation of workplace diversity instigates an organization "understanding the impact of diversity on performance and formulating a strategy to manage diversity that is connected to the career development plan (Pitts, 2006). Incorporating policies that encourage diversity and career development make it desirable for all people,

especially women and minorities, to remain in the organization (Pitts, 2006) and become fully optimized in the workplace environment.

Avery (2011) suggests that "prioritizing diversity throughout organizational human-resource management practices" (p.251) is a key to unlocking diversity's potential inside the organization. He also notes that

Through their human-resource management policies and procedures, organizations have a considerable impact on the diversity climates they facilitate and the employees they attract and retain. If they wish to encourage employee diversity activism, it is imperative that they take steps to ensure that the climates, supervisors, and coworkers employees routinely encounter convey that diversity is valued and supported. (p.252)

These suggestions apply to career development leaders within organizations. Career development requires that the organization provide a supportive climate, supervisors, and coworkers for diverse employees to feel comfortable interacting with mentors (Bingham, Gewin, Hu, Thomas, & Yanchus, 2005; Thomas, 2008). Organizations and employees must adapt to changes to survive in the global economy. One method for adapting is through career development. As individuals compete, they are competing against low wage, high skilled workers throughout the world (Friedman & Mandelbaum, 2011). Skill enhancement must become a constant, if workers and organizations are to remain nimble at adjusting to changes.

MAIN FOCUS OF THE CHAPTER

Diversifying Employee's Career Development Opportunities

As organizations continue to expand their capabilities, they invest their resources in ways that grow their businesses. Investments have been made in people and career development strategies have been developed; yet, the Global Recession of 2007 clearly shed light on the limitations of the career development plans and strategies of organizations and the people they employed. Widespread, uncontrollable layoffs around the world revealed that many organizations and employees had no career strategy or career plan for successful transitioning or adaptation to the rapid changes (Friedman & Mandelbaum, 2011).

The career development opportunities are as diverse as the number of employees that exist. There are instances where employees perform the same or highly similar tasks on the job; however, each employee usually has his own goals and personal characteristics that motivate him to do the work that he does. In essence, just because a person does the job they are paid to do does not mean that is the career that they want. A clear example of this is when one looks at actors who work many odd jobs to pay the bills until they can secure an acting career that they can sustain.

Employees also express this on their resumes when they state that they are seeking opportunities for advancement. They may start with the job that is offered but want to parlay that into a successful career with their chosen organization. Organizations must expand beyond the typical career development models and understand how the diversity of employees can influence their strategy for progression throughout their careers (Banks, 2006). Employees may not plan or be able to plan their own careers effectively, but they do know what they do not want. Often, this is exposed when the employee leaves a job that others perceived to be their chosen career. Employees move from job to job seeking a career because they have no plan (Banks, 2006; Hayes, 2000; Karsten & Igou, 2005). Employees who are entering, re-entering, and transitioning within the workplace must remain cognizant of the shifting

nature of career planning and adapt accordingly (Hayes, 2000; Karsten & Igou, 2005).

The organizational culture must also be accepting of diversity and career development (Avery, 2011; Deal & Kennedy, 1984). The unique traits of the individual, group dynamics, and the distinctive application of policies and procedures are found within organization systems and fluctuate based upon the idiosyncratic nature of the organization (Hughes & Stephens, Forthcoming). Although individuals entering the workplace must recognize and understand these elements and prepare to develop their careers despite the constraints, organizations must also do their part to educate their leaders to recognize and value the diversity of their workforce.

The Five Values and Diversity amongst and between Employees

Sometimes the diversity amongst employees is not recognizable. Because employees are asked to perform the same tasks in positions that are classified the same and may meet the stated expectations, they are perceived to be the same. Yet, there is diversity amongst employee characteristics that can be cleared expressed through application of the five values. The application of the values will also allow the diversity between employees to be acknowledged without limiting diversity to the visible, known differences that is sometimes expressed through discrimination and/or stereotyping.

Location Value

The location value (hughes, 2010) that an organization may gain from employees can be established through their placement within the organization (banks, 2006; banks & nafukho, 2008, holland, 1973; kaye, 1997, schein, 1975, super, 2002; vardi, 1980; vroom & maccrimmon, 1968). Employee provide both internal and external location value to the organization and "organizations develop rules or policies that impose some control over personnel movements, such as retirement at 65, promotion from within, giving new college graduates a variety of training assignments before assigning them to positions of responsibility and so on" (vroom & maccrimmon, 1968, p.28). Organizational control over personnel movements expressed in 1968 is still present today within global workplaces and the internal and external value of the employee significantly effects employee performance and value to the organization.

By defining and understanding the individual's location value (Hughes, 2010) within the organization, the access to the diversity of talent occurs at all levels of the enterprise regardless of position, job title, or physical placement. The recognition of the strengths and weaknesses of employee location value to the organization enables organizational leaders the potential to fully optimize all employees in the workplace (Hughes & Stephens, forthcoming). The focus of location value does not only rely on an individual's capability but also on the total organization's capability to recognize and maximize an employee's contribution. Concentrating on the organization's capability allows better diversification of talent across multiple levels of the organization. This is a contemporary, pragmatic approach to diversity management that encourages the elimination of the cultural and environmental barriers that prevent the promotion of diversity in the overall career development scheme. It may be in the organization's best interest to establish transparent career paths for its employees so that they can have some control over and better management of employee location value (Hughes, 2010) throughout the organization.

Use Value

Organizations must provide operating procedures for employees that include adequate, clear, and consistent feedback regarding an individual's

actions and how those actions translate into performance (Kerno & Kuznia, 2007). The ability of organizations to provide detailed performance criteria and feedback to employees helps to enhance employee use value (Hughes, 2010) by ensuring that all employees are on the job contributing and delivering value. The value of diverse employees within organizations is essential to productivity, competitive advantage, and long-term performance strategy.

Many employees have not had to think about doing any task other than the one assigned and their work day is usually mundane and repetitive. Because an employee appears content to show up for work each day and do as instructed by their supervisor does not mean that they are exhausting their use value or the qualifications that make up their use value to the organization. Usually it is when the worker decides to change jobs or circumstances force them to change jobs that the employer and even the employee begins to realize his true use value. The use value of the employee contributes directly to the transformative power of workplace diversity. The various KSAs of all employees in the workplace much be synchronized so that organizations benefit from all contributions.

Maintenance Value

Employee maintenance value is expressed through training and development, and motivation. Employees come to organizations with different KSAs that must be nurtured and nourished to that the employee can maintain optimum job performance. Employees also are motivated differently. Some employees strive from intrinsic motivation while others prosper as a result of external motivation. Leaders must recognize the diversity amongst the personal characteristics of employees performing the same job. All employees do not need the same type of on-the-job training at the same time. Just-In-Time (JIT) training provides an opportunity for employers to meet the varied needs of individual employees and track their success in measurable way. There is no longer a requirement for classroom training that every employee must sit through just because they perform the same task. To increase or maintain the motivation levels of employees, employers must begin to recognize and reward differences.

Modification Value

Modification of people within the context of the five values model is to look at how the person grows and changes not only through activities provided by the organization, but also activities that people use for self-development including education that may or may not align with their current jobs. Organization leaders should value the growth and changes that are made by employees regardless of whether or not the employee remains with their organization after he has experience growth that takes him beyond his current job description or other jobs within the organization. If leaders limit the growth potential of their employees, it may send an unintended message that one should not do anything to enhance self. If the employee leaves, the organization would have benefited from performance improvement while the employee was employed that they may not have had to pay for. The employee may also have served as a motivator for other employees who were striving to prepare for that employee's job if he was either promoted or left the position. Viable organizations should always have employees who are growing and changing and adding to the diversity of the organizations strengths.

Time Value

Time value of an employee to an organization is often expressed through their length of service or their time to execute assigned job tasks. If the employee is not there or cannot perform the job

task in a specific amount of time, they represent no measurable value to the organization. The speed of some employees to perform tasks is much better than others; yet, many organizations expect employees to perform the same amount of work in the same amount of hours with no difference in pay. There is essentially no motivation for the faster worker to perform more work. This is a clear area where diversity can be leveraged by leaders to make significant contributions to the motivational level of employees.

The five values when recognized and understood allows for workforce diversity to enhance organizational performance. It allows leaders the ability to clearly articulate measurable differences between employees without hindering or discriminating against another employee's the ability to perform. There are instances where employees feel slighted due to physical differences such as height, weight, and other characteristics; however, if the employee is allowed to see all of their own strengths within the five values and how they align with organizational goals, these differences may not be seen as barriers to success.

LEADERS' USE OF THE FIVE VALUES TO MEET WORKFORCE DIVERSITY GOALS

Leaders' use of the five values can play a productive role in the organization's ability to meet its workforce diversity goals. The five values will help leaders gain a better understanding of all employees and technology within their workplace. This understanding should allow the leader to better integrate diversity based upon objective as opposed to subjective criteria of assessment. The superficial value of the employee should no longer be relevant. Questions a leader could consider would be: Is the employee located on a job that best suits his use value to the organization? Does the training and development provided to the employee align with the maintenance value of the employee? As the modification value of the employee increases through the employee's own self-development, is the organization able to leverage the strengths of the employee to organizational goals? As the time value of the employee increases, does the organization provide opportunities where they show the employee that his time is needed, valued, and treasured? Can the organization leaders clearly articulate how the five values align with the organization's performance evaluation criteria?

ISSUES, CONTROVERSIES, PROBLEMS

Organizations seek ways to show their employees that they are all being treated fairly with in the workplace; yet, there continues to be instances of disparities. The disparities are witnessed through the Equal Employment Opportunities Commission (EEOC) and Department of Labor (DOL) settlements, the numerous lawsuits, and workplace disputes. Employees indeed differ in their perception of whether or not they are treated fairly within the workplace despite attempts by organizations to prove that their systems and policies regarding procedural justice are followed (Folger & Greenberg, 1985). This same disparity is perceived when employees observe organizations continuously investing in new equipment/technology and less investment in employees.

As the workforce becomes more diverse with the inclusion of older people, more women, and the increased number of minorities along with disabled individuals, it is critical for organizations to understand that just providing their leaders with training in legal aspects of discrimination

is not enough. They must be able to discern and document clear differences between employees. Not from a negative perspective as is usually the case when illegal discrimination is a concern. Discrimination becomes a concern when there is not clear delineation between what is expected (Vroom, 1964/1995) of an employee and what their performance evaluation indicates (Campbell, 1990).

Solutions and Recommendations

Understanding the five values: Location = Cohesiveness in assigned environment; Use = Qualifications; Maintenance = Continuous Training; and Modification = Growth and Change will provide organization leaders with a specific system to reduce the perception of unfairness (Hughes, 2010). It will highlight for the employees that they are indeed different, not just based upon known, visible differences, but in role and contribution to the organization.

Improving Evaluator Accuracy during Performance Evaluation

Accurate employee performance evaluations are of importance to organizations and ratees or employees being rated. Campbell's (1990) theory of job performance suggests three determinants for any component of job performance: declarative knowledge, procedural knowledge and skills and motivation. The first two determinants relate to employee ability and the third is motivation. Typically, job performance with regards to performance evaluation is considered from the perspective of the ratee as opposed to the leader conduction the evaluation or evaluator. However, when reviewing the accuracy of performance evaluation, one must consider the job performance of the evaluator providing the ratings. Conducting performance evaluations is often one aspect of an evaluator's individual job performance. Ratings are considered to be criterion-referenced evaluations as opposed to norm referenced evaluations; where an individual is expected to be evaluated without reference to other individuals (Visvesvaran, 2001). When considering the accuracy of performance evaluation, one would want the ratee to be provided maximal and truthful performance evaluation results. Viswesvaran noted, "maximal performance is what an individual can do if highly motivated whereas typical performance is what an individual is likely to do in a typical day" (p.111). However, evaluators are said to not do a very good job of providing accurate performance evaluations (Cleveland & Murphy, 1992; Murphy, 2008; Welch, 2005).

Although accurate performance evaluations may be of importance to organizations and ratees, we do not know the extent of the importance to evaluators. There are many factors defined in the literature that may influence evaluators to provide accurate evaluations (Arvey & Murphy, 1998), but there are no empirical studies that explicitly define and support those factors. Banks and Murphy (1985) suggested that evaluators do not fail to give accurate evaluations because they are not capable of accuracy, but they are unwilling to evaluate accurately. Murphy and Cleveland (1991) also stated that "Raters do not fail to give accurate ratings because they are incapable of accuracy but rather because they are unwilling to rate accurately" (p. 209). The question of evaluator unwillingness to provide accurate performance appraisals centers upon their personal motivations (Harris, 1994). Some evaluators may feel that if they give their employees low ratings it may imply that they are not effective leaders of the employees (Harris, 1994: Murphy & Cleveland, 1991). Their own work performance may also not be measured based upon the quality of evaluation that they provide to their employees (Murphy & Cleveland, 1991).

Many organizations conduct summative or yearly evaluations which seek to determine the overall performance on a yearly basis; however, formative evaluations aim at improving performance on a daily, weekly, or monthly basis may be more appropriate (Welch, 2005). Conducting yearly evaluations provide little opportunity for employees to improve their performance throughout the year without a system of continuous feedback (Banks, 2006).

Relationship between Evaluator Ability and Motivation

There have been research studies designed to determine what factors affect the accuracy of performance evaluations (Bernardin & Buckley, 1981; Bernardin, Buckley, Tyler & Wiese, 2000; Bernardin & Villanova, 1986; Mero & Motowidlo, 1995); however, the extent to which those factors improve evaluator accuracy is unknown. Two of the factors identified to influence evaluator accuracy were ability and motivation (Bernardin et al., 2000). Both of these factors impact the evaluator's accuracy when conducting performance evaluation. "Performance appraisals are inaccurate because raters lack the motivation, lack the ability, or lack both, for doing accurate appraisals" (Personal communication, November 2005).

For motivation to exist there must be both positive outcomes and some kind of connection between behavior and the outcomes (Banks, 2002). Viswesvaran states that "although a person's job performance depends on some combination of ability, motivation and situational constraints, it can be measured only in terms of some outcomes" (2001, p.114). Upon achievement of the desired outcome of evaluator ability and motivation to conduct accurate performance evaluations, organizations and evaluators may have a powerful tool, accurate performance evaluations with which to enhance organizational, ratee, and evaluator goals.

Rater Ability

Four factors that may influence evaluator ability are communication of policy, understanding of policy, frame of reference training, and time.

Communication of Policy

Organizations use many methods to communicate policy to evaluators. They must, however, be careful to ensure that evaluators do not receive unintended messages. For example, Cleveland and Murphy (1991) found that "organizations rarely reward good raters or punish bad ones" (p. 159). The message that may be inferred by this type of action by the organization by the evaluator is that the organization does not care about accurate performance evaluations. The evaluator's ability to provide accurate performance appraisals has been linked to organizational policy. Cleveland and Murphy state that organizations "create conditions that motivate raters to provide accurate ratings when they can establish and implement a clear policy linking the quality of the rating data to rewards" (1992, p.172). The policy must be clearly communicated to the evaluator.

Understanding of Policy

It is not enough for organizations to just communicate policy to evaluators if they want accurate appraisals. They must also address three issues as described by Cleveland and Murphy (1992) valued rewards must be tied to rating behavior; negatively valued outcomes of accuracy must be reduced; and evaluators must see clear links between their rating behavior and valued outcomes. When raters understand how policy can have an impact upon them, their motivation to provide the desired outcomes may increase. Organizations must also ensure that procedures that are likely to produce accurate ratings are articulated to and understood by the raters (Tziner, Murphy, & Cleveland, 2001; Murphy and Cleveland, 1992).

Organizations must also be careful to understand the capability of the evaluators and not ask them to try to execute performance appraisals using policies and procedures that are conflicting or unclear (Murphy and Cleveland, 1992).

Frame of Reference (FOR) Training

Training has been suggested to be one method of improving evaluators' ability to provide accurate performance appraisals. Specifically, Bernardin and Buckley (1981) suggested that the establishment of a common frame of reference for observing and rating would enhance rating accuracy. FOR training teaches the rater to place emphasis on the performance of the rate (Day & Sulsky, 1995). By emphasizing the focus of the rater, improved accuracy has been seen in research studies such Woehr and Huffcutt's (1994) meta-analysis which demonstrated that FOR training led to the "largest overall increase in rating accuracy of the four training methods evaluated … They concluded that FOR training is effective when raters are trained on a specific theory of performance and the result is an increase in rating accuracy when FOR is applied to a performance evaluation task" (Bernardin, Buckley, Tyler and Wiese, 2000, p. 228). Bernardin et.al (2000) also believed that the "major transferring element of FOR training was experience with clearly defined and precise performance criteria and the use of these criteria as a context for the observation and subsequent rating of performance" (p. 268).

Time

Time is considered an important factor with regards to evaluators' ability to provide accurate performance appraisals. Research has shown that conscientiousness affects job performance and "[p]erformance appraisal often occupies only a minimum of the busy supervisor's time" (Cleveland and Murphy, 1992, p.159). Viswesvaran (2001) also notes that "conscientious individuals are likely to spend more time on the task and less time daydreaming. This investment of time will result in greater acquisition of job knowledge, which in turn will result in greater productivity and which in turn will result in positive ratings" (p. 122). Similarly, evaluators who are conscientious may provide accurate performance appraisals for ratees. Lack of time was regarded by supervisors as a major reason for inaccuracy within performance appraisals (Bernardin and Villanova, 1986; Murphy, 2008; Tziner, Murphy & Cleveland, 2001).

Rater Motivation

The theory of motivation deals with attitudes concerning needs, values, and satisfaction (Porter & Lawler, 1968).Two of the most often-used motivation theories are drive and expectancy theory. Both theories focus on the concept that people have behavior response "expectations" or "anticipations" about future events. Porter and Lawler indicated that in order for motivation to exist there must be both positive outcomes and some kind of connection between behavior and the outcomes.

The differences between the theories are that expectancy argues that the anticipation of the positively valent outcome functions selectively on actions which are expected to lead to it. Drive theory views the magnitude of goal as a source of general excitement – a nonselective influence on performance. (Porter & Lawler, 1968, p. 11)

The drive theory concept of habit strength emphasizes past stimulus-response connections, and thus weights past learning heavily. Expectancy theory (Vroom, 1964/1995) places a greater emphasis upon anticipation of the future than upon past learning (Porter & Lawler, 1968). Thus, if there is no future consequence for an evaluator to

complete an accurate performance evaluation, he is less apt to do so. Old habits are hard to break.

Vroom (1964) first proposed expectancy theory as an explanation of work behavior. He proposed three related models related to his theory. The models included a job satisfaction, work motivation, and job performance (Vroom, 1995). His models were developed to address three phenomena within the interrelationship of work and motivation. They are as follows:

1. The choices made by persons among work roles.
2. The extent of their satisfaction with their chosen work roles.
3. The level of their performance or effectiveness in their chosen work roles (Vroom, 1995, p.7).

Evaluators must determine if their choice of jobs and the implications for their completing accurate performance evaluations of their subordinates align with the effectiveness they expect to exhibit within their chosen job. If they do not receive any satisfaction from conducting accurate performance evaluations, they are unlikely to do so or work to improve their performance.

According to Ormond (1999) motivation has general effects not limited to increasing an individual's energy and activity level, directing the individual toward certain goals, promoting initiation and persistence in certain activities, and affecting the learning strategies and cognitive processes employed by individuals. By influencing the motivation of the evaluator, there is the potential to obtain the general effects as described by Ormond with respect to the evaluator completing an accurate performance evaluation. Cleveland and Murphy (1992) found that "one factor that influences motivation is rewards (pp. 144-145). They also suggested that "valued rewards are clearly linked to accuracy in performance appraisal" (Cleveland & Murphy, 1992, p.172).

Harris'(1994) model of rater motivation described situational (accountability, organizational HRM strategy, task/outcome dependence, trust, and forms) and personal variables (amount of information, self-efficacy, and mood) that affected motivational factors (rewards, negative consequences and impression management) which in turn impacted performance evaluation behaviors of observations, storage, retrieval, integration, rating and feedback. Harris also suggests that the "effect of rater motivation on accuracy may be an indirect rather than direct effect (1994, P.750).

Rewards

Murphy and Cleveland (1992) suggest that "the best way to convince raters that they will be rewarded for accurate ratings is to give rewards, in as public a way as possible, to raters who comply" (p.172). Harris (1994) suggested that an evaluator is "uninterested in being accurate, which is most likely caused by a lack of any rewards (p. 751). The reward is only desirable for the evaluator to the extent that it will motivate him to provide an accurate performance appraisal to the ratee. The organizational influence upon the evaluator is discussed under evaluator ability; however, the political environment within the organization can also influence the motivation of the evaluator with regards to providing accurate performance evaluations. The five values propose an opportunity for organizational leaders to create an environment that influences the motivation of supervisors to provide accurate performance evaluations.

The Porter-Lawler (1968) model of expectancy theory has been used primarily to measure supervisor effort, peer effort and self-effort and focused on the value of the reward, the perceived effort required relative to attaining the expected reward, the actual effort, abilities and traits, role

perceptions, performance (accomplishment), rewards (fulfillment), perceived equitable rewards and satisfaction. Porter and Lawler's value of reward variable referred to the attractiveness of possible outcomes to individuals. The major focus is that for any individual, at the particular point in time, there are a variety of potential rewards to which he attaches differential value. The value of the reward to an individual can be measured using several measures such as the Thematic Apperception Test (TAT) or a sentence completion test from which some other person (i.e., the tester) infers the values of different rewards for the individual under consideration (Porter & Lawler, 1968; Vroom, 1964/1995).

Accountability

Accountability also plays a role in evaluator motivation. Mero & Motowidlo (1995) showed that evaluators are more accurate when they are held accountable by having to justify their evaluations. However, Harris (1994) found that "increased accountability to subordinates will typically decrease rater motivation to make accurate ratings" (p. 744). Holding evaluators accountable requires a concerted effort by the organization to provide clear, objective tools and resources to make the process as accurate as possible (Murphy, 2008). Understanding of the influence of evaluator ability and motivation on completion of accurate performance evaluation is important to organizations. The studies highlighted here provide support that evaluator ability and motivation may influence evaluators to provide accurate performance evaluations.

With regards to the context of increasing workforce diversity, accurate performance evaluations may be one of the key ways for diverse individuals to feel valued and respected within the organizations. It may also reduce the number of EEOC complaints, labor disputes, and lawsuits associated with diversity and unfairness in the workplace (D'Netto & Sohal, 1999; Fulkerson & Schuler, 1992; Jayne & Dipboye, 2004; Loden &Rosener, 1991; Morrison, 1992; Powell & Butterfield, 1994; Schreiber, Price, & Morrison, 1993; Schuler, Dowling, Smart, & Huber, 1992).

Legal and Ethical Consideration of Diversity Management

If asked the question is diversity a legal or ethical issue, what would the response be? There are many debates regarding diversity, but there are no clear, definitive definitions and interpretations to which all organizations and individuals adhere. The management of diversity is not a legal issue. To date, there are no known state laws, federal legislation, or municipal statues leveling the requirement of diversity on any situation. Further, there are no court cases at any level that make diversity a mandate in the workplace or any other institution. (Hughes & Stephens, Forthcoming)

Consequently, sometimes diversity is often mistaken for Equal Employment Opportunity (EEO) and Affirmative Action (AA); however, diversity goes beyond the legal requirements that EEO and AA provide (Kelly & Dobbin, 1998). Actually, "for many organizations, the definition of diversity has evolved from a focus on legally protected attributes such as race, gender, and age to a much broader definition that includes the entire spectrum of human differences" (Jayne & Dipboye, 2004, p. 410). This definition supports the idea espoused here that the five values can be used to promote workforce inter-personnel diversity because the five values exams a wide spectrum of human difference in the workplace.

Undeniably, managing diversity effectively is difficult and complex; considerable barriers such as human, psychological, organization and institutional resistance significantly challenge the implementation of the business case for diversity (Konrad, 2006; Avery, 2011). For these reasons,

"building support for a diversity initiative requires a clearly defined strategy for communicating the business case and clear roles and responsibilities for the senior leadership team, managers, and employees" (Jayne & Dipboye, 2004, p.418). The five values can be used to help build the business case. Marques (2007) explains "if conscientiously applied and facilitated at all levels, diversity can elevate an organization's long term performance to levels that are beyond all expectations"(p. 24). "The compounding effect of all these dynamic elements provides evidence to support that diversity is not a legal issue but rather a constructive mindset, strongly influencing individuals and organizations toward strategic thinking, interactive and collective discourse, and ethical behavior" (Hughes & Stephens, Forthcoming). Organizations must learn to value the differences in personality styles, learning styles, and other inter-personnel characteristics of employees and use those differences to enhance the individual and the organization.

FUTURE TRENDS

With attention placed on the future of a sustainable workforce and skills capabilities to perform the type of work (friedman & mandelbaum, 2011; reich, 2010), organizations must make rapid adjustments that force modifications in job training, skills development, human resources and talent management procedures, and location/placement of employees (hughes, 2010). This attentiveness to people and technology development design changes compels organizations to continue working towards defining and clarifying the term workforce diversity (carrell, mann, & honeycutt-sigler, 2006).

Some Research Questions to Consider

1. In what ways can the five values most effectively be integrated into the performance evaluation systems of organizations?
2. Are the five values significant enough to the organization to warrant a change in strategy for people and technology development?
3. To what extent can organizational leaders leverage their understanding of workforce inter-personnel diversity and use the five values to enhance organization and employee performance?

Researchers could also develop a typology for each of the five values (McKinney, 1966) and integrate them into the performance evaluation systems within organizations. It may provide organization leaders with a more objective measure of evaluating employee performance.

CONCLUSION

Organization leaders but must be committed to helping their organization and its employees succeed. Global workplace expansion requires leaders to understand different cultures and the needs of employees who are of different nationalities (Friedman & Mandelbaum, 2011), but they must also understand the differences within the personal characteristics of their employees. Leaders often quickly recognize the technological differences between equipment even though they are the exact same type of machine. However, they must also learn how to quickly recognize and adapt to people differences despite their willingness to perform the same tasks (Hughes, 2010). The needs of dedicated employees must be acknowledged, regardless of differences. The priority of managing workplace diversity moves

from the mundane tasks of getting people to work to a forward-thinking approach of establishing unity within individuals' assigned environment, using the individuals qualifications, training and developing the employee, supporting their self-development, and recognizing the value of the employees time as they adapt to the organizational culture. Organization leaders should understand the extent to which the five values are essential to productivity and/or competitive advantage of an organization (Hughes, 2010). This chapter is not suggesting that organizational leaders choose diverse employees over others, but that they acknowledge and understand all employees and use that knowledge to enhance and improve organizational performance.

REFERENCES

Arvey, R. D., & Murphy, K. R. (1998). Performance evaluation in work settings. *Annual Review of Psychology*, *49*, 141–168. doi:10.1146/annurev.psych.49.1.141

Avery, D. R. (2011). Support for diversity in organizations: A theoretical exploration of its origins and offshoots. *Organizational Psychology Review*, *1*, 239–256. doi:10.1177/2041386611402115

Baird, L., & Meshoulam, I. (1988). Managing two fits of strategic human resource management. *Academy of Management Review*, *13*, 116–128.

Banks, C. G., & Murphy, K. R. (1985). Toward narrowing the research-practice gap in performance appraisal. *Personnel Psychology*, *38*, 335–345. doi:10.1111/j.1744-6570.1985.tb00551.x

Banks, C. H. (2002). A descriptive analysis of the perceived effectiveness of Virginia tech's faculty development institute. *Dissertation Abstracts International, 64*(08). (UMI No. 3102585)

Banks, C. H. (2006). Career planning: Toward an inclusive model. In Karsten, M. (Ed.), *Gender, race and ethnicity in the workplace* (*Vol. 3*, pp. 99–116). Westport, CT: Greenwood. Publishing Group, Inc.

Banks, C. H., & Nafukho, F. M. (2008). Career transitions across and within organizations: Implications for human resource development. In T.M. Chermack & J. Storberg-Walker (Eds.), *2008 Academy of Human Resource Development Annual Research Conference Proceedings,* (pp. 1096- 1102). Bowling Green, OH: Academy of Human Resource Development.

Becker, B. E., Huselid, M. A., & Beatty, R. W. (2009). *The differentiated workforce: Transforming talent into strategic impact*. Boston, MA: Harvard Business Press.

Bernardin, H. J., & Buckley, M. R. (1981). Strategies in rater training. *Academy of Management Review*, *6*(2), 205–212.

Bernardin, H. J., Buckley, M. R., Tyler, C. L., & Weise, D. S. (2000). A reconsideration of strategies in rater training. *Research in Personnel and Human Resources Management*, *18*, 221–274.

Bernardin, H. J., & Villanova, P. (1986). Performance appraisal. In Locke, E. A. (Ed.), *Generalizing from laboratory to field settings* (pp. 43–62). Lexington, MA: Lexington Books.

Bingham, K., Gewin, A., Hu, C., Thomas, K., & Yanchus, N. (2005). The roles of protégé race, gender, and proactive socialization attempts on peer monitoring. *Advances in Developing Human Resources*, *7*(4), 540–555. doi:10.1177/1523422305279681

Boudreaux, M. A. (2001). Career development: What is its role in human resource development? In O. A. Aliaga (Ed.), *Academy of HRD 2001 Conference Proceedings* (pp. 805-812). Bowling Green, OH: Academy of Human Resource Development.

Brass, D. J., & Burkhardt, M. E. (1993). Potential power and power use: An investigation of structure and behavior. *Academy of Management Journal*, *36*(3), 441–470. doi:10.2307/256588

Burkhardt, M. E., & Brass, D. J. (1990). Changing patterns or patterns of change: The effects of a change in technology on social network structure and power. *Administrative Science Quarterly*, *35*, 104–127. doi:10.2307/2393552

Campbell, J. P. (1990). Modeling the performance prediction problem in industrial and organizational psychology. In Dunnette, M. D., & Hough, L. M. (Eds.), *Handbook of industrial and organizational psychology* (2nd ed., *Vol. 1*, pp. 687–732). Palo Alto, CA: Consulting Psychologists Press.

Carrell, M., Mann, E., & Honeycutt-Sigler, T. (2006). Defining workforce diversity programs and practices in organizations: A longitudinal study. *Labor Law Journal*, *57*(1), 5–12.

Cleveland, J. N., & Murphy, K. R. (1992). Analyzing performance appraisal as goal-directed behavior. *Research in Personnel and Human Resources Management*, *10*, 121–185.

D'Netto, B., & Sohal, A. (1999). Human resource practices and workforce diversity: An empirical assessment. *International Journal of Manpower*, *20*, 530–547. doi:10.1108/01437729910302723

Day, D. V., & Sulsky, L. M. (1995). Effects of frame-of-reference training and information configuration on memory organization and rating accuracy. *The Journal of Applied Psychology*, *80*, 158–167. doi:10.1037/0021-9010.80.1.158

Deal, T., & Kennedy, A. (1984). *Corporate cultures*. Reading, MA: Addison-Wesley.

Delery, J. E. (1998). Issues of fit in strategic human resource management: Implications for research. *Human Resource Management Review*, *8*, 289–309. doi:10.1016/S1053-4822(98)90006-7

Folger, R., & Greenberg, J. (1985). Procedural justice: An interpretive analysis of personnel systems. *Research in Personnel and Human Resource Management*, *3*, 141–183.

Friedman, T. L., & Mandelbaum, M. (2011). *That used to be us: How America fell behind in the world it invented and how we can come back*. New York, NY: Farrar, Strauss, and Giroux.

Fulkerson, J. R., & Schuler, R. S. (1992). Managing worldwide diversity at Pepsi-Cola International. In Jackson, S. E. (Ed.), *Diversity in the workplace: Human resources initiatives, society for industrial and organisational psychology (The Professional Practice Series)*. New York, NY: Guildford Press.

Harris, M. M. (1994). Rater motivation in the performance appraisal context: A theoretical framework. *Journal of Management*, *20*, 737–756. doi:10.1016/0149-2063(94)90028-0

Hayes, K. H. (2000). *Managing career transitions: Your career as a work in progress* (2nd ed.). Upper Saddle River, NJ: Prentice Hall.

Holland, J. L. (1973). *Making vocational choices: A theory of careers*. Upper Saddle River, NJ: Prentice-Hall.

Hughes, C. (2010). "People as technology" conceptual model: Towards a new value creation paradigm for strategic human resource development. *Human Resource Development Review*, *9*(1), 48–71. doi:10.1177/1534484309353561

Hughes, C., & Stephens, D. (in press). Leveraging workforce diversity through a career development paradigm shift. In Scott, C., & Byrd, M. (Eds.), *Handbook of research on workforce diversity in a global society: Technologies and concepts*. Hershey, PA: IGI Global.

Jayne, M., & Dipboye, R. (2004). Leveraging diversity to improve business performance: Research findings and recommendations for organizations. *Human Resource Management*, *43*, 409–424. doi:10.1002/hrm.20033

Karsten, M. F., & Igou F. (2005). Career planning: A model for a diverse workforce. *Refereed Proceedings of the North American Management Society track at the 2005 Midwest Business Administration Association Conference.* Chicago. IL: MBAA.

Kaye, B. (1997). *Up is not the only way.* Englewood Cliffs, NJ: Davies-Black.

Kelly, E., & Dobbin, F. (1998). How affirmative action became diversity management: Employer response to antidiscrimination laws, 1961 to 1996. *The American Behavioral Scientist*, *41*, 960–984. doi:10.1177/0002764298041007008

Kerno, S., & Kuznia, K. (2007). Modern career navigation: Preparing for success despite uncertainties. *Industrial Engineer*, *39*(10), 31–33.

Konrad, A. (2006). Leveraging workplace diversity in organizations. *Organization Management Journal*, *3*(3), 194–189. doi:10.1057/omj.2006.18

Lawler, E. E. III. (2003). *Treat people right!: How organizations and individuals can propel each other into a virtuous spiral of success*. San Francisco, CA: Jossey-Bass.

Loden, M., & Rosener, J. B. (1991). *Workforce America! Managing employee diversity as a VITAL resource.* Homewood, IL Business One Irwin.

Marques, J. (2007). Diversity as a win-win strategy. *Management Services*, *51*(1), 22–24.

McKinney, J. C. (1966). *Constructive typology and social theory*. New York, NY: Appleton-Century-Crofts.

Mero, N. P., & Motowidlo, S. J. (1995). Effects of rater accountability on the accuracy and the favorability of performance ratings. *The Journal of Applied Psychology*, *80*, 517–524. doi:10.1037/0021-9010.80.4.517

Morrison, A. M. (1992). *The new leaders: Guidelines on leadership diversity in America*. San Francisco, CA: Jossey- Bass Publishers.

Murphy, K. R. (2008). Explaining the weak relationship between job performance and ratings of job performance. *Industrial and Organizational Psychology: Perspectives on Science and Practice*, *1*(2), 148–160. doi:10.1111/j.1754-9434.2008.00030.x

Murphy, K. R., & Cleveland, J. N. (1991). *Performance appraisal: An organizational perspective*. Boston, MA: Allyn & Bacon.

Ormond, J. E. (1999). *Human learning* (3rd ed.). Upper Saddle River, NJ: Prentice-Hall Inc.

Pfeffer, J. (1994). *Competitive advantage through people: Unleashing the power of the workforce*. Boston, MA: Harvard Business School Press.

Pitts, D. (2006). Modeling the impact of diversity management. *Review of Public Personnel Administration*, *26*(3), 245–268. doi:10.1177/0734371X05278491

Porter, L. W., & Lawler, E. E. (1968). *Managerial attitudes and performance*. Homewood, IL: Richard D. Irwin, Inc.

Porter, L. W., & Steers, R. M. (1973). Organizational, work, and personal factors in employee turnover and absenteeism. *Journal of Management*, *80*, 151–176.

Powell, G. N., & Butterfield, D. A. (1994). *Race, gender and the glass ceiling: an empirical study of actual promotions to top management.* Paper presented at the annual meeting of the Academy of Management, Dallas, TX.

Reich, R. B. (2010). *Aftershock: The next economy and America's future*. New York, NY: Alfred A. Knopf.

Schein, E. H. (1975). How career anchors hold executives to their career paths. *Personnel*, *52*, 11–24.

Schreiber, C. T., Price, K. F., & Morrison, A. (1993). Workplace diversity and the glass ceiling: Practices, barriers, possibilities. *Human Resource Planning*, *16*(2), 51–69.

Schuler, R. S., Dowling, P. J., Smart, J. P., & Huber, V. L. (1992). *Human resource management in Australia* (2nd ed.). Sydney, Australia: Harper Educational Publishers.

Super, D. (2002). A life-span, life-space approach to career development. In Brown, D., & Brooks, L. (Eds.), *Career choice and development* (2nd ed.). San Francisco, CA: Jossey-Bass. doi:10.1016/0001-8791(80)90056-1

Thomas, K. M. (2008). *Diversity resistance in organizations*. New York, NY: Lawrence Erlbaum.

Tziner, A., Murphy, K. R., & Cleveland, J. N. (2001). Relationships between attitudes toward organizations and performance appraisal systems and rating behavior. *International Journal of Selection and Assessment*, *9*, 226–239. doi:10.1111/1468-2389.00176

Vardi, Y. (1980). Organizational career mobility: An integrative model. *Academy of Management Review*, *5*, 341–355.

Viswesvaran, C. (2001). Assessment of individual job performance: A review of the past century and a look ahead. In Anderson, N., Ones, D. S., Sinangil, H. K., & Viswesvaran, C. (Eds.), *Handbook of industrial, work and organizational psychology* (*Vol. 1*, pp. 110–126). London, UK: Sage.

Vroom, V. H. (1964). *Work and motivation*. New York, NY: John Wiley & Sons, Inc.

Vroom, V. H. (1973). A new look at managerial decision making. *Organizational Dynamics*, *1*(4), 66–80. doi:10.1016/S0090-2616(73)80024-5

Vroom, V. H. (1995). *Work and motivation*. San Francisco, CA: Jossey-Bass.

Vroom, V. H., & MacCrimmon, K. R. (1968). Toward a stochastic model of managerial careers. *Administrative Science Quarterly*, *13*(1), 26–46. doi:10.2307/2391260

Welch, J. (2005). *Winning*. New York, NY: HarperCollins.

Woehr, D. J., & Huffcutt, A. I. (1994). Rater training for performance appraisal: A quantitative review. *Journal of Occupational and Organizational Psychology*, *67*(3), 189–205. doi:10.1111/j.2044-8325.1994.tb00562.x

Wright, P. M., & McMahan, G. C. (1992). Theoretical perspectives for strategic human resource management. *Journal of Management*, *18*, 295–320. doi:10.1177/014920639201800205

KEY TERMS AND DEFINITIONS

Career Development: A pillar of HRD, focuses on the alignment of individual subjective career aspects and the more objective career aspects of the organization in order to achieve the best fit between individual and organizational needs as well as personal characteristics and career roles.

Career Path: The process of guiding and developing employees' work experiences and positions within jobs that build career knowledge.

Employee Location Value: The value an organization may gain from employees, established by their placement within the career development and organizational hierarchy or structure. A concept that takes into account both the internal and external location value of the employee to the organization in the consideration of career development experiences and opportunities to leverage workplace diversity across multiple organization levels.

Human Resource Development (HRD): The study and practice of increasing the learning capacity of individuals, groups, collectives, and organizations through the development and application of learning-based interventions for the purpose of optimizing human and organizational growth and effectiveness.

Ratees: Employees being rated during their performance evaluation.

Workforce Inter-personnel Diversity: A focus on the ways that individuals differ in their personal characteristics within the workplace.

Chapter 14
Competitive Advantage/ Conclusion

ABSTRACT

The five point Hughes Value Creation Model for Organizational Competitive Advantage or the Five Values Model draws on many fields of study including psychology, education, human resource management, human resource development, strategic technology management, management, and engineering. All of these fields intersect within the workplace, primarily through people and technology development. Understanding the links between people and technology development and value creation allows organizations to extend their competitive advantage in ways not previously considered. People and technology embody the value chain as organizations seek to succeed in a global marketplace. However, the need for this model is determined by its users since no organization is the same. This model represents a comprehensive, theoretical, yet operational model that can be used to explain and illustrate value for organizations. It is robust, clear, easy to follow, and fills organizational needs. However, the need is determined by its users since no organization is the same.

INTRODUCTION

The book is primarily focused on US organizations; however, emerging economies may be facing similar issues today. Emerging economy leaders could use this book as a learning tool, reference book, to avoid some of the issues and concerns covered within this book. Many multinational corporations have locations within emerging countries where transfer of knowledge is crucial to success. The skill set disparity across international borders is primarily why this five point model is relevant. Without assessing the supply risks, skill set needs, economy of production, time to market, and all other relevant business trends within the organization design, the organization would not be competitive. This model helps organization leaders successfully manage these types of workplace issues because these elements require effective use of people and technology for competitive advantage.

The ultimate goal of the model and this book is to provide organizations with ways to create additional value through people and technology development that results in competitive advantage. The five points of the model are perspectives, the PT model, development initiatives, the five values, and measures. The perspectives are the first part

DOI: 10.4018/978-1-4666-0240-3.ch014

of the model and have been clearly defined. They are cognitive, cultural, and behavioral. Each organization must identify its dominant perspective and adjust its development initiatives, as needed, to ensure alignment of goals and strategies.

The second part of the model is the PT model. Understanding that the PT model is an opportunity for leaders to evaluate opportunities of equivalence that exist between people and technology is essential. All organizations have people and technology and both must be developed. Technology and Human Resource Development are two fields that are most relevant to helping organizations create value from integrating people and technology development. In some instances one has more value than the other; however, this should not devalue one in contrast to the other. The degree of difference is not as important as the blend of the two together to achieve organizational performance goals.

The third part of the model is the development initiatives. These initiatives are where the organization should attempt to align their strategies with the perspectives of the organization. The model provides examples of types of initiatives that are appropriate within each perspective. These initiatives are not limited. There may be instances where the initiatives overlap to benefit the organization. This book and the PT model should help leaders determine where value occurs with regards to people and technology development. It should help organization leaders determine the specific initiatives that are advantageous for their competitive advantage.

The fourth part of the model is the values. There are five values that are common between people and technology development. They are location, use, maintenance, modification, and time value. The values are distinct, but they do not exist independent of one another. They represent the multidimensionality of technology and people. Examples of each value are presented within the representative chapters of this book. Recognizing the commonality of people and technology may help leaders to begin to consider the value of people on the same scale that they currently value technology within the workplace.

The fifth part of the model is the measures. The measures are a combination of the five values. They can be measured individually or collectively to yield a competitive advantage for the organization. For example, time value can be measured in length of time in position, seniority of an employee with the firm; it can also be measured along with use value with regards to efficiency of employee performance. Technology's location value can be measured in terms of capital expense to store the technology and/or purchase the technology. There is no concrete formula for the measures because each organization will be able to determine how the values are represented within their particular organization. This does not preclude researchers and practitioners from developing new measures.

One example of how this model can be applicable to an organization is to correlate the funding of military troops during war time versus during peace time. The theme would center on military hardware investment versus soldier benefits. How is funding based on the location value of the troops during war vs. peace? What is the use benefit for military spending during a war as opposed to when not a war? What is the maintenance cost for troops and their technologies while at war vs. peace? What is the modification value of the GI bill while at war vs. peace? What is the time value of troops when at war than during peace time? One can anecdotally respond to these questions in the context of this model; however, that is not the purpose. The purpose is that a thought process shift should have occurred as a result of reading this book and gaining an understanding of how to value people as technology within the workplace.

Triangulation of the cognitive, behavioral and cultural perspective can be categorized as:

1. *Thinking:* Cognitive
2. *Doing:* Behavioral
3. *Cultural Context:* Cultural

These perspectives are present in all organizations at some level and the cognitive, behavioral, and cultural debate is a limiting factor in the success of organizations. Without theory, we rely on habit and the past and fail to see opportunity. We also cannot accurately estimate, explain, or predict the impact of decisions. Organizations may not even recognize that the cognitive, behavioral, and cultural dynamic is occurring daily within their facilities and how they are limiting their ability to win against current and future competition; yet, they must come to terms with and begin to understand the ideas. They should begin to question: How do organizations thrive within their dominant context? If they are understood to operate from the cognitive perspective, is this understood by all employees and not an issue that prevents interaction across units that can hinder success? According to Wittrock (1978) "Attribution of failure to lack of effort, rather than to luck or to lack of ability, leads to the inference that effort should be increased to attain success in school" (p. 20). How much effort is needed from the organization and the individual in the workplace to be successful? The ability is present within the organization. How do they leverage the ability to locate, use, maintain, modify, and keep technology and people relevant for their prosperity?

Is there a perspective mismatch within organizations with regards to people and technology development?

People and technology have to be complementary to each other for organizations to optimize their competitiveness in the marketplace. Chapter 12 concludes and presents competitive advantage examples and possibilities for organizations that value people and technology within the workplace.

MAIN FOCUS OF THE CHAPTER

Evaluating the usefulness of the five values will be essential to determining how competitive advantage is created by the organization. Organizations have performed evaluations of programs and initiatives to attain participant reactions immediately after completion of the program; however, there are other reasons that programs should be evaluated. Sackett and Mullen (1993) described four reasons why evaluation should be completed:

1) to make decisions about the future use of a training program or technique (e.g., continue, modify, or eliminate); 2) to make decisions about individual trainees (e.g., certify as competent, provide additional training, etc.); 3) to contribute to a scientific understanding of the training process; or 4) for political or public relations purposes (e.g., documenting success may increase the training function's credibility and visibility within an organization). (p.619).

If there are concerns regarding one of the first two items then a program should not be repeated and no personnel decisions should be based on trainee performance. Evaluation is unlikely unless the evaluator has a strong enough interest in the third or fourth reasons to expend the resources needed for evaluation. Professional or personal development programs offered as an employee benefit and positioning the organization as a progressive place to work may be examples of programs not likely to undergo rigorous outcome evaluation. Effective evaluation increases credibility and visibility of the training function (Brinkerhoff, 1987; Bushnell, 1990; Galvin, 1983; Goldstein, 1980; Kirkpatrick, 1967/1987/1994/1996; Warr, Bird, & Rackham, 1970). All four of these items are relevant to the five values model, thus organizations should consider conducting evaluations to determine if there are areas for improvement through use of the model.

The five values model should be evaluated as organizations determine future use of training programs and techniques. It can be evaluated to determine the individual employee's location, use, maintenance, modification, and time value to the organization. Evaluating the model will

contribute to the scientific understanding of the training process within organizations. Evaluating the five values model will also contribute to the credibility and visibility of the training and development function within the organization. The model should be evaluated relative to its ability to help organizational leaders integrate people and technology development within the organization.

ISSUES, CONTROVERSIES, PROBLEMS

Employees seek high quality feedback for deeper understanding of their performance inefficiencies (Balcazar, Hopkins, & Suarez, 1985; Balzer, Doherty, & O'Connor, Jr., 1989; Kluger & DeNisi, 1996). It is very demotivating to an employee when managers cannot provide feedback that aligns directly with their performance. Employees want to be regarded for their depth and not just surface understanding; yet, they are not asking management to give up technological interests. Most employees know the cost of technology and like the way(s) it helps them improve their work performance; however, they do not want their value to be marginalized by technology either (Baptiste, 2001; Brynjolfsson & McAfee, 2011; Cowen, 2011; Ford, 2009; Levy & Murnane, 2005; Pfau & Kay, 2002).

Individuals often value accuracy of technology, but the technology cannot target its information on its own. The quality of targeting information correctly requires some manipulation of the technology by highly qualified people. Technology allows people to leverage their ability to the benefit of the organization if managed appropriately. We live in a highly technological, globalized economy that requires the contribution of people to produce desired output.

Banks (2009) identified eight critical human performance issues in the US

1. Expanding empirical research to address issues of hedonism;
2. Training, developing, inspiring and motivating employees;
3. The lack of consistent, testable models of human performance improvement;
4. Lack of focus on individual performers to achieve performance improvement goals;
5. Communicating and measuring value of human performance;
6. Managing and leveraging resources to reduce resource constraints;
7. Adaptability to change; and
8. Ethical implications for human performance.

These issues must be resolved for human performance to improve in the US. The five values model offers an opportunity to solve some of the issues described here. The five values model adds to the literature and is available for empirical studies to be developed. The model focuses on human resource development and technology development to improve training and motivation of employees and leverage all organizational resources. It suggests a method for organizations to adapt to change and ethically deal with employee concerns. It also allows organizations to investigate the inter-personnel diversity of its employees. Inter-personnel diversity recognizes that there are unique characteristics of each employee regardless of whether or not they are performing the same jobs. Leveraging the inter-personnel diversity will allow organizational leaders to build stronger teams and provide job training that is relevant to the needs of the individual employees. Applying the five values to each employee provides a way to clearly distinguish the ways that the employees are inter-personally different.

Motivation has been studied for many years and there are many theories and definitions of motivation (Herzberg, 1966; Maslow, 1987; Steers, & Porter, 1979; Weiner, 1972). Historically, psychologists have directed their studies of drive and expectancy theory towards filling in the missing

empirical content of hedonism (Harrell & Stahl, 1986; House, Shapiro, & Wahba, 1974; Ramlall, 2004). As in the hedonistic doctrine, people are assumed to behave in ways that maximize certain types of outcomes (rewards, satisfiers, positive reinforcements, and so on) and minimize other outcomes (punishments, dissatisfiers, negative reinforcements, and so on) (Steers, Mowday, & Shapiro, 2004). However, some of the circularity of hedonism has been overcome by the development of more precisely stated models and by the linking of the concepts in these models to empirically observable events (Vroom, 1995).

Technology is only as effective as the person who is developing, designing, managing and/or monitoring the technology. Individuals within the workplace may be more educated and/or diverse; however, their ability to apply their educational knowledge within the context of the organization and to leverage their inter-personal diversity to strengthen organizational performance is only as effective as the individual determines.

Ringo and MacDonald (2007) identified "barriers to using human capital data and information to make workforce decisions" (p.63). The barriers were:

1. Human capital systems are poorly integrated;
2. Human capital systems are not well integrated with other organizational systems (e.g., financial, sales);
3. Metrics are not well defined;
4. Inability to extract information from our HR systems;
5. HR personnel have lack of experience analyzing data in order to make decisions;
6. Quality level of human capital data is suspect;
7. Managers unwilling to access information;
8. HR personnel not oriented toward using data in decision making; and
9. Lack of executive level support. (p.63)

Ringo and MacDonald (2007) provided possible solutions to "[i]mprove [the] ability to use human capital data and information to make workforce decisions" (p.63) including:

1. Deploying tools to make it easier to analyze human capital data and information;
2. Improving quality of human capital data;
3. Integrating/unifying human capital systems across the organization;
4. Improving definitions of metrics;
5. Educating HR personnel on using/extracting information from HR systems;
6. Providing dashboards to managers/employees to view critical performance statistics;
7. Integrating/unifying human capital systems with other systems (e.g., financial, sales);
8. Educating employees on using/extracting information from HR systems; and
9. Recruiting HR personnel with more analytical backgrounds. (p.63)

Human performance professionals may want to consider these barriers and possible solutions as they continue to explore what and how to measure and communicate the value of human performance activities. Torraco (2000) noted that human performance professionals should not brush aside learning opportunities due to the lack of outcome measures, but suggests that more attention should be given to cultivating our ability to communicate the value of learning.

Torraco (1999) also reported that although "measurement is necessary to demonstrate that performance has improved, measurement is not necessary to demonstrate the value of learning. This presents a paradox—performance improvement requires both measurement and learning; yet, rarely is learning's contribution to performance improvement measurable" (p. 608). This is indeed a paradox to human performance practitioners who are asked to show the value of learning activities through Return on Investment (ROI) strategies (Phillips, 2003). The inability to measure and explain the value of learning is critical to the viability of human performance professionals within

for-profit corporations and other entities. Torraco (1999) concluded that "performance criteria can help determine the scope and depth of learning needed to achieve system goals. This is especially important when the value of learning must be balanced against its costs" (p. 608). To be effective all organizations must value learning within the context of business strategies so that the organization can maintain a competitive advantage.

Ringo and MacDonald (2007) provided "three key capabilities [that] influence the workforce's ability to adapt to change. First, organizations must be capable of predicting their future skill requirements. Second, they need to effectively identify and locate experts. And lastly, they must be able to collaborate across their organizations, connecting individuals and groups that are separated by organizational boundaries, time zones and cultures" (p.2). Ringo and MacDonald (2007) also identified four globally important themes: 1) Developing an adaptable workforce – A critical capability; 2) Revealing the leadership gap – Future growth; 3) Cracking the code for talent; 4) Driving growth through workforce analytics: improving operational excellence and increasing top-line growth.

The adaptability of the workforce is essential within the continuously changing global economic environment in which organizations operate. The speed with which technology has improved has increased the opportunity for communication within and across organizations. The key points for North America were that:

1. North American firms have a strong focus on "e-enabling" HR processes and activities.
2. Companies recognize the need for knowledge transfer due to changing workforce demographics [specifically age differences].
3. HR appears less likely to play a leading role in workforce transformation because business unit leaders are in greater supply and may have more experience in leading change. (Ringo & MacDonald, 2007, p.55)

North American firms indicated their concern with their ability to "pass knowledge along from older to younger workers (39 percent versus 28 percent worldwide) and their ability to bring new employees up to speed (39 percent versus 24 percent)" (Ringo & MacDonald, 2007, p.59).

HRD professionals must become adept at leading change within organizations (Beckhard & Harris, 1987; Biech, 2004; Burkhardt & Brass, 1990; Cummings & Worley, 2005; Kotter, 1996; Olmosk, 1972). If organizational leaders use the Five Values model, HRD professionals will have a tool with which they could develop an understanding of the people and technology in the workplace and lead the change initiatives necessary to integrate the benefits of people and technology for organizational competitive advantage. Ringo and MacDonald's (2007) work provided a baseline to propel HR professionals forward. Their information allowed HR professionals to see how they compare to other countries and highlighted the need for better knowledge attainment and transfer.

Solutions and Recommendations

Conceptual and technical innovation, together, will yield a competitive advantage for the organization that can leverage their people and technology resources to extract value. Applying the five values model can help organizations identify values and leverage them for economic gain. HRD is represented by the three stools of training and development, organization development, and career development. There is not a clear model for career development within the HRD field. This model could provide a way for HRD to leverage the oft forgotten career development leg of the HRD stool. It will also allow them to strengthen the organization development and training and development stools. Integrating HRD with the business strategy through the use of the Five Values model can only enhance HRD's roll in organizational success. There is room for growth within strategic human resource development (SHRD).

The Five Values model is one tool to assist HRD researchers and professionals to affect change and growth within their organizations.

This model has introduced the cognitive, behavioral and cultural perspectives to the apex of the organization. These perspectives have not been previously introduced in the organization theory or cultural theory literature in this context. These perspectives are frameworks within which operational cultures of organizations can be improved for leaders to develop both people and technology.

Cognitive Perspective

The cognitive perspective has not been front and center in organization research. Smircich (1983) supported the work of Pondy and Boje (1975/1981) by stating that:

The major practical consequence of conceiving of organizations as socially sustained cognitive enterprises is the emphasis on mind and thought. Organization members are seen as thinking as well as behaving. This is hardly a startling view, and yet much organization research ignores the place of the human mind. (p. 350)

The cognitive perspective was not as valued in many organizations because employees were expected to do what they were told as opposed to thinking for themselves. A societal cultural shift has occurred where knowledge management (Alavi & Leidner, 2001; Bollinger & Smith, 2001; Carlisle, 2002; De Long, & Fahey, 2000; Gold, Malhotra, & Segars, 2001; Ruggles, 1998) and critical thinking skills (Braun, 2004; Ennis, 1962/1989; McPeck, 1990) are being demanded of leaders and employees within organizations. Schein (1990) noted that the deepest level of culture will be the cognitive in that the perceptions, language, and thought processes that a group comes to share will be the ultimate causal determinant of feelings, attitudes, espoused values, and overt behavior. (p.111)

The strength of the cognitive perspective is dependent upon the mind of the employees and how employees work together to use their minds to improve the performance of the organization.

Behavioral Perspective

The behavioral perspective has been the dominant perspective in most organizations because employee behavior is easy to see and measure. Understanding the employee behavior from a cognitive or cultural perspective has not been as easily understood. The speed at which organizations compete has also forced them to try and control the behavior of organizations by limiting employee input to physical action as opposed to analytical thought or expressing of feelings. The behavioral perspective has also allowed organizations to objectively replace human beings with machines/technology because they focus only on what is done to meet organizational goals. The final outcomes or results that meet cost objectives are what are measured not whether the outcomes were achieved by a machine or a human being.

While the behavioral perspective remains dominant in most organizations, there is room for change in which both human behavior and technology strengths can be leveraged so that one is no more dominant than the other. By valuing people in ways similar to technology, objectives can be met and/or exceeded. Optimizing the value of people within the organization can remove barriers to success.

Cultural Perspective

The combination of culture and organization into organizational culture is ultimately a search for order within our world. Trice and Beyer (1984) introduced the concepts of cultural rites that are manifested to produce expressive social consequences. Their six rites (rites of passage, degrada-

Table 1. Comparing the five values of people and technology development to six cultural rites and their manifest, expressive social consequences

Hughes (2011) Five Values of People and Technology Development	*Trice and Beyer (1984, p. 657) Six Cultural Rites*	*Manifest, Expressive Social Consequences (Trice & Beyer, 1984, p.657)*
Location, Use, Maintenance Modification, Time	Rites of Passage	Facilitate transition of persons into social roles and statuses that are new for them
Modification, Time	Rites of Degradation	Dissolve social identities and their power
Maintenance, Modification	Rites of Enhancement	Enhance social identities and their power
Maintenance, Modification	Rites of Renewal	Refurbish social structures and improve their functioning
Use, Time	Rites of Conflict	Reduce conflict and aggression
Location	Rites of Integration	Encourage and revive common feelings that bind members together and commit them to a social system

tion, enhancement, renewal, conflict reduction and integration all have application within the context of the *Five Values* model (See Table 1).

Location, use, modification, maintenance, and time value all relate to rites of passage because employees would be able to be transitioned into new roles and to new experiences. Employees may experience placement in a new location within the organization to use all of their KSAs. They may be introduced to new training and development opportunities that allow them to transition to new roles within the organization or they may have had self-developed skills recognized by the organization through promotion. Organizations would want employees to form an allegiance to both the organization and their job and subsequently remain with the organization for a long time.

Modification and time value relate to rites of degradation because although employees may self-develop, their skills may not be valued by the organization. The employee may experience a feeling of degradation as opposed to celebration of their accomplishments. Time value may be related to rites of degradation from the perspective of employees who have seniority being demoted or passed over for promotion because they do not use their KSAs or do not have the necessary KSAs despite their years with the organization.

Maintenance and modification value relate to both rites of enhancement and rites of renewal. Employees may experience rites of enhancement through an increase in social identity and power with in the workplace as their KSAs are developed by the organization and through personal efforts not supported by the organization. They may experience rites of renewal as they continuously develop their KSAs both internally and external to the organization. They may experience intrinsic and extrinsic motivation that helps them to increase their productivity and power within the workplace.

Location, use, and time value most closely relate to rites of conflict. Employees may be frustrated when they are not placed on the right job or in the right location in the workplace. They may also become discouraged when not allowed to use their KSAs. They may also experience conflict when they feel that their time with and organization is not rewarded or that they are wasting time in a position without possibility for growth and enhancement.

Organization leaders may require socialization interventions as they attempt to execute the Five Values necessary to better integrate people and technology. Socialization is needed to ensure employees acquire core values. Rites and rituals help employees to maintain the existing value system of the organization and can also be used

to help facilitate organizational changes (Wiener, 1982/1988). Organizations must show that they can successfully institute changes without unnecessarily degrading employees. The displacement of employees with technology is one such case where employees may have felt degraded even though it may not have been the intent of organization leaders (Beyer & Trice, 1987).

Enhanced Skills of HRD Researchers and Professionals

Measurement and research techniques are often considered to be limited to higher education researchers as opposed to practitioners in the workplace; however, to understand what is happening in the workplace, workplace leaders and HRD practitioners must apply valid and reliable research techniques to improve their performance. A quasi-experiment would be better for an organization with limited resources, lots of constraints, and lower risk in making an incorrect decision based on the research (Werner & DeSimone, 2012). One recommendation would be that HRD professionals explore why there is not more quasi-experimental research studies conducted in the workplace.

There is also a perception that HRD professionals do not evaluate their programs because they do not want to fail and lose their jobs. Does this not pose a bigger problem for the organization; if HRD is failing and it is not known prior to employees failing at their job tasks due to improper training, does not the organization fail as well? What is HRD professionals' role with regards to the ethics of developing employees? Do HRD professionals even have a code of ethics with regards to their impact on employees in the workplace and if not, should they have one?

Improving and instituting objective, professional research policies within organizations may help to increase the performance level of organization and HR leaders. Leaders who are afraid to evaluate their own performance send a negative message throughout the organization. Is the focus on solving the problem or on looking good within one's job? Having a code of ethics within each organization where employee development is valued may increase employee morale if they feel that their KSAs are a valued part of the organization strategy.

FUTURE TRENDS

The findings from analyses in this book are that new and more empirical research is needed to improve the competitive advantage of organizations through their understanding of the value of people and technology within the workplace. There are many points of interest for research within this book. One future trend that is very important for people development is the need for a paradigm shift away from the focus on the training instructor to the focus on the trainee. There must be ways to enhance the trainees' ability to learn using all available materials and resources with the right training strategy and system.

People must also bring value to their jobs through their performance. Most people seek positions that are meaningful or satisfying as defined by the amount of autonomy, complexity, and connection between effort and reward that they find in the job (Gladwell, 2009). The technology value is already inherently accepted. Whitman (2010) coined the phrase Power of Many that describes how a

company or organization utilizes communication and networking powers of modern technology to do things that otherwise would be impossible. But the point is to use technology not only to save costs and improve efficiencies but also as a way to engage the energy, ideas, and goodness of people, their desire to team up with others who share their interests and work together to make their own lives and live in general better. It demands a style of management and leadership that emphasizes communication and openness,

and when difficult decisions loom, it demands that everybody consider this question: What is the right thing to do?

People and technology must be integrated to enhance the other in the workplace. To accomplish this managers and leaders must change the way they think and perform within the workplace. Management intent must lean towards integrative success of people and technology in the workplace.

Some areas for future research would be to:

1. Explore ways to add to the knowledge management literature regarding structures of organizing employee knowledge.
2. Explore ways to add to the HRD literature regarding structures of imparting knowledge to employees.
3. Examine the implications for developing low skilled workers using this model. How can organizations benefit from developing these workers to help accomplish organizational goals?
4. Determine if and how corporate value statements related to HR value statements.
5. Determine if there are HRD value statements and do they align with corporate value statements?
6. Determine if the five values model help HRD professionals think in a disciplined way about the "hardware" –physical well-being and human capacity and the "software" – skills, information, etc… of the workers.
7. Determine if and how computer technology including online education and social media (Lee & Lan, 2007; Wang, 2011) effect the maintenance and modification value of employees.
8. Determine how HRD and technology development changes and/or mediates the relationship between human capital, social capital and structural capital through the cognitive, behavioral and cultural perspectives of the model.
9. Wlodkowski and Ginsberg (1995) suggested that culturally responsive teaching could convert learning institutions into change agents in improving social and economic improvement rather than operating within the pretense of equity in an increasingly unequal world. Within the global economy, this may be applicable to organizations as well. It would present a great research question if looked at in relation to Rogers' (1995) diffusion of innovation theory. Consider a University or organization as change agent and the extent with which its existence as a communication channel is used to improve social and economic situations of all stakeholders.
10. Explore how codes of ethics play a role in how HR professionals develop people within the workplace.

There are many implications for future research that can be developed from this model. Hopefully, it will be a benefit to organizations and researchers as they seek to compete in a global economy.

CONCLUSION

This book examined the ethic of people and technology in organizations that determine organizational efficiency. It also challenged and examined the context in which people and technology is valued and meaningful in corporate society. In general, institutional or organizational transformation means "*planning* alterations in core elements of the institutions: authority, goals, decision-making practices and policies" (Fox, 2008, p.83). Transformational change cannot be limited to the alteration in the day-to-day practices; it must also change organizational culture, customs, norms, out-dated procedures, communication styles, and reward structures. Not all organizations require transformational change to remain competitive in the marketplace. The immensity of transfor-

mational change can pose a daunting picture for organizational leaders who know that their organization needs to transform. The five values model for people and technology development can provide a starting point for this change. Organizations can begin by determining its dominant perspective; they can then come to terms with the concept of PT. Once they understand the concept they can begin to ensure that their initiatives for change align with their perspectives with regards to people and technology. They can determine all of this within the context of the value(s) that are needed most within their specific organization.

This framework is continuing to evolve but within the evolution heuristics are being developed to make its use easier to interpret and evaluate for applicability within today's modern workplaces. Using the five point *Hughes Value Creation Model for Organizational Competitive Advantage* can assist organizations as they determining the extent to which value creation can be derived from integrating technology and human resource development from the cognitive, behavioral and cultural perspectives in the workplace. Without a concerted, strategic focus organizations will still be looking at people in isolation of technology and struggling to win the battle for competitive advantage. There are many advantages to be had from viewing people as (or in ways similar to) technology. Some of the benefits include:

1. An end to debate regarding the value of people versus technology in the workplace;
2. An ability to leverage the combined strength of the blend of people and technology in the workplace;
3. Better team development and alignment based on the values that people possess;
4. Improved morale as people better understand their value to the organization;
5. Clearer organizational design and change strategies to organizational values;
6. Management intent better aligned with people capacity;
7. Stronger people asset management tied to the balance sheet;
8. Integration of HRD into succession planning rather than replacement planning;
9. HRD intervention into retention strategies;
10. Ability to truly "structure" interviews that are in alignment with people values that are being sought by the organization;
11. Ability to provide specific feedback that is aligned with the value characteristics of the employee; and
12. Training that is truly tied to the needs of the organization's people resources. Hopefully, people with the desire to teach, willingness to teach, and a teachable point of view will prevail.

As long as there is work to do, organizations will continue to try and find the competitive advantage through people, equipment, processes, training, and communication; however, people and technology are complementary to each other and can be understood through the five values to accomplish a perfect blend of development within the workplace. Sometimes it is difficult for organizations to ascertain and value what makes employees more effective and efficient to improve their productivity. This book seeks to help resolve this dilemma. There are limitations to science and technology as there are limitations to people (Lama, 1999).

Smircich (1983) noted that "leadership can best be understood as the management of meaning and the shaping of interpretations". Management intent must be understood so that employees are able to follow their leaders' guidance and achieve or exceed established goals (Peters, 1978; Smircich & Morgan, 1982).

The value creation model is proposed as a significant way to improve the development, effectiveness, welfare, and success of people engaged in the increasingly complex technology environment of the workplace. This is a practical point of view to the effort to understand the

important task of man and machine integrated in operations environments. The focus of this book has necessarily moved over time from 'skilled' workers operating 'dumb' machines to highly trained and educated managers of complex and interactive technologies involving machine, computer, and information systems.

REFERENCES

Alavi, A., & Leidner, D. (2001). Review: Knowledge management and knowledge management systems: Conceptual foundations and research issues. *Management Information Systems Quarterly*, *25*(1), 107–136. doi:10.2307/3250961

Balcazar, F., Hopkins, B. L., & Suarez, Y. (1985). A critical, objective review of performance feedback. *Journal of Organizational Behavior Management*, *7*, 65–89. doi:10.1300/J075v07n03_05

Balzer, W. K., Doherty, M. E., & O'Connor, R. Jr. (1989). Effects of cognitive feedback on performance. *Psychological Bulletin*, *106*, 410–433. doi:10.1037/0033-2909.106.3.410

Banks, C. H. (2009). Critical human performance issues in the United States. In Wang, V. C. X., & King, K. P. (Eds.), *Human performance models revealed in the global context* (pp. 63–80). Charlotte, NC: Information Age Publishing.

Baptiste, I. (2001). Educating lone wolves: Pedagogical implications of human capital theory. *Adult Education Quarterly*, *51*(3), 184–201.

Beckhard, R., & Harris, R. T. (1987). *Organizational transitions: Managing complex change* (2nd ed.). Reading, MA: Addison-Wesley Publishing Company.

Beyer, J. M., & Trice, H. M. (1987). How an organization's rites reveal its culture. *Organizational Dynamics*, *8*(3), 5–24. doi:10.1016/0090-2616(87)90041-6

Biech, E. (2007). *Thriving through change*. Alexandria, VA: ASTD Press.

Bollinger, A. S., & Smith, R. D. (2001). Managing organizational knowledge as a strategic asset. *Journal of Knowledge Management*, *5*(1), 8–18. doi:10.1108/13673270110384365

Braun, N. M. (2004). Critical thinking in the business curriculum. *Journal of Education for Business*, *79*, 232–236.

Brinkerhoff, R. O. (1987). *Achieving results from training*. San Francisco, CA: Jossey-Bass.

Brynjolfsson, E., & McAfee, A. (2011). *Race against the machine: How the digital revolution is accelerating innovation, driving productivity, and irreversibly transforming employment and the economy*. Lexington, MA: Digital Frontier Press.

Burkhardt, M. E., & Brass, D. J. (1990). Changing patterns or patterns of change: The effects of a change in technology on social network structure and power. *Administrative Science Quarterly*, *35*, 104–127. doi:10.2307/2393552

Bushnell, D. S. (1990). Input, process, output: A model for evaluating training. *Training and Development Journal*, *44*(3), 41–43.

Carlisle, L. W. (2002). Knowledge management and training: The value of collaboration. *Performance Improvement*, *41*(4), 37–43. doi:10.1002/pfi.4140410407

Cowen, T. (2011). *The great stagnation: How America ate all the low-hanging fruit of modern history, got sick, and will(eventually) feel better*. New York, NY: Peguin Group Publishing.

Cummings, T. G., & Worley, C. G. (2005). *Organizational development and change* (8th ed.). Mason, OH: South-Western/Thomson.

De Long, D. W., & Fahey, L. (2000). Diagnosing cultural barriers to knowledge management. *The Academy of Management Executive*, *14*(4), 113–127. doi:10.5465/AME.2000.3979820

Ennis, R. H. (1962). A concept of critical thinking. *Harvard Educational Review*, *32*(1), 81–111.

Ennis, R. H. (1989). Critical thinking and subject specificity. *Educational Researcher*, *18*(3), 4–10.

Ford, M. (2009). *The lights in the tunnel: Automation, accelerating technology and the economy of the future*. United States: Acculant Publishing.

Fox, M. F. (2008). Institutional transformation and the advancement of women faculty: The case of academic science and engineering. In Smart, J. C. (Ed.), *Higher education: Handbook of theory and research* (*Vol. 23*, pp. 73–103). New York, NY: Springer. doi:10.1007/978-1-4020-6959-8_3

Galvin, J. C. (1983). What trainers can learn from educators about evaluating management training. *Training and Development Journal*, *37*(8), 52–57.

Gladwell, M. (2009). *What the dog saw: And other adventures*. New York, NY: Little, Brown and Company.

Gold, A. H., Malhotra, A., & Segars, A. H. (2001). Knowledge management: An organizational capabilities perspective. *Journal of Management Information Systems*, *18*(1), 185–214.

Goldstein, I. L. (1980). Training in work organizations. *Annual Review of Psychology*, *31*, 229–272. doi:10.1146/annurev.ps.31.020180.001305

Harrell, A., & Stahl, M. (1986). Additive information processing and the relationship between expectancy of success and motivational force. *Academy of Management Journal*, *29*(2), 424–434. doi:10.2307/256197

Herzberg, F. (1966). *Work and the nature of man*. Cleveland, OH: World.

House, R. J., Shapiro, H. J., & Wahba, M. A. (1974). Expectancy theory as a predictor of work motivation and attitude: A re-evaluation of empirical evidence. *Decision Sciences*, *5*, 581–586. doi:10.1111/j.1540-5915.1974.tb00632.x

Kirkpatrick, D. (1996). Great ideas revisited: Revisiting Kirkpatrick's four-level model. *Training and Development Journal*, *50*(1), 54–57.

Kirkpatrick, D. L. (1967). Evaluation. In Craig, R. L., & Bittle, L. R. (Eds.), *Training and development handbook* (pp. 87–112). New York, NY: McGraw-Hill.

Kirkpatrick, D. L. (1987). Evaluation. In Craig, R. L. (Ed.), *Training and development handbook* (3rd ed., pp. 301–319). New York, NY: McGraw-Hill.

Kirkpatrick, D. L. (1994). *Evaluating training programs: The four levels*. San Francisco, CA: Berrett-Koehler.

Kluger, A. N., & DeNisi, A. (1996). The effects of feedback interventions on performance: A historical review, a meta-analysis, and a preliminary feedback intervention theory. *Psychological Bulletin*, *119*(2), 254–284. doi:10.1037/0033-2909.119.2.254

Kotter, J. P. (1996). *Leading change*. Boston, MA: Harvard University Press.

Lama, D. (1999). *Ethics for the new millennium*. New York, NY: Riverhead Books.

Lee, M. R., & Lan, Y. (2007). From Web 2.0 to conversational knowledge management: Towards collaborative intelligence. *Journal of Entrepreneurship Research*, *2*(2), 47–62.

Levy, F., & Murnane, R. J. (2005). *The new division of labor: How computers are creating the next job market*. Princeton, NJ: Princeton University Press.

Maslow, A. (1987). *Motivation and personality* (3rd ed.). New York, NY: Harper & Row.

McPeck, J. E. (1990). Critical thinking and subject specificity: A reply to Ennis. *Educational Researcher*, *19*(4), 10–12.

Mintzberg, H. (1973). *The nature of managerial work*. New York, NY: Harper-Row.

Olmosk, K. E. (1972). Seven pure strategies of change. In Pfeiffer, J. W., & Jones, J. E. (Eds.), *The 1972 annual handbook for group facilitators*. San Diego, CA: Pfeiffer & Company.

Peters, T. J. (1978). Symbols, patterns and settings: An optimistic case for getting things done. *Organizational Dynamics*, *7*, 3–23. doi:10.1016/0090-2616(78)90035-9

Pfau, B. N., & Kay, I. T. (2002). *The human capital edge: 21 people management practices your company must implement (or avoid) to maximize shareholder value*. New York, NY: McGraw-Hill.

Phillips, J. J. (2003). *Return on investment in training and performance improvement programs* (2nd ed.). Burlington, MA: Elsevier Science.

Pondy, L. R., & Boje, D. M. (1975). *Bringing mind back in: Paradigm development as a frontier problem in organization theory*. Paper presented at the Annual Meetings of the American Sociological Association, San Francisco, CA.

Pondy, L. R., & Boje, D. M. (1981). Bringing mind back in. In Evan, W. (Ed.), *Frontiers in organization and management* (pp. 83–101). New York, NY: Praeger.

Ramlall, S. (2004). A review of employee motivation theories and their implications for employee retention within organizations. *Journal of American Academy of Business, Cambridge*, *5*(1/2), 52–63.

Ringo, T., & McDonald, R. (2008). *(2007). Unlocking the DNA of the adaptable workforce: The global human capital study*. Somers, NY: IBM Global Services.

Ruggles, R. (1998). The state of the notion: Knowledge management in practice. *California Management Review*, *40*(3), 80–89.

Sackett, P. R., & Mullen, E. J. (1993). Beyond formal experimental design: Towards an expanded view of the training evaluation process. *Personnel Psychology*, *46*, 613–615. doi:10.1111/j.1744-6570.1993.tb00887.x

Smircich, L. (1983). Concepts of culture and organizational analysis. *Administrative Science Quarterly*, *28*, 339–358. doi:10.2307/2392246

Smircich, L., & Morgan, G. (1982). Leadership: The management of meaning. *The Journal of Applied Behavioral Science*, *18*(3), 257–273. doi:10.1177/002188638201800303

Steers, R. M., Mowday, R. T., & Shapiro, D. L. (2004). The future of work motivation theory. *Academy of Management Review*, *29*(3), 379–387.

Steers, R. M., & Porter, L. W. (1979). *Motivation and work behavior* (2nd ed.). New York, NY: McGraw-Hill Book Company.

Trice, H. M., & Beyer, J. M. (1984). Studying organizational cultures through rites and ceremonials. *Academy of Management Review*, *9*, 653–669.

Wang, M. (2011). Integrating organizational, social, and individual perspectives in Web 2.0-based workplace e-learning. *Information Systems Frontiers*, *13*, 191–205. doi:10.1007/s10796-009-9191-y

Warr, P., Bird, M., & Rackham, N. (1970). *Evaluation of management training*. London, UK: Gower Press.

Weiner, B. (1972). *Theories of motivation: From mechanism to cognition*. Chicago, IL: Markham.

Werner, J. M., & DeSimone, R. L. (2012). *Human resource development* (6th ed.). Mason, OH: South-Western.

Whitman, M. (2010). *The power of many: Values for success in business and in life*. New York, NY: Three Rivers Press.

Wiener, Y. (1982). Commitment in organizations: A normative view. *Academy of Management Review*, *7*, 418–428.

Wiener, Y. (1988). Forms of value systems: A focus on organizational effectiveness and cultural change and maintenance. *Academy of Management Review*, *13*, 534–545.

Wittrock, M. C. (1978). The cognitive movement in instruction. *Educational Psychologist*, *13*(1), 15–29. doi:10.1080/00461527809529192

Wlodkowski, R. J., & Ginsberg, M. B. (1995). *Diversity and motivation: Culturally responsive teaching*. San Francisco, CA: Jossey-Bass.

Compilation of References

Adams, J. S. (1963). Toward an understanding of inequity. *Journal of Abnormal and Social Psychology*, *67*, 422–436. doi:10.1037/h0040968

Adams, J. S. (1965). Inequity in social exchange. *Advances in Experimental Social Psychology*, *2*, 267–299. doi:10.1016/S0065-2601(08)60108-2

Aguinis, H. (2009). *Performance management* (2nd ed.). Upper Saddle River, NJ: Pearson Prentice Hall.

Aguinis, H., & Kraiger, K. (2009). Benefits of training and development for individuals and teams, organizations, and society. *Annual Review of Psychology*, *60*, 451–474. doi:10.1146/annurev.psych.60.110707.163505

Aguinis, H., & Pierce, C. A. (2008). Enhancing the relevance of organizational behavior by embracing performance management research. *Journal of Organizational Behavior*, *29*, 139–145. doi:10.1002/job.493

Alavi, A., & Leidner, D. (2001). Review: Knowledge management and knowledge management systems: Conceptual foundations and research issues. *Management Information Systems Quarterly*, *25*(1), 107–136. doi:10.2307/3250961

Anand, V., Glick, W. H., & Manz, C. C. (2002). Thriving on the knowledge of outsiders: Tapping organizational social capital. *The Academy of Management Executive*, *19*(1), 87–101. doi:10.5465/AME.2002.6640198

Argyris, C. (1985). Making knowledge more relevant to practice: Maps for action. In Lawler, E. E. (Eds.), *Doing research that is useful for theory and practice* (pp. 29–125). San Francisco, CA: Jossey-Bass.

Argyris, C., & Schön, D. (1978). *Organizational learning*. New York, NY: Addison-Wesley.

Arthur, J. B. (1994). Effects of human resource systems on manufacturing performance and turnover. *Academy of Management Journal*, *37*, 670–687. doi:10.2307/256705

Arvey, R. D., & Murphy, K. R. (1998). Performance evaluation in work settings. *Annual Review of Psychology*, *49*, 141–168. doi:10.1146/annurev.psych.49.1.141

Ash, M. K. (1981). *Mary Kay*. New York, NY: Harper and Row.

Ausubel, D. (1963). *The psychology of meaningful verbal learning*. New York, NY: Holt, Rinehart & Winston.

Ausubel, D. P. (1960). The use of advance organizers in the learning and retention of meaningful verbal material. *Journal of Educational Psychology*, *51*, 267–272. doi:10.1037/h0046669

Ausubel, D. P., & Youseff, M. (1963). Role of discriminability in meaningful parallel learning. *Journal of Educational Psychology*, *54*, 331–336. doi:10.1037/h0042767

Avery, D. R. (2011). Support for diversity in organizations: A theoretical exploration of its origins and offshoots. *Organizational Psychology Review*, *1*, 239–256. doi:10.1177/2041386611402115

Babbage, C. (1835). *On the economy of machinery and manufacturers*. London, UK: Frank Cass & Co.

Badawy, M. K. (1995). *Developing managerial skills in engineers and scientists: Succeeding as a technical manager* (2nd ed.). New York, NY: Van Nostrand Reinhold.

Baird, L., & Meshoulam, I. (1988). Managing two fits of strategic human resource management. *Academy of Management Review*, *13*, 116–128.

Baker, S. (2008a, September 8). Management by the numbers. *Business Week*, pp. 32-36.

Baker, S. (2008b). *The numerati*. New York, NY: Houghton Mifflin.

Balcazar, F., Hopkins, B. L., & Suarez, Y. (1985). A critical, objective review of performance feedback. *Journal of Organizational Behavior Management*, *7*, 65–89. doi:10.1300/J075v07n03_05

Balzer, W. K., Doherty, M. E., & O'Connor, R. Jr. (1989). Effects of cognitive feedback on performance. *Psychological Bulletin*, *106*, 410–433. doi:10.1037/0033-2909.106.3.410

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, *84*, 191–215. doi:10.1037/0033-295X.84.2.191

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. New York, NY: Prentice Hall.

Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: W. H. Freeman.

Bandura, A., Ross, D., & Ross, S. A. (1961). Transmission of aggression through imitation of aggressive models. *Journal of Abnormal and Social Psychology*, *63*, 575–582. doi:10.1037/h0045925

Banks, C. H. (2002). A descriptive analysis of the perceived effectiveness of Virginia tech's faculty development institute. *Dissertation Abstracts International, 64*(08). (UMI No. 3102585)

Banks, C. H., & Nafukho, F. M. (2008). Career transitions across and within organizations: implications for human resource development. In T.M. Chermack & J. Storberg-Walker (Eds.), *2008 Academy of Human Resource Development Annual Research Conference Proceedings,* (pp. 1096- 1102). Bowling Green, OH: Academy of Human Resource Development.

Banks, C. G., & Murphy, K. R. (1985). Toward narrowing the research-practice gap in performance appraisal. *Personnel Psychology*, *38*, 335–345. doi:10.1111/j.1744-6570.1985.tb00551.x

Banks, C. H. (2006). Career planning: Toward an inclusive model. In Karsten, M. (Ed.), *Gender, race and ethnicity in the workplace* (*Vol. 3*, pp. 99–116). Westport, CT: Greenwood. Publishing Group, Inc.

Banks, C. H. (2009). Critical human performance issues in the United States. In Wang, V. C. X., & King, K. P. (Eds.), *Human performance models revealed in the global context* (pp. 63–80). Charlotte, NC: Information Age Publishing.

Baptiste, I. (2001). Educating lone wolves: Pedagogical implications of human capital theory. *Adult Education Quarterly*, *51*(3), 184–201.

Barnard, C. (1938). *The functions of the executive*. Cambridge, MA: Harvard UniversityPress.

Bass, B. M. (1988). The inspirational process of leadership. *Journal of Management Development*, *7*, 21–31. doi:10.1108/eb051688

Bass, B. M. (1999). Two decades of research and development in transformational leadership. *European Journal of Work and Organizational Psychology*, *8*(1), 9–32. doi:10.1080/135943299398410

Bass, B. M., & Vaughn, J. A. (1966). *Training in industry: The management of learning*. Belmont, CA: Brooks/Cole.

Bassi, L., Cheney, S., & Lewis, E. (1998). Trends in workplace learning: Supply and demand in interesting times. *Training & Development*, *52*(11), 51–75.

Baumgartel, H., & Jeanpeiere, F. (1972). Applying new knowledge in the back home setting: A study of Indian managers' adoptive efforts. *The Journal of Applied Behavioral Science*, *8*, 674–694. doi:10.1177/002188637200800603

Becker, B. E., Huselid, M. A., & Beatty, R. W. (2009). *The differentiated workforce: Transforming talent into strategic impact*. Boston, MA: Harvard Business Press.

Becker, G. S. (1964). *Human capital: A theoretical and empirical analysis, with special reference to education*. Chicago, IL: University of Chicago Press.

Becker, G. S. (1993). *Human capital: A theoretical and empirical analysis, with special reference to education* (3rd ed.). Chicago, IL: University of Chicago Press.

Beckhard, R., & Harris, R. T. (1987). *Organizational transitions: Managing complex change* (2nd ed.). Reading, MA: Addison-Wesley Publishing Company.

Beer, M. (2001). Why management research findings are unimplementable: An action science perspective. *Reflections: The SoL Journal*, *2*(3), 58–65. doi:10.1162/152417301570383

Belasco, J. A., & Stayer, R. C. (1993). *Flight of the buffalo: Soaring to excellence, learning to let employees lead*. New York, NY: Warner Books, Inc.

Bem, D. J. (1972). Self-perception theory. In Berkowitz, L. (Ed.), *Advances in experimental and social psychology* (*Vol. 6*, pp. 1–62). New York, NY: Academic Press.

Benson, G. S., Feingold, D., & Mohrman, S. A. (2004). You paid for the skills, now keep them: Tuition reimbursement and voluntary turnover. *Academy of Management Journal*, *47*, 315–331. doi:10.2307/20159584

Berger, N. O., Kehrhahn, M. T., & Summerville, M. (2004). Research to practice: Throwing a rope across the divide. *Human Resource Development International*, *7*(3), 403–409. doi:10.1080/1367886042000246003

Bernardin, H. J., & Buckley, M. R. (1981). Strategies in rater training. *Academy of Management Review*, *6*(2), 205–212.

Bernardin, H. J., Buckley, M. R., Tyler, C. L., & Weise, D. S. (2000). A reconsideration of strategies in rater training. *Research in Personnel and Human Resources Management*, *18*, 221–274.

Bernardin, H. J., & Villanova, P. (1986). Performance appraisal. In Locke, E. A. (Ed.), *Generalizing from laboratory to field settings* (pp. 43–62). Lexington, MA: Lexington Books.

Betz, F. (1993). *Strategic technology management*. New York, NY: McGraw-Hill.

Beyer, J. M., & Trice, H. M. (1987). How an organization's rites reveal its culture. *Organizational Dynamics*, *8*(3), 5–24. doi:10.1016/0090-2616(87)90041-6

Bhattacharya, M., & Wright, P. M. (2005). Managing human assets in an uncertain world: Applying real world options theory to HRM. *International Journal of Human Resource Management*, *16*, 929–948. doi:10.1080/09585190500120574

Biech, E. (2007). *Thriving through change*. Alexandria, VA: ASTD Press.

Bingham, K., Gewin, A., Hu, C., Thomas, K., & Yanchus, N. (2005). The roles of protégé race, gender, and proactive socialization attempts on peer monitoring. *Advances in Developing Human Resources*, *7*(4), 540–555. doi:10.1177/1523422305279681

Birati, A., & Tziner, A. (2000). Cost-benefit analysis of organizational interventions: The case of downsizing. *Journal of Business and Psychology*, *15*, 277–286. doi:10.1023/A:1007894018069

Bloom, B. (1968). Learning for mastery. *Evaluation Comment*, *1*(2), 1–12.

Bloom, B. (1974). Time and learning. *The American Psychologist*, 682–688. doi:10.1037/h0037632

Böhm-Bawerk, E. V., Hilferding, R., & Sweezy, P. M. (1984). *Karl Marx and the close of his system*. Philadelphia, PA: Orion Editions.

Bollinger, A. S., & Smith, R. D. (2001). Managing organizational knowledge as a strategic asset. *Journal of Knowledge Management*, *5*(1), 8–18. doi:10.1108/13673270110384365

Bolman, L. G., & Deal, T. E. (2008). *Reframing organizations: Artistry, choice, and leadership* (4th ed.). San Francisco, CA: Jossey-Bass.

Bossert, S., Dwyer, D., Rowan, B., & Lee, G. (1982). The instructional management role of the principal. *Educational Administration Quarterly*, *18*(3), 34–64. doi:10.1177/0013161X82018003004

Bossidy, L. (2001). The job no CEO should delegate. *Harvard Business Review*, *79*(3), 46–49.

Boudreaux, M. A. (2001). Career development: What is its role in human resource development? In O. A. Aliaga (Ed.), *Academy of HRD 2001 Conference Proceedings* (pp. 805-812). Bowling Green, OH: Academy of Human Resource Development.

Bowden, G. T. (1947). The adaptive capacity of workers. *Harvard Business Review*, *25*, 527–542.

Bower, M. (1966). *The will to manage: Corporate success through programmed management*. New York, NY: McGraw-Hill.

Brache, A. P. (2002). *How organizations work: Taking a holistic approach to enterprise health*. New York, NY: John Wiley & Sons, Inc.

Brandenburg, D. C., & Ellinger, A. D. (2003). The future: Just-in-time learning expectations and potential implications for human resource development. *Advances in Developing Human Resources*, *5*(3), 308–320. doi:10.1177/1523422303254629

Brass, D. J., & Burkhardt, M. E. (1993). Potential power and power use: An investigation of structure and behavior. *Academy of Management Journal*, *36*(3), 441–470. doi:10.2307/256588

Braun, N. M. (2004). Critical thinking in the business curriculum. *Journal of Education for Business*, *79*, 232–236.

Brinkerhoff, R. O. (1987). *Achieving results from training*. San Francisco, CA: Jossey-Bass.

Browell, S. (2000). Staff development and professional education: A cooperative model. *Journal of Workplace Learning: Employee Counseling Today*, *12*, 57–65.

Bruner, J. S., Goodnow, J. J., & Austin, G. A. (1956). *A study of thinking*. New York, NY: Wiley.

Bruning, R. H., Schrawg, J., & Norby, M. M. (2011). *Cognitive psychology and instruction* (5th ed.). Boston, MA: Pearson.

Brynjolfsson, E., & McAfee, A. (2011). *Race against the machine: How the digital revolution is accelerating innovation, driving productivity, and irreversibly transforming employment and the economy*. Lexington, MA: Digital Frontier Press.

Buchholz, R. A. (1977). The belief structure of managers relative to work concepts measured by a factor analytic model. *Personnel Psychology*, *30*, 567–587. doi:10.1111/j.1744-6570.1977.tb02328.x

Buch, K. (1992). How does downsizing affect employee involvement? *Journal for Quality and Participation*, *15*, 74–77.

Burack, E. H. (1999). Bridging research to corporate application. In Larwood, L., & Gattiker, U. E. (Eds.), *Impact analysis: How reach can enter application and make a difference* (pp. 17–46). Mahwah, NJ: Erlbaum.

Burkhardt, M. E., & Brass, D. J. (1990). Changing patterns or patterns of change: The effects of a change in technology on social network structure and power. *Administrative Science Quarterly*, *35*, 104–127. doi:10.2307/2393552

Bushnell, D. S. (1990). Input, process, output: A model for evaluating training. *Training and Development Journal*, *44*(3), 41–43.

Bush, P. D. (1987). The theory of institutional change. *Journal of Economic Issues*, *21*, 1075–1116.

Camerer, C., & Vepsalainen, A. (1988). The economic efficiency of corporate culture. *Strategic Management Journal*, *9*(Special Issue), 115–126. doi:10.1002/smj.4250090712

Cameron, K. S. (1994). Strategies for successful organizational downsizing. *Human Resource Management*, *33*(2), 189–211. doi:10.1002/hrm.3930330204

Campbell, J. P. (1990). Modeling the performance prediction problem in industrial and organizational psychology. In Dunnette, M. D., & Hough, L. M. (Eds.), *Handbook of industrial and organizational psychology* (2nd ed., *Vol. 1*, pp. 687–732). Palo Alto, CA: Consulting Psychologists Press.

Caplow, T. (1954). *The sociology of work*. New York, NY: McGraw-Hill Book Company.

Carlisle, L. W. (2002). Knowledge management and training: The value of collaboration. *Performance Improvement*, *41*(4), 37–43. doi:10.1002/pfi.4140410407

Carrell, M., Mann, E., & Honeycutt-Sigler, T. (2006). Defining workforce diversity programs and practices in organizations: A longitudinal study. *Labor Law Journal*, *57*(1), 5–12.

Carrig, K., & Wright, P. M. (2006). *Building profit through building people: Making your workforce the strongest link in the value-profit chain*. Alexandria, VA: Society for Human Resource Management.

Carr, N. G. (2003). IT doesn't matter. *Harvard Business Review*, *81*(5), 41–49.

Cascio, W. F., & Aguinis, H. (2005). *Applied psychology in human resource management* (6th ed.). Upper Saddle River, NJ: Pearson Prentice Hall.

Champy, J., & Hammer, M. (1993). *Reengineering the corporation*. New York, NY: HarperBusiness.

Chase, R. B., Jacobs, F. R., & Aquilano, N. J. (2006). *Operations management for competitive advantage* (11th ed.). New York, NY: McGraw-Hill/Irwin.

Chomsky, N. (1959). A review of B. F. Skinner's "verbal behavior.". *Language*, *35*(1), 26–58. doi:10.2307/411334

Christensen, K. E., & Staines, G. L. (1990). Flextime: A viable solution to work/family conflict? *Journal of Family Issues*, *11*, 455–476. doi:10.1177/019251390011004007

Clay, J. (2006). The deep difference between labor and use-value. *Science and Society*, *70*, 375–378. doi:10.1521/siso.70.3.375

Cleveland, J. N., & Murphy, K. R. (1992). Analyzing performance appraisal as goal-directed behavior. *Research in Personnel and Human Resources Management*, *10*, 121–185.

Cohen, W. M., & Levinthal, D. A. (1990). Absorptive capacity: A new perspective on learning and innovation. *Administrative Science Quarterly*, *35*(1), 128–152. doi:10.2307/2393553

Collins, J. A., Greer, J. E., Kumar, V. S., McCalla, G. I., Meagher, P., & Tkatch, R. (1997). Inspectable user models for just-in-time workplace training. In A. Jameson, C. Paris, & C. Tasso (Eds.), *User Modeling: Proceedings of the Sixth International Conference UM97* (pp. 327-337). Vienna, Austria: Springer Wien.

Collins, J. (2001). *Good to great*. New York, NY: HarperCollins.

Collins, J., & Porras, J. (1994). *Built to last*. New York, NY: HarperBusiness.

Cowen, T. (2011). *The great stagnation: How America ate all the low-hanging fruit of modern history, got sick, and will(eventually) feel better*. New York, NY: Peguin Group Publishing.

Crampton, S. M., Hodge, J. W., Mishra, J. M., & Price, S. (1995). Stress and stress management. *SAM Advanced Management Journal*, *60*(3), 10–29.

Cummings, T. G., & Worley, C. G. (2005). *Organizational development and change* (8th ed.). Mason, OH: South-Western/Thomson.

Cyert, R. M., Dill, W. R., & March, J. G. (1958). The role of expectations in business decision making. *Administrative Science Quarterly*, *3*, 307–340. doi:10.2307/2390716

Cyert, R. M., & March, J. G. (1963). *A behavioral theory of the firm*. New York, NY: Prentice Hall.

D'Netto, B., & Sohal, A. (1999). Human resource practices and workforce diversity: An empirical assessment. *International Journal of Manpower*, *20*, 530–547. doi:10.1108/01437729910302723

Dalziel, M. M., & Schoonover, S. C. (1988). *Changing ways: A practical tool for implementing change within organizations*. New York, NY: AMACOM.

Davis, L., & North, D. (1970). Institutional change and American economic growth: A first step towards a theory of institutional innovation. *The Journal of Economic History*, *30*(1), 131–149.

Day, D. V., & Sulsky, L. M. (1995). Effects of frame-of-reference training and information configuration on memory organization and rating accuracy. *The Journal of Applied Psychology*, *80*, 158–167. doi:10.1037/0021-9010.80.1.158

De Long, D. W., & Fahey, L. (2000). Diagnosing cultural barriers to knowledge management. *The Academy of Management Executive*, *14*(4), 113–127. doi:10.5465/AME.2000.3979820

Deal, T., & Kennedy, A. (1984). *Corporate cultures*. Reading, MA: Addison-Wesley.

Deal, T., & Kennedy, A. (1984). *Corporate cultures*. Reading, MA: Addison-Wesley.

Delery, J. E. (1998). Issues of fit in strategic human resource management: Implications for research. *Human Resource Management Review*, *8*, 289–309. doi:10.1016/S1053-4822(98)90006-7

Deming, W. E. (1982). *Out of the crisis*. Bambridge, MA: MIT Center for Advanced Engineering Study.

Denison, D. R. (1996). What is the difference between organizational culture and organizational climate? A native's point of view on a decade of paradigm wars. *Academy of Management Review*, *21*, 619–654.

Dewey, J. (1910). *How we think*. Boston, MA: D. C. Heath & Co.doi:10.1037/10903-000

Di Vesta, F. J. (1974). Cognitive structures and symbolic processes. *Teachers College Record*, *75*, 357–370.

Disselkamp, L. (2007). *Working the clock: How to win the race for productivity and profits with workforce management technology*. Richmond, VA: The Oaklea Press.

Disselkamp, L. (2009). *No boundaries: How to use time and labor management technology to win the race for profits and productivity*. Hoboken, NJ: John Wiley & Sons, Inc.

Dohmann, C. W. (1970). Teachers' perception toward innovations and change. *UMI Dissertation Services, 70*(25), 019. (University Microfilms No, 70-25, 019)

Driskell, J. E., Johnston, J. H., & Salas, E. (2001). Does stress training generalize to novel settings? *Human Factors: The Journal of the Human Factors and Ergonomics Society*, *43*, 99–110. doi:10.1518/001872001775992471

Drucker, P. F. (1954). *The practice of management*. New York, NY: Harper.

Drucker, P. F. (1969). *The age of discontinuity*. Woburn, MA: Butterworth-Heinemann.

Drucker, P. F. (1992). *Managing for the future*. Oxford, UK: Butterworth Heinemann.

Drucker, P. F. (1994). The age of social transformation. *Atlantic Monthly*, *274*(5), 53–80.

Drucker, P. F. (1999). Knowledge-worker productivity: The biggest challenge. *California Management Review*, *41*(2), 79–94.

Drucker, P. F. (2002). *Managing in the next society*. New York, NY: Saint Martin's Press.

Drucker, P. F. (2008). *Management* (rev. ed.). New York, NY: HarperCollins.

Egan, T. M. (2001). *Organization development: An examination of definitions and dependent variables*. St. Paul, MN: Human Resource Development Research Center, University of Minnesota.

Egan, T. M. (2002). Organization development: An examination of definitions and dependent variables. *Organization Development Journal*, *20*(2), 59–70.

Ennis, R. H. (1962). A concept of critical thinking. *Harvard Educational Review*, *32*(1), 81–111.

Ennis, R. H. (1989). Critical thinking and subject specificity. *Educational Researcher*, *18*(3), 4–10.

Erickson, T. (2008). Plugged. In *The generation Y guide to thriving at work*. Boston, MA: Harvard Business School Press.

Espedal, B. (2005). Management development: Using internal or external resources in developing core competence. *Human Resource Development Review*, *4*(2), 136–158. doi:10.1177/1534484305276217

Ezra, M., & Deckman, M. (1996). Balancing work and family responsibilities: Flextime and child care in the federal government. *Public Administration Review*, *56*, 174–179. doi:10.2307/977205

Figueroa, R. A. (1999). Modelling the value of location in Regina using GIS and spatial autocorrelation statistics. *Assessment Journal*, *6*(6), 29–37.

Folger, R., & Greenberg, J. (1985). Procedural justice: An interpretive analysis of personnel systems. *Research in Personnel and Human Resource Management*, *3*, 141–183.

Ford, M. (2009). *The lights in the tunnel: Automation, accelerating technology and the economy of the future*. United States: Acculant Publishing.

Forman, D. C. (2003). Reinventing the training business. *Performance Improvement*, *42*(1), 40–44. doi:10.1002/pfi.4930420109

Fox, A. (1974). *Beyond contract: Work, power, and trust relations*. London, England: Faber.

Fox, M. F. (2008). Institutional transformation and the advancement of women faculty: The case of academic science and engineering. In Smart, J. C. (Ed.), *Higher education: Handbook of theory and research* (*Vol. 23*, pp. 73–103). New York, NY: Springer. doi:10.1007/978-1-4020-6959-8_3

Fox, R. (2001). Constructivism examined. *Oxford Review of Education*, *27*(1), 23–35. doi:10.1080/03054980125310

Fraser, J. A. (2001). *White-collar sweatshop*. New York, NY: W. W. Norton & Co.

Freedman, S. M. (1978). Some determinants of compensation decisions. *Academy of Management Journal*, *21*, 397–409. doi:10.2307/255722

Freidman, M. (1970, September 13). The social responsibility of business is to increase its profits. *The New York Times Magazine,* 32-33.

Friedland, W. H. (1964). For a sociological concept of charisma. *Social Forces*, *43*, 18–26.

Friedman, M. (1970, September 13). The social responsibility of business is to increase its profits. *The New York Times Magazine.*

Friedman, M. (1994). *Money mischief: Episodes in monetary history*. Orlando, FL: Harcourt Brace.

Friedman, T. L., & Mandelbaum, M. (2011). *That used to be us: How America fell behind in the world it invented and how we can come back*. New York, NY: Farrar, Strauss, and Giroux.

Fried, Y., & Ferris, G. R. (1987). The validity of the job characteristics model: A review and meta-analysis. *Personnel Psychology*, *40*, 287–322. doi:10.1111/j.1744-6570.1987.tb00605.x

Fromm, E. (1989). *Marx's concept of man*. New York, NY: The Continuum Publishing Company.

Fulkerson, J. R., & Schuler, R. S. (1992). Managing worldwide diversity at Pepsi-Cola International. In Jackson, S. E. (Ed.), *Diversity in the workplace: Human resources initiatives, society for industrial and organisational psychology (The Professional Practice Series)*. New York, NY: Guildford Press.

Gagné, R. M. (1962). Military training and principles of learning. *The American Psychologist*, *17*, 83–91. doi:10.1037/h0048613

Galbraith, J. R., & Lawler, E. E. (1993). *Organizing for the future: The new logic for managing complex organizations*. New York, NY: Jossey-Bass.

Gale, B. T. (1980). Can more capital buy higher productivity? *Harvard Business Review*, *58*(4), 78–86.

Gallimore, P., Fletcher, M., & Carter, M. (1996). Modelling the influence of location on value. *Journal of Property Valuation Investment*, *14*(1), 6–19. doi:10.1108/14635789610107444

Gall, M. D., Gall, J. P., & Borg, W. R. (2007). *Educational research: An introduction* (8th ed.). Boston, MA: Pearson.

Galvin, J. C. (1983). What trainers can learn from educators about evaluating management training. *Training and Development Journal*, *37*(8), 52–57.

George, G., Sleeth, R., & Siders, M. (1999). Organizing culture: Leader roles, behaviors, and reinforcement mechanisms. *Journal of Business and Psychology*, *13*, 545–560. doi:10.1023/A:1022923005165

Gephart, M. A., Marsick, V. J., Van Buren, M. E., & Spiro, M. S. (1996). Learning organizations come alive. *Training & Development*, *50*, 56–66.

Ghiselli, E. E., & Brown, C. W. (1948). *Personnel and industrial psychology*. New York, NY: McGraw-Hill.

Gilley, J. W., & Maycunich, A. (2000). *Organizational learning, performance, and change: An introduction to strategic human resource development*. New York, NY: Perseus Publishing.

Githens, R. P., Dirani, K., Gitonga, J. W., & Teng, Y. T. (2008). Technology-related research in HRD publications: An analysis of content and metaperspectives from 2000 to 2006. *Human Resource Development Quarterly*, *19*(3), 191–215. doi:10.1002/hrdq.1236

Gladwell, M. (2009). *What the dog saw: And other adventures*. New York, NY: Little, Brown and Company.

Goffman, E. (1959). *The presentation of self in everyday life*. New York, NY: Doubleday.

Gold, A. H., Malhotra, A., & Segars, A. H. (2001). Knowledge management: An organizational capabilities perspective. *Journal of Management Information Systems*, *18*(1), 185–214.

Goldstein, I. L. (1974). *Training: Program development and evaluation*. Monterey, CA: Brooks/Cole.

Goldstein, I. L. (1980). Training in work organizations. *Annual Review of Psychology*, *31*, 229–272. doi:10.1146/annurev.ps.31.020180.001305

Gordon, G., & DiTomaso, N. (1992). Predicting corporate performance from organizational culture. *Journal of Management Studies*, *29*, 783–798. doi:10.1111/j.1467-6486.1992.tb00689.x

Gowler, D. (1969). Determinants of the supply of labour to the firm. *Journal of Management Studies*, *6*, 73–95. doi:10.1111/j.1467-6486.1969.tb00582.x

Graham, J. W. (1991). Servant-leadership in organizations: Inspirational and moral. *The Leadership Quarterly*, *2*(2), 105–119. doi:10.1016/1048-9843(91)90025-W

Gredler, M. E. (2009). *Learning and instruction: Theory into practice* (6th ed.). Upper Saddle River, NJ: Pearson Education, Inc.

Guion, R. (1973). A note on organizational climate. *Organizational Behavior and Human Performance*, *9*, 120–125. doi:10.1016/0030-5073(73)90041-X

Hackman, J. R., & Oldham, G. R. (1974). The job diagnostic survey: An instrument for the diagnosis of jobs and the evaluation of job redesign projects. *JSAS Catalog of Selected Documents in Psychology*, *4*, 148.

Hackman, J. R., & Oldham, G. R. (1975). Development of the job diagnostic survey. *The Journal of Applied Psychology*, *60*, 159–170. doi:10.1037/h0076546

Hall, D. T. (1990). Telecommuting and the management of work-home boundaries. In *Paradigms revised: The annual review of communications in society-1989* (pp. 177–208). Nashville, TN: Institute for Information Studies.

Hall, D. T., & Richter, J. (1988). Balancing work life and home life: What can organizations do to help? *The Academy of Management Executive*, *3*, 213–223. doi:10.5465/AME.1988.4277258

Halloran, J. D. (1967). *Attitude formation and change*. Leicester, UK: Leicester University Press.

Hall, R. E., & Jones, C. I. (1999). Why do some countries produce so much more output per worker than others? *The Quarterly Journal of Economics*, *114*(1), 83–116. doi:10.1162/003355399555954

Hamel, G., & Prahalad, C. K. (1994). *Competing for the future*. Boston, MA: Harvard Business School Press.

Hamlin, R. G. (2002). In support of evidence-based management and research-informed HRD through HRD professional partnerships: An empirical and comparative study. *Human Resource Development International*, *5*, 467–491. doi:10.1080/13678860210122643

Hamlin, R. G. (2002). In support of evidence-based management and research-informed HRD through HRD professional partnerships: An empirical and comparative study. *Human Resource Development International*, *5*, 467–491. doi:10.1080/13678860210122643

Hamrick, D. C., & MacMillan, I. C. (1984). SMR forum: Asset parsimony- Managing assets to manage profits. *Sloan Management Review*, *25*(2), 67–74.

Hanna, D. P. (1988). *Designing organizations for high performance.* Reading, MA: Addison-Wesley. Heck, R. H., Larsen, T. J., & Marcoulides, G. A. (1990). Instructional leadership and school achievement: Validation of a causal model. *Educational Administration Quarterly*, *26*(2), 94–125.

Harrell, A., & Stahl, M. (1986). Additive information processing and the relationship between expectancy of success and motivational force. *Academy of Management Journal*, *29*(2), 424–434. doi:10.2307/256197

Harris, M. M. (1994). Rater motivation in the performance appraisal context: A theoretical framework. *Journal of Management*, *20*, 737–756. doi:10.1016/0149-2063(94)90028-0

Hatch, N. W., & Dyer, J. H. (2004). Human capital and learning as source of sustainable competitive advantage. *Strategic Management Journal*, *25*, 1155–1178. doi:10.1002/smj.421

Hax, A. C., & Majluf, N. S. (1996). *The strategy concept and process: A pragmatic approach* (2nd ed.). Upper Saddle River, NJ: Prentice Hall.

Hayes, K. H. (2000). *Managing career transitions: Your career as a work in progress* (2nd ed.). Upper Saddle River, NJ: Prentice Hall.

Hellriegel, D., & Slocum, J. W. Jr. (1974). Organizational climate: Measures, research, and contingencies. *Academy of Management Journal*, *17*, 255–280. doi:10.2307/254979

Heneson, M. E., Morris, L. L., & Fitz-Gibbon, C. T. (1978). *How to measure attitudes*. Beverly Hills, CA: Sage.

Herzberg, F. (1966). *Work and the nature of man*. Cleveland, OH: World.

Hinings, C. R., & Greenwood, R. (2002). Disconnects and consequences in organization theory? *Administrative Science Quarterly*, *47*, 411–421. doi:10.2307/3094844

Hogan, W. T. (1987). *Minimills and integrated mills: A comparison of steelmaking in the United States*. Lexington, MA: Heath.

Holland, J. L. (1973). *Making vocational choices: A theory of careers*. Upper Saddle River, NJ: Prentice-Hall.

Horniman, A. B. (2004). Leading: A performing learning art. In Goldsmith, M., Morgan, H. J., & Ogg, A. J. (Eds.), *Leading organizational learning: Harnessing the power of knowledge*. San Francisco, CA: Jossey-Bass.

Hoskisson, R. E., Hitt, M. A., Ireland, R. D., & Harrison, J. S. (2008). *Competing for advantage* (2nd ed.). Mason, OH: South-Western.

Hounshell, D. A. (1984). *From the American system to mass production, 1800-1932: The development of manufacturing technology in the United States*. Baltimore, MD: Johns Hopkins University Press.

House, R. J. (1977). A 1976 theory of charismatic leadership. In Hunt, J. G., & Larson, L. L. (Eds.), *Leadership: The cutting edge* (pp. 189–273). Carbondale, IL: Southern Illinois University Press.

House, R. J., Shapiro, H. J., & Wahba, M. A. (1974). Expectancy theory as a predictor of work motivation and attitude: A re-evaluation of empirical evidence. *Decision Sciences*, *5*, 581–586. doi:10.1111/j.1540-5915.1974.tb00632.x

Hughes, C. (2010). "People as technology" conceptual model: Towards a new value creation paradigm for strategic human resource development. *Human Resource Development Review*, *9*(1), 48–71. doi:10.1177/1534484309353561

Hughes, C., & Gosney, M. W. (2012). People, technology and human resource development (HRD) philosophy. In Wang, V. C. X. (Ed.), *Encyclopedia of e-leadership, counseling and training* (pp. 759–771). Hershey, PA: IGI Global. doi:10.4018/978-1-61350-068-2.ch055

Hughes, C., & Stephens, D. (in press). Leveraging workforce diversity through a career development paradigm shift. In Scott, C., & Byrd, M. (Eds.), *Handbook of research on workforce diversity in a global society: Technologies and concepts*. Hershey, PA: IGI Global.

Hughes, C., Wang, J., Zheng, W., & McLean, L. (2010). Implementation concerns of scholar-practitioners: A pilot study of the link between research and practice. *International Journal of Asian Business and Information Management*, *1*(2), 32–46. doi:10.4018/jabim.2010040104

Hunter, L., Bernhardt, A., Hughes, K., & Skuratowicz, E. (2001). It's not just the ATMs: Technology, firm strategies, jobs, and earnings in retail banking. *Industrial & Labor Relations Review*, *54*, 402–424. doi:10.2307/2696101

Huselid, M. A. (1995). The impact of human resource management practices on turnover, productivity, and corporate financial performance. *Academy of Management Journal*, *38*, 635–872. doi:10.2307/256741

Huselid, M. A., Jackson, S. E., & Schuler, R. S. (1997). Technical and strategic human resource management effectiveness as determinants of firm performance. *Academy of Management Journal*, *40*(1), 171–188. doi:10.2307/257025

Irving, P. G., & Meyer, J. P. (1995). On using direct measures of met expectations: A methological note. *Journal of Management*, *21*, 1159–1176. doi:10.1177/014920639502100608

Isaacson, L. E. ^ Brown, D. (1997). *Career information, career counseling, and career development*. (6th ed.). Boston, MA: Allyn & Bacon.

Isaacson, W. (2011). *Steve Jobs*. New York, NY: Simon and Schuster.

Jacobs, R. (1989). Systems theory applied to human resource development. In Gradous, D. B. (Ed.), *Systems theory applied to human resource development* (pp. 27–60). Alexandria, VA: American Society for Training and Development.

Jago, A. G., & Vroom, V. H. (1978). Predicting leader behavior from a measure of behavioral intent. *Academy of Management Journal*, *21*, 715–721. doi:10.2307/255711

James, L., & Jones, A. (1974). Organizational climate: A review of theory and research. *Psychological Bulletin*, *18*, 1096–1112. doi:10.1037/h0037511

Jayne, M., & Dipboye, R. (2004). Leveraging diversity to improve business performance: Research findings and recommendations for organizations. *Human Resource Management*, *43*, 409–424. doi:10.1002/hrm.20033

Jenkins, J. J. (1974). Remember that old theory of memory? Well, forget it! *The American Psychologist*, *25*, 785–795. doi:10.1037/h0037399

Johnson, R. E. (1975). Meaning in complex learning. *Review of Educational Research*, *45*, 425–459.

Jones, A. P., & James, L. R. (1979). Psychological climate: Dimensions and relationships of individual and aggregated work environment perceptions. *Organizational Behavior and Human Performance*, *23*, 201–250. doi:10.1016/0030-5073(79)90056-4

Juran, J. M. (1989). *Juran on leadership for quality*. New York, NY: The Free Press.

Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*, *33*, 692–724. doi:10.2307/256287

Kandula, S. R. (2001). *Strategic human resource development.* New Delhi, India: Prentice-Hall of India Private Limited.

Karsten, M. F., & Igou, F. (2005) Career planning: A model for a diverse workforce. *Refereed Proceedings of the North American Management Society track at the 2005 Midwest Business Administration Association Conference.* Chicago. IL: MBAA.

Kaye, B. (1997). *Up is not the only way*. Englewood Cliffs, NJ: Davies-Black.

Kelly, E., & Dobbin, F. (1998). How affirmative action became diversity management: Employer response to antidiscrimination laws, 1961 to 1996. *The American Behavioral Scientist*, *41*, 960–984. doi:10.1177/0002764298041007008

Kelman, H. C. (1961). Processes of opinion change. *Public Opinion Quarterly*, *25*, 57–78. doi:10.1086/266996

Kerno, S., & Kuznia, K. (2007). Modern career navigation: Preparing for success despite uncertainties. *Industrial Engineer*, *39*(10), 31–33.

Kiesler, C. A., Collins, B. E., & Miller, N. (1969). *Attitude change*. New York, NY: John Wiley & Sons, Inc.

Kincheloe, J. (1999). *How do we tell the workers? The socioeconomic foundations of work and vocational education*. Boulder, CO: Westview Press.

Kirkpatrick, D. (1996). Great ideas revisited: Revisiting Kirkpatrick's four-level model. *Training and Development Journal*, *50*(1), 54–57.

Kirkpatrick, D. L. (1967). Evaluation. In Craig, R. L., & Bittle, L. R. (Eds.), *Training and development handbook* (pp. 87–112). New York, NY: McGraw-Hill.

Kirkpatrick, D. L. (1987). Evaluation. In Craig, R. L. (Ed.), *Training and development handbook* (3rd ed., pp. 301–319). New York, NY: McGraw-Hill.

Kirkpatrick, D. L. (1994). *Evaluating training programs: The four levels*. San Francisco, CA: Berrett-Koehler.

Kirton, M. J., & Mulligan, G. (1973). Correlates of managers' attitudes toward change. *The Journal of Applied Psychology*, *58*(1), 101–107. doi:10.1037/h0035425

Kluger, A. N., & DeNisi, A. (1996). The effects of feedback interventions on performance: A historical review, a meta-analysis, and a preliminary feedback intervention theory. *Psychological Bulletin*, *119*(2), 254–284. doi:10.1037/0033-2909.119.2.254

Kohn, A. (1993). Why incentive plans cannot work. *Harvard Business Review*, *71*(5), 54–63.

Kohn, M. L. (1981). Personality, occupation, and social stratification: A frame of reference. In Treiman, D. J., & Robinson, R. V. (Eds.), *Research in social stratification and mobility* (*Vol. 1*, pp. 267–297). Greenwich, CT: JAI Press.

Konrad, A. (2006). Leveraging workplace diversity in organizations. *Organization Management Journal*, *3*(3), 194–189. doi:10.1057/omj.2006.18

Kontoghiorghes, C. (2004). Reconceptualizing the learning transfer conceptual framework: Empirical validation of a new systemic model. *International Journal of Training and Development*, *8*, 210–221. doi:10.1111/j.1360-3736.2004.00209.x

Kotter, J. P. (1996). *Leading change*. Boston, MA: Harvard University Press.

Kotter, J., & Heskett, J. (1992). *Corporate culture and performance*. New York, NY: Free Press.

Koy, D. J., Briggs, S., & Grenig, J. (1987). State court disparity on employment-at-will. *Personnel Psychology*, *40*, 565–577. doi:10.1111/j.1744-6570.1987.tb00615.x

Kozlowski, S. W. J., Chao, G. T., Smith, E. M., & Hedlund, J. (1993). Organizational downsizing: Strategies, interventions, and research implications. *International Review of Industrial and Organizational Psychology*, *6*, 263–332.

Kozlowski, S. W. J., & Salas, E. (Eds.). (2010). *Learning, training, and development in organizations*. New York, NY: Routledge.

Kraiger, K., & Ford, J. K. (2007). The expanding role of workplace training: Themes and trends influencing training research and practice. In Koppes, L. L. (Ed.), *Historical perspectives in industrial and organizational psychology*. New York, NY: Psychology Press.

Kuchinke, K. P. (2000). Debates over the nature of HRD: An institutional theory perspective. *Human Resource Development International*, *3*(3), 279–283. doi:10.1080/13678860050128474

Kunneman, D. E., Key, J. P., & Sleezer, C. M. (2000). Management training activities and training needs within selected business and industry organizations in Oklahoma. *Journal of Career and Technical Education*, *16*(2), 51–56.

Kupritz, V. W. (2002). The relative impact of workplace design on training transfer. *Human Resource Development Quarterly*, *13*, 427–447. doi:10.1002/hrdq.1042

Lama, D. (1999). *Ethics for the new millennium*. New York, NY: Riverhead Books.

Latham, G. P., & Locke, E. A. (1991). Self-regulation through goal setting. *Organizational Behavior and Human Decision Processes*, *50*, 212–247. doi:10.1016/0749-5978(91)90021-K

Lawler, E. E. III. (2000). *Rewarding excellence: Pay strategies for the new economy*. San Francisco, CA: Jossey-Bass Publishers.

Lawler, E. E. III. (2003). *Treat people right!: How organizations and individuals can propel each other into a virtuous spiral of success*. San Francisco, CA: Jossey-Bass.

Lee, D. M. S., & Allen, T. J. (1982). Integrating new technical staff: Implications for acquiring new technology. *Management Science*, *28*, 1405–1420. doi:10.1287/mnsc.28.12.1405

Lee, M. R., & Lan, Y. (2007). From Web 2.0 to conversational knowledge management: Towards collaborative intelligence. *Journal of Entrepreneurship Research*, *2*(2), 47–62.

Leibowitz, Z. B., Farren, C., & Kaye, B. L. (1986). *Designing career development systems*. San Francisco, CA: Jossey-Bass.

Leifer, M. S., & Newstron, J. W. (1980). Solving the transfer of training problems. *Training and Development Journal*, (August): 42–46.

Lepper, M. R., Greene, D., & Nisbett, R. E. (1973). Undermining children's intrinsic interest with extrinsic reward: A test of the "overjustification" hypothesis. *Journal of Personality and Social Psychology*, *28*, 129–137. doi:10.1037/h0035519

Levinson, H. (1970). Management by whose objectives? *Harvard Business Review*, *48*(4), 125–134.

Levitt, B., & March, J. G. (1988). Organizational learning. *Annual Review of Sociology*, *14*, 319–340. doi:10.1146/annurev.so.14.080188.001535

Levy, F., & Murnane, R. J. (2005). *The new division of labor: How computers are creating the next job market*. Princeton, NJ: Princeton University Press.

Lewin, K. (1946). Action research and minority problems. *The Journal of Social Issues*, *2*(4), 34–46. doi:10.1111/j.1540-4560.1946.tb02295.x

Likert, R. (1961). *New patterns of management*. New York, NY: McGraw-Hill.

Likert, R. (1967). *The human organization*. New York, NY: McGraw-Hill.

Litwin, G. H., & Stringer, R. A. (1968). *Motivation and organizational climate*. Boston, MA: Harvard Business School, Division of Research.

Liyanage, J. P., & Kumar, U. (2003). Towards a value-based view on operations and maintenance performance management. *Journal of Quality in Maintenance Engineering*, *9*, 333–350. doi:10.1108/13552510310503213

Locke, J. (1691). Some considerations on the consequences of the lowering of interest. *The Works of John Locke, Vol. II.* London.

Locke, E. A. (1969). Purpose without consciousness: A contradiction. *Psychological Reports*, *25*, 991–1009. doi:10.2466/pr0.1969.25.3.991

Loden, M., & Rosener, J. B. (1991). *Workforce America! Managing employee diversity as a VITAL resource.* Homewood, IL Business One Irwin.

London, M., & Diamante, T. (2002). Technology-focused expansive professionals: Developing continuous learning in the high-technology sector. *Human Resource Development Review*, *1*(4), 500–524. doi:10.1177/1534484302238438

Lovallo, D., & Kahneman, D. (2003). Delusions of success: How optimism undermines executives' decision. *Harvard Business Review*, *81*, 56–63.

Mackenzie, K. D. (1986). *Organizational design: The organizational audit and analysis technology*. Norwood, NJ: Ablex Publishing Corporation.

Maidique, M. A., & Hayes, R. H. (1984). The art of high-technology management. *Sloan Management Review*, *25*(2), 17–31.

Malos, S. (1998). Current legal issues in performance appraisal. In Smither, J. (Ed.), *Performance appraisal: State of the art in practice (* (pp. 49–94). San Francisco, CA: Jossey-Bass Publisher.

Mangham, I. L., & Overington, M. A. (1983). Dramatism and the theatrical metaphor: Really playing at critical distances. In Morgan, G. (Ed.), *Beyond method: Social research strategies* (pp. 219–233). Beverly Hills, CA: Sage.

Mankin, D. A. (2001). A model for human resource development. *Human Resource Development International*, *4*(1), 65–85. doi:10.1080/13678860121714

March, J., & Simon, H. (1959). *Organizations*. New York, NY: Wiley and Sons.

Marcoulides, G. A., & Heck, R. H. (1993). Organizational culture and performance: Proposing and testing a model. *Organization Science*, *4*, 209–225. doi:10.1287/orsc.4.2.209

Marques, J. (2007). Diversity as a win-win strategy. *Management Services*, *51*(1), 22–24.

Martelli, J. (1998). Training for new technology: Midwest steel company. In Rothwell, W. (Ed.), *Linking HRD programs with organizational strategy* (pp. 85–96). Alexandria, VA: ASTD.

Martinez, M. E. (2010). *Learning and cognition: The design of the mind*. Upper Saddle River, NJ: Pearson.

Marx, K. (1906). *Capital* (*Vol. 1*). Chicago, IL: Kerr.

Maslow, A. (1987). *Motivation and personality* (3rd ed.). New York, NY: Harper & Row.

May, D. R., Gilson, R. L., & Harter, L. (2004). The psychological conditions of meaningfulness, safety, and availability and the engagement of the human spirit at work. *Journal of Occupational and Organizational Psychology*, *77*, 11–37. doi:10.1348/096317904322915892

McClelland, D. C. (1961). *The achieving society*. New York, NY: Free Press.

McGregor, D. (2006). *The human side of enterprise, annotated edition*. New York, NY: The McGraw-Hill Companies, Inc.

McKinney, J. C. (1966). *Constructive typology and social theory*. New York, NY: Appleton-Century-Crofts.

McLagan, P. (1989). *Models for HRD practice*. Alexandria, VA: American Society for Training and Development.

McLean, G. N. (2006). *Organization development*. San Francisco, CA: Berrett-Koehler.

McLean, G. N., Lynham, S. A., Azevedo, R. E., Lawrence, J. E. S., & Nafukho, F. M. (2008). A response to Wang and Swanson's article on National HRD and theory development. *Human Resource Development Review*, *7*(2), 241–258. doi:10.1177/1534484308316486

McLean, G. N., & McLean, L. D. (2001). If we can't define HRD in one country, how can we define it in an international context? *Human Resource Development International*, *4*, 313–326. doi:10.1080/13678860110059339

McPeck, J. E. (1990). Critical thinking and subject specificity: A reply to Ennis. *Educational Researcher*, *19*(4), 10–12.

Mero, N. P., & Motowidlo, S. J. (1995). Effects of rater accountability on the accuracy and the favorability of performance ratings. *The Journal of Applied Psychology*, *80*, 517–524. doi:10.1037/0021-9010.80.4.517

Miller, G. A. (1956). The magical number seven, plus-or-minus two: Some limits on our capacity for processing information. *Psychological Review*, *63*, 81–97. doi:10.1037/h0043158

Mintzberg, H. (1973). *The nature of managerial work*. New York, NY: Harper-Row.

Mintzberg, H. (1998). Covert leadership: Notes on managing professionals. Knowledge workers respond to inspiration, not supervision. *Harvard Business Review*, *76*(6), 140–147.

Mitchell, T. (1974). Expectancy models of job satisfaction, occupational preference and effort: A theoretical, methodological, and empirical appraisal. *Psychological Bulletin*, *81*, 1053–1077. doi:10.1037/h0037495

Mohrman, S., Gibson, C., & Mohrman, A. (2001). Doing research that is useful to practice: A model and empirical exploration. *Academy of Management Journal*, *44*, 357–375. doi:10.2307/3069461

Montesino, M. U. (2002). Strategic alignment of training, transfer-enhancing behaviors, and training usage: A post training study. *Human Resource Development Quarterly*, *13*(1), 89–108. doi:10.1002/hrdq.1015

Moran, J. W., & Brightman, B. K. (2000). Leading organizational change. *Journal of Workplace Learning: Employee Counseling Today*, *12*, 66–74.

Morgeson, F. P., & Campion, M. A. (1997). Social and cognitive sources of potential inaccuracy in job analysis. *The Journal of Applied Psychology*, *82*, 627–655. doi:10.1037/0021-9010.82.5.627

Morrison, A. M. (1992). *The new leaders: Guidelines on leadership diversity in America*. San Francisco, CA: Jossey- Bass Publishers.

Muchinscky, P. M. (1977). Employee absenteeism: A review of the literature. *Journal of Vocational Behavior*, *10*, 316–340. doi:10.1016/0001-8791(77)90066-5

Muchinsky, P. M. (2004). When the psychometrics of test development meets organizational realities: A conceptual framework for organizational change, examples and recommendations. *Personnel Psychology*, *57*(1), 179–205. doi:10.1111/j.1744-6570.2004.tb02488.x

Munck, B. (2001). Changing a culture of face time. *Harvard Business Review*, *79*(10), 125–131.

Münsterberg, H. (1913). *Psychology and industrial efficiency*. Boston, MA: Houghton Mifflin. doi:10.1037/10855-000

Murphy, A., & Garavan, T. (2009). The adoption and diffusion of an NHRD standard: A conceptual framework. *Human Resource Development Review*, *8*(1), 3–21. doi:10.1177/1534484308330019

Murphy, K. R. (1989). Is the relationship between cognitive ability and job performance stable over time? *Human Performance*, *2*(3), 183–200. doi:10.1207/s15327043hup0203_3

Murphy, K. R. (2008). Explaining the weak relationship between job performance and ratings of job performance. *Industrial and Organizational Psychology: Perspectives on Science and Practice*, *1*(2), 148–160. doi:10.1111/j.1754-9434.2008.00030.x

Murphy, K. R., & Cleveland, J. N. (1991). *Performance appraisal: An organizational perspective*. Boston, MA: Allyn & Bacon.

Myers, C. S. (1925). *Industrial psychology*. New York, NY: The People's Institute Publishing Company.

Nakajima, S. (1988). *Introduction to total productive maintenance*. Portland, OR: Productivity Press.

Neisser, U. (1967). *Cognitive psychology*. New York, NY: Appleton-Century- Crofts.

Nicholson, N., & Johns, G. (1985). The absence culture and the psychological contract--Who's in control of absence? *Academy of Management Review*, *10*, 397–407.

O'Reilly, C. A. III, Chatman, J., & Caldwell, D. F. (1991). People and organizational culture: A profile comparison approach to assessing person-organization fit. *Academy of Management Journal*, *34*, 487–516. doi:10.2307/256404

Odiorne, G. S. (1965). *Management by objectives: A system of managerial leadership*. New York, NY: Pitman Publishing.

Olmosk, K. E. (1972). Seven pure strategies of change. In Pfeiffer, J. W., & Jones, J. E. (Eds.), *The 1972 annual handbook for group facilitators*. San Diego, CA: Pfeiffer & Company.

Olson, G. P. (2002). Organizing for the future. In Pierce, J. L., & Newstrom, J. W. (Eds.), *The manager's bookshelf: A mosaic of contemporary views* (6th ed.). Upper Saddle River, NJ: Prentice Hall.

Ormond, J. E. (1999). *Human learning* (3rd ed.). Upper Saddle River, N J: Prentice-Hall Inc.

Orr, J. E. (1996). *Talking about machines. An ethnography of a modern job*. Ithaca, NY: ILR Press/Cornell University Press.

Ouchi, W. (1981). *Theory Z*. Reading, MA: Addison-Wesley.

Owens, R. (1987). *Organizational behavior in education*. Englewood Cliffs, NJ: Prentice-Hall.

Pareek, U. (1989). Motivational analysis of organizations-climate (MAO-C). In Pfeiffer, J. W. (Ed.), *The 1989 annual: Developing human resources* (pp. 161–18). San Diego, CA: Pfeiffer & Company.

Park, C. S. (2006). Reply. *Science and Society*, *70*, 379–380. doi:10.1521/siso.70.3.379

Pascale, R., & Athos, A. (1981). *The art of Japanese management*. New York, NY: Simon &Schuster.

Pavlov, I. P. (1927). *Conditioned reflexes*. London, UK: Routledge and Kegan Paul.

Penrose, E. T. (1959). *The theory of the growth of the firm*. New York, NY: Wiley.

Peters, T. J. (1978). Symbols, patterns and settings: An optimistic case for getting things done. *Organizational Dynamics*, *7*, 3–23. doi:10.1016/0090-2616(78)90035-9

Pettigrew, A. M. (1979). On studying organizational culture. *Administrative Science Quarterly*, *24*, 570–581. doi:10.2307/2392363

Pfau, B. N., & Kay, I. T. (2002). *The human capital edge: 21 people management practices your company must implement (or avoid) to maximize shareholder value*. New York, NY: McGraw-Hill.

Pfeffer, J. (1992). *Managing with power*. Boston, MA: Harvard Business School Press.

Pfeffer, J. (1994). *Competitive advantage through people: Unleashing the power of the workforce*. Boston, MA: Harvard Business School Press.

Pfeffer, J. (1998). *The human equation. Building profits by putting people first*. Boston, MA: Harvard Business School.

Pfeffer, J., & Sutton, R. I. (2006). Evidence-based management. *Harvard Business Review*, *84*(1), 62–75.

Phillips, J. J. (2003). *Return on investment in training and performance improvement programs* (2nd ed.). Burlington, MA: Elsevier Science.

Piaget, J. (1959). *The language and thought of the child*. London, UK: Routledge.

Piaget, J. (1970). *Structuralism*. New York, NY: Basic Books.

Pine, J. II. (1992). *Mass customization: The new frontier in business competition*. Boston, MA: Harvard Business School.

Pitts, D. (2006). Modeling the impact of diversity management. *Review of Public Personnel Administration*, *26*(3), 245–268. doi:10.1177/0734371X05278491

Pondy, L. R., & Boje, D. M. (1975). *Bringing mind back in: Paradigm development as a frontier problem in organization theory*. Paper presented at the Annual Meetings of the American Sociological Association, San Francisco, CA.

Pondy, L. R., & Boje, D. M. (1981). Bringing mind back in. In Evan, W. (Ed.), *Frontiers in organization and management* (pp. 83–101). New York, NY: Praeger.

Porter, L. W., & Lawler, E. E. (1968). *Managerial attitudes and performance*. Homewood, IL: Richard D. Irwin, Inc.

Porter, L. W., & Steers, R. M. (1973). Organizational, work, and personal factors in employee turnover and absenteeism. *Journal of Management*, *80*, 151–176.

Porter, M. (1980). *Competitive strategy*. New York, NY: Free Press.

Porter, M. (2001). Strategy and the Internet. *Harvard Business Review*, *79*(3), 62–78.

Powell, G. N., & Butterfield, D. A. (1994). *Race, gender and the glass ceiling: an empirical study of actual promotions to top management.* Paper presented at the annual meeting of the Academy of Management, Dallas, TX.

Prusak, L., & Cohen, D. (2001). How to invest in social capital. *Harvard Business Review*, *79*(6), 86–93.

Qureshi, S., Briggs, R. O., & Hlupic, V. (2006). Value creation from intellectual capital: Convergence of knowledge management and collaboration in the intellectual bandwidth model. *Group Decision and Negotiation*, *15*, 197–220. doi:10.1007/s10726-006-9018-x

Rainey, G. W. Jr, & Wolf, L. (1981). Flex-time: Short-term benefits; long-term...? *Public Administration Review*, *41*(1), 52–63. doi:10.2307/975724

Ramlall, S. (2004). A review of employee motivation theories and their implications for employee retention within organizations. *Journal of American Academy of Business, Cambridge*, *5*(1/2), 52–63.

Ramsey, M. (1986). *The super supervisor*. Greensboro, NC: Positive Presentations, Inc.

Reich, R. B. (1992). *The work of nations: Preparing ourselves for 21st century capitalism* (Rev. ed.). New York, NY: Vintage Books.

Reich, R. B. (2010). *Aftershock: The next economy and America's future*. New York, NY: Alfred A. Knopf.

Ringo, T., & McDonald, R. (2008). *(2007).Unlocking the DNA of the adaptable workforce: The global human capital study*. Somers, NY: IBM Global Services.

Ritti, R., & Funkhouser, G. (1982). *The ropes to skip and the ropes to know*. Columbus, OH: Grid.

Robbins, S. P. (2005). *Organizational behavior* (11th ed.). Upper Saddle River, NJ: Pearson Prentice Hall.

Robbins, S., & Coulter, M. (2007). *Management* (9th ed.). Upper Saddle River, NJ: Prentice Hall.

Robbins, S., & Judge, T. (2011). *Organizational behavior* (14th ed.). Upper Saddle River, NJ: Prentice Hall.

Rogers, E. M. (1995). *Diffusion of innovations* (4th ed.). New York, NY: The Free Press.

Rosenberg, N. (1972). *Technology and American economic growth*. Armonk, NY: M. E. Sharp.

Rousseau, D. M. (2006). Presidential address: Is there such a thing as "evidence-based management"? *Academy of Management Review*, *31*, 256–269. doi:10.5465/AMR.2006.20208679

Ruggles, R. (1998). The state of the notion: Knowledge management in practice. *California Management Review*, *40*(3), 80–89.

Rynes, S. L., Bartunek, J. M., & Daft, R. L. (2001). Across the great divide: Knowledge creation and transfer between practitioners and academics. *Academy of Management Journal*, *44*, 340–355. doi:10.2307/3069460

Sackett, D. L. (1997). Evidence-based medicine. *Seminars in Perinatology*, *21*(1), 3–5. doi:10.1016/S0146-0005(97)80013-4

Sackett, P. R., & Mullen, E. J. (1993). Beyond formal experimental design: Towards an expanded view of the training evaluation process. *Personnel Psychology*, *46*, 613–615. doi:10.1111/j.1744-6570.1993.tb00887.x

Sambataro, M. (2000, April). Just-in-time learning. *Computerworld.* Retrieved from http://www.computerworld.com/news/2002/story/0,ll280.443l2,00.html.

SCANS. (1991, June). What work requires of schools. *A SCANS report for America 2000*. Washington, DC: U.S. Department of Labor, The Secretary's Commission on Achieving Necessary Skills (SCANS).

Schein, E. (1990). Organizational culture. *The American Psychologist*, *45*, 109–119. doi:10.1037/0003-066X.45.2.109

Schein, E. H. (1975). How career anchors hold executives to their career paths. *Personnel*, *52*, 11–24.

Schein, E. H. (1983). The role of the founder in creating organizational culture. *Organizational Dynamics*, *12*(1), 13–28. doi:10.1016/0090-2616(83)90023-2

Schein, E. H. (1984). Coming to a new awareness of organizational culture. *Sloan Management Review*, *25*(2), 3–16.

Schein, E. H. (1988). Organizational socialization and the profession of management. *Sloan Management Review*, *30*(1), 53–65.

Schifter, D., & Fosnot, C. T. (1993). *Reconstructing mathematics education: Stories of teachers meeting the challenge of reform*. New York, NY: Teachers College.

Schmidt, F., Hunter, J., & Outerbridge, A. (1986). Impact of job experience and ability on job knowledge, work sample performance, and supervisory ratings of job performance. *The Journal of Applied Psychology*, *71*, 432–439. doi:10.1037/0021-9010.71.3.432

Schneider, B. (1975). Organizational climate: An essay. *Personnel Psychology*, *28*, 447–479. doi:10.1111/j.1744-6570.1975.tb01386.x

Schneider, B., & Reiehers, A. E. (1983). On the etiology of climates. *Personnel Psychology*, *36*, 19–40. doi:10.1111/j.1744-6570.1983.tb00500.x

Schor, J. (1991). *The overworked American: The unexpected decline of leisure*. New York, NY: Basic Books.

Schreiber, C. T., Price, K. F., & Morrison, A. (1993). Workplace diversity and the glass ceiling: Practices, barriers, possibilities. *Human Resource Planning*, *16*(2), 51–69.

Schuler, R. S., Dowling, P. J., Smart, J. P., & Huber, V. L. (1992). *Human resource management in Australia* (2nd ed.). Sydney, Australia: Harper Educational Publishers.

Scott, D., & Markham, S. (1982). Absenteeism control methods: A survey of practices and results. *The Personnel Administrator*, *27*(6), 73–84.

Scott, W. R. (1987). The adolescence of institutional theory. *Administrative Science Quarterly*, *32*, 493–511. doi:10.2307/2392880

Scott, W. R. (2004). Institutional theory. In Ritzer, G. (Ed.), *Encyclopedia of social theory* (pp. 408–414). Thousand Oaks, CA: Sage.

Selznick, P. (1949). *TVA and the grass roots: A study of politics and organization*. Berkeley, CA: University of California Press.

Senge, P. (1990). *The fifth discipline: The art and practice of the learning organization*. New York, NY: Doubleday.

Servan- Schreiber. J.-J. (1967). *The American challenge*. New York, NY: Atheneum Publishers.

Sheaffer, Z., Carmeli, A., Steiner-Revivo, M., & Zionit, S. (2009). Downsizing strategies and organizational performance: A longitudinal study. *Management Decision*, *47*, 950–974. doi:10.1108/00251740910966677

Short, D. (2006). Closing the gap between research and practice in HRD. *Human Resource Development Quarterly*, *17*(3), 343–350. doi:10.1002/hrdq.1178

Short, D. C., Sherlock, J. J., & Sugrue, B. (2004). Time to recognize those who link research and practice. *Human Resource Development Quarterly*, *15*(3), 259–262. doi:10.1002/hrdq.1102

Silberman, M. (1998). *Active training* (2nd ed.). San Francisco, CA: Jossey-Bass/Pfeiffer.

Sim, S. H., & Endrenyi, J. (1988). Optimal preventive maintenance with repair. *IEEE Transactions on Reliability*, *37*(1), 92–96. doi:10.1109/24.3721

Sitzmann, T., Brown, K. G., Casper, W. J., Ely, K., & Zimmerman, R. D. (2008). A review and meta-analysis of the nomological network of trainee reactions. *The Journal of Applied Psychology*, *93*(2), 280–295. doi:10.1037/0021-9010.93.2.280

Skinner, B. F. (1953). *Science and human behavior*. New York, NY: Macmillan.

Skinner, B. F. (1957). *Verbal learning*. New York, NY: Appleton-Century-Crofts. doi:10.1037/11256-000

Smircich, L. (1983). Concepts of culture and organizational analysis. *Administrative Science Quarterly*, *28*, 339–358. doi:10.2307/2392246

Smircich, L., & Morgan, G. (1982). Leadership: The management of meaning. *The Journal of Applied Behavioral Science*, *18*(3), 257–273. doi:10.1177/002188638201800303

Smith, F. (1975). *Comprehension and learning*. New York, NY: Holt, Rinehart & Winston.

Snell, S. A., & Dean, J. W. (1992). Integrated manufacturing and human resource management: A human capital perspective. *Academy of Management Journal*, *35*(3), 467–504. doi:10.2307/256484

Staw, B. M. (1980). The consequences of turnover. *Journal of Occupational Behavior*, *1*, 253–273.

Steers, R. M., Mowday, R. T., & Shapiro, D. L. (2004). The future of work motivation theory. *Academy of Management Review*, *29*(3), 379–387.

Steers, R. M., & Porter, L. W. (1979). *Motivation and work behavior* (2nd ed.). New York, NY: McGraw-Hill Book Company.

Steers, R. M., & Rhodes, S. R. (1978). Major influences on employee attendance: A process model. *The Journal of Applied Psychology*, *63*, 391–407. doi:10.1037/0021-9010.63.4.391

Stewart, T. A. (1999). *Intellectual capital: The new wealth of organizations*. New York, NY: Doubleday. Swanson, R. A. (1982). Industrial training. In W. H. Mitzel (Ed.), *5th encyclopedia of educational research* (pp. 864-870). New York, NY: Macmillan.

Storberg-Walker, J. (2005). Towards a theory of human capital transformation through human resource development. In M. L. Morris & F. M. Nafukho (Eds.), *2005 Academy of Human Resource Development Annual Research Conference Proceeding,* (pp. 323-330). Bowling Green, OH: Academy of Human Resource Development.

Super, D. (2002). A life-span, life-space approach to career development. In Brown, D., & Brooks, L. (Eds.), *Career choice and development* (2nd ed.). San Francisco, CA: Jossey-Bass. doi:10.1016/0001-8791(80)90056-1

Sutton, R. I. (2001). The weird rules of creativity. *Harvard Business Review*, *79*(8), 94–103.

Swamy, M. R. K. (2004). Does non-inclusion of intangible asset values lead to distortion of financial statements and mislead judicious financial decision making? Focus on environmental accounting and estimation of knowledge capital values. *Journal of Financial Management and Analysis*, *17*(1), 77–91.

Swanson, R. A. (1999). The foundations of performance improvement and implications for practice. In Torraco, R. (Ed.), *Performance improvement theory and practice: Advances in developing human resources* (pp. 1–25). Thousand Oaks, CA: Sage. doi:10.1177/152342239900100102

Swanson, R. A. (2001). The discipline of human resource development. In Swanson, R. A., & Holton, E. F. (Eds.), *Foundations of human resource development* (pp. 88–100). San Francisco, CA: Berrett-Koehler Publishers.

Swanson, R. A. (2007). Theory framework for applied disciplines: Boundaries, contributing, core, useful, novel, and irrelevant components. *Human Resource Development Review*, *6*, 321–339. doi:10.1177/1534484307303770

Swanson, R. A., & Holton, E. F. (2001). *Foundation of human resource development*. San Francisco, CA: Berrett-Koehler Publishers.

Swanson, R. A., & Torraco, R. J. (1994). Technical training's challenges and goals. *Technical & Skills Training*, *5*(7), 18–22.

Tagiuri, R., & Litwin, G. H. (Eds.). (1968). *Organizational climate: Exploration of a concept*. Boston, MA: Harvard Business School, Division of Research.

Tannenbaum, S. I. (1997). Enhancing continuous learning: Diagnostic findings from multiple companies. *Human Resource Management*, *36*, 437–452. doi:10.1002/(SICI)1099-050X(199724)36:4<437::AID-HRM7>3.0.CO;2-W

Taylor, F. W. (1911). *The principles of scientific management*. New York, NY: Harper & Row.

Taylor, P. J. (1974). Sickness absence: Factors and misconceptions. *Journal of the Royal College of Physicians*, *8*, 315–334.

Thériault, M., Des Rosiers, F., Villeneuve, P., & Kestens, Y. (2003). Modelling interactions of location with specific value of housing attributes. *Property Management*, *21*(1), 25–62. doi:10.1108/02637470310464472

Thomas, K. M. (2008). *Diversity resistance in organizations*. New York, NY: Lawrence Erlbaum.

Thompson, G. L. (1968). Optimal maintenance policy and sale date of a machine. *Management Science*, *14*, 543–550. doi:10.1287/mnsc.14.9.543

Thorndike, E. L. (1898). Animal intelligence: An experimental study of the associate processes in animals. *Psychological Review Monograph Supplement*, *2*(4), 1–8.

Thorndike, E. L. (1911). *Animal intelligence*. New York, NY: Macmillan.

Tiffin, J. (1942). *Industrial psychology*. New York, NY: Prentice-Hall. doi:10.1037/11230-000

Tolman, E. C. (1932). *Purposive behavior in animals and men*. New York, NY: Century.

Tolman, E. C. (1938). The determiners of behavior at a choice point. *Psychological Review*, *45*, 1–41. doi:10.1037/h0062733

Torraco, R. J. (2000). The relationship of learning and performance improvement at different system levels. *Performance Improvement Quarterly*, *13*(1), 60–83. doi:10.1111/j.1937-8327.2000.tb00157.x

Trevino, L. K., & Brown, M. E. (2004). Managing to be ethical: Debunking five business ethics myths. *The Academy of Management Executive*, *18*(2), 69–81. doi:10.5465/AME.2004.13837400

Trice, H. M., & Beyer, J. M. (1984). Studying organizational cultures through rites and ceremonials. *Academy of Management Review*, *9*, 653–669.

Trice, H. M., & Beyer, J. M. (1986). Charisma and its routinization in two social movement organizations. In Staw, B. M., & Cummings, L. L. (Eds.), *Research in organizational behavior* (*Vol. 8*, pp. 113–164). Greenwich, CT: JAI Press.

Trumbo, D. A. (1958). *An analysis of attitudes toward change among the employees of an insurance company*. Unpublished Doctoral dissertation, Michigan State University.

Trumbo, D. A. (1961). Individual and group correlates of attitudes toward work-related change. *The Journal of Applied Psychology*, *45*(5), 338–344. doi:10.1037/h0040464

Tushman, M. L., & Anderson, P. (1986). Technological discontinuities and organizational environments. *Administrative Science Quarterly*, *31*, 439–465. doi:10.2307/2392832

Tziner, A., Murphy, K. R., & Cleveland, J. N. (2001). Relationships between attitudes toward organizations and performance appraisal systems and rating behavior. *International Journal of Selection and Assessment*, *9*, 226–239. doi:10.1111/1468-2389.00176

Van de Ven, A. H., & Johnson, P. E. (2006). Knowledge for theory and practice. *Academy of Management Review*, *31*(4), 802–821. doi:10.5465/AMR.2006.22527385

Vardi, Y. (1980). Organizational career mobility: An integrative model. *Academy of Management Review*, *5*, 341–355.

Venkatraman, N., & Henderson, J. C. (1998). Real strategies for virtual organizing. *Sloan Management Review*, *34*(2), 73–87.

Vergano, D. (2011, February 17). Watson dominated at 'Jeopardy!- but what else can it do? *USA Today*, p. 2D.

Vince, R. (2003). The future practice of HRD. *Human Resource Development International*, *6*(4), 559–563. doi:10.1080/1367886031000163065 6

Viswesvaran, C. (2001). Assessment of individual job performance: A review of the past century and a look ahead. In Anderson, N., Ones, D. S., Sinangil, H. K., & Viswesvaran, C. (Eds.), *Handbook of industrial, work and organizational psychology* (*Vol. 1*, pp. 110–126). London, UK: Sage.

Vitak, J., Crouse, J., & LaRose, R. (2011). Personal Internet use at work: Understanding cyberslacking. *Computers in Human Behavior*, *27*, 1751–1759. doi:10.1016/j.chb.2011.03.002

Viteles, M. S. (1932). *Industrial psychology*. New York, NY: Norton.

Voss, J. (1978). Cognition and instruction: Toward a cognitive theory of learning. In Lesgold, A., Pellegrino, J., Fokkema, S., & Glaser, R. (Eds.), *Cognitive psychology and instruction* (pp. 13–23). New York, NY: Plenum.

Vroom, V. H. (1964). *Work and motivation*. New York, NY: John Wiley & Sons, Inc.

Vroom, V. H. (1973). A new look at managerial decision making. *Organizational Dynamics*, *1*(4), 66–80. doi:10.1016/S0090-2616(73)80024-5

Vroom, V. H. (1995). *Work and motivation*. San Francisco, CA: Jossey-Bass.

Vroom, V. H. (2003). Educating managers for decision making and leadership. *Management Decision*, *41*, 968–978. doi:10.1108/00251740310509490

Vroom, V. H., & MacCrimmon, K. R. (1968). Toward a stochastic model of managerial careers. *Administrative Science Quarterly*, *13*(1), 26–46. doi:10.2307/2391260

Vygotsky, L. S. (1979). Consciousness as a problem in the psychology of behavior. *Soviet Psychology, 176*(4), 3-35. (Originial work published 1924).

Vygotsky, L. S. (1987). *The collected works of L.S. Vygotsky* (Rieber, R. W., & Carton, A. S., Eds.). *Vol. 1*). New York, NY: Plenum Press.

Waldfogel, J. (1999). The impact of the family and medical leave act. *Journal of Policy Analysis and Management*, *18*, 281–302. doi:10.1002/(SICI)1520-6688(199921)18:2<281::AID-PAM5>3.0.CO;2-J

Walton, M. (1986). *The Deming management method*. New York, NY: Perigee.

Wang, M. (2011). Integrating organizational, social, and individual perspectives in Web 2.0-based workplace e-learning. *Information Systems Frontiers*, *13*, 191–205. doi:10.1007/s10796-009-9191-y

Warr, P., Bird, M., & Rackham, N. (1970). *Evaluation of management training*. London, UK: Gower Press.

Watson, J. B. (1913). Psychology as the behaviorist sees it. *Psychological Review*, *20*, 157–177. doi:10.1037/h0074428

Weatherbee, T. G. (2010). Counterproductive use of technology at work: Information & communications technologies and cyberdeviancy. *Human Resource Management Review*, *20*, 35–44. doi:10.1016/j.hrmr.2009.03.012

Weber, M. (1947). *The theory of social and economic organization* (Henderson, A. M., & Parsons, T. (Trans. Eds.)). Glencoe, IL: The Free Press.

Weber, M. (1964). *The theory of social and economic organization*. New York, NY: Free Press.

Weiner, B. (1972). *Theories of motivation: From mechanism to cognition*. Chicago, IL: Markham.

Weiner, B. (1985). An attributional theory of achievement motivation and emotion. *Psychological Review*, *92*, 548–573. doi:10.1037/0033-295X.92.4.548

Weintraub, R. S., & Martineau, J. W. (2002, June). The just-in-time imperative. *Training and Development Journal*, 51–57.

Welch, J. (2005). *Winning*. New York, NY: Collins.

Wenstop, F., & Myrmel, A. (2006). Structuring organizational value statements. *Management Research News*, *29*, 673–683. doi:10.1108/01409170610715990

Werner, J. M., & DeSimone, R. L. (2012). *Human resource development* (6th ed.). Mason, OH: South-Western.

Whitman, M. (2010). *The power of many: Values for success in business and in life*. New York, NY: Three Rivers Press.

Wiener, Y. (1982). Commitment in organizations: A normative view. *Academy of Management Review*, *7*, 418–428.

Wiener, Y. (1988). Forms of value systems: A focus on organizational effectiveness and cultural change and maintenance. *Academy of Management Review*, *13*, 534–545.

Wiley, C. (1997). What motivates employees according to over 40 years of motivation surveys. *International Journal of Manpower*, *18*, 263–280. doi:10.1108/01437729710169373

Wilkins, A. L., & Ouchi, W. G. (1983). Efficient cultures: Exploring the relationship between culture and organizational performance. *Administrative Science Quarterly*, *28*, 468–481. doi:10.2307/2392253

Wilson, H. T. (2004). Use value and substantive rationality in the work of Marx and Weber. *Journal of Classical Sociology*, *4*(1), 4–30. doi:10.1177/1468795X04040650

Wittrock, M. C. (1978). The cognitive movement in instruction. *Educational Psychologist*, *13*(1), 15–29. doi:10.1080/00461527809529192

Wlodkowski, R. J., & Ginsberg, M. B. (1995). *Diversity and motivation: Culturally responsive teaching*. San Francisco, CA: Jossey-Bass.

Woehr, D. J., & Huffcutt, A. I. (1994). Rater training for performance appraisal: A quantitative review. *Journal of Occupational and Organizational Psychology*, *67*(3), 189–205. doi:10.1111/j.2044-8325.1994.tb00562.x

Womack, J. P., & Jones, D. T. (1996). *Lean thinking*. New York, NY: Simon & Schuster.

Wright, P. M., & McMahan, G. C. (1992). Theoretical perspectives for strategic human resource management. *Journal of Management*, *18*, 295–320. doi:10.1177/014920639201800205

Yorks, L. (2005). Nothing so practical as a good theory. *Human Resource Development Review*, *4*(2), 111–113. doi:10.1177/1534484305276176

Zakaria, F. (2010, November). Restoring the American dream. *Time*, *176*(18), 30–35.

About the Author

Claretha Hughes, Director of the College of Education and Health Professions' Honors Program and Associate Professor, teaches and serves as the Program Coordinator for the Human Resource and Workforce Development Program in the Department of Rehabilitation, Human Resources and Communication Disorders at the University of Arkansas in Fayetteville, Arkansas. She has extensive professional experience in business and industry and continues to serve as a consultant to international, national, and state organizations. Her research focuses on value creation through the use of human resource development and technology development. She is interested in the impact of the value of people and technology (1) on teaching and learning processes and motivation; (2) on organizational culture, change strategies, and leadership; and (3) on technology in the workplace environment and employee behavior. She is the 2009 University Council of Workforce and Human Resource Education Outstanding Assistant Professor. Dr. Hughes has a Ph.D. in Career & Technical Education from Virginia Tech, a MT degree from NC State University, a BA in Chemistry from Clemson University, and an MBA from the Sam M. Walton College of Business at the University of Arkansas. She has publications in journals such as *Human Resource Development Review,* the *International Journal of Human Resource Development and Management,* and the *Journal of the North American Management Society.*

Index

T

V

W