AGRICULTURAL MARKETING

AgEc3103

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Chapter One

1. Agricultural Marketing and Economic Development

1.1. Concepts of Marketing

Market

The word market comes from the Latin word "marcatus" w/c means merchandise or trade or a place where business is conducted.

- The word "market' has been widely and variedly used to mean:
- A place or a building where commodities are brought & sold. E.g. super market.
- Potential buyers & sellers of product. E.g. wheat market, coffee market;
- Potential buyers & sellers of a country or region. E.g. china market, Ethiopia market;
- An organization w/c provides families for exchange of commodities. E.g. Tokyo stock exchange

Components of market

What are the conditions that should be practical to satisfy the existence of a market?
Can you identify them? (You can write your responses on the spaces given below (5 minutes)

For a market to exist certain conditions must be satisfied which are both necessary and sufficient. These conditions are known as components of a market. These are:

- The existence of buyers and sellers;
- the existence of Product and services for exchange;
- there should be business relationship between buyers and sellers
- Demarcation of area/place, region, country and or coverage.

Dear students, understanding the core concepts of marketing help you to understand the marketing system and the key terms in the studying marketing.

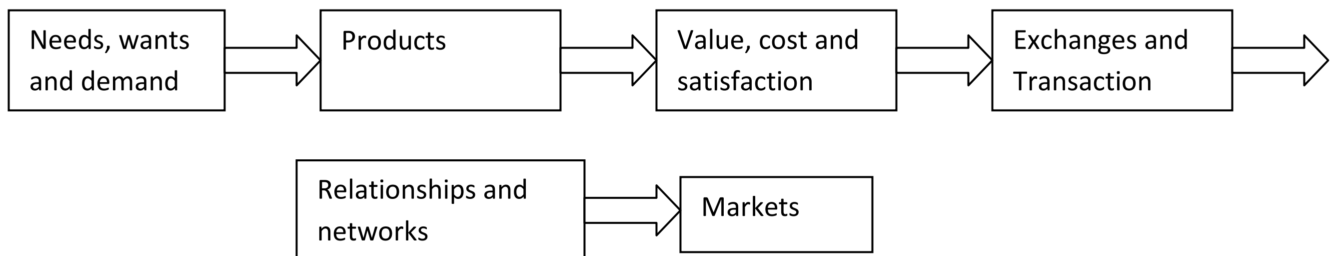


Figure 1.1 the core concepts of marketing

Needs, wants and demand

The starting point for the discipline of marketing lies in human needs, wants and demand. People need, want and demand many varieties of things. The marketer must try to understand the target market's need, wants and demands.

Needs – are the basic human requirements. People need food, air, water, clothing, and shelter to survive. People also have strong needs for recreation, education and entertainment.

It is the deficiency of something useful. Needs are not created by society or by marketers. They exist in the very nature of human biology and the human condition. However, these needs become wants when they are directed to specific objects that might satisfy the need.

Wants - are desires for specific satisfiers of the needs. A want for one person may not be a want for another person. In other words, what is desired by one person may not be desired by another. What is good for one person may be worse for another. For example, when a person feels hungry, he needs food but the type of food he wants may be different.

Although people's needs are few, their wants are many. Human wants are continually shaped and reshaped by social forces and institutions including churches, schools, families and business corporations.

Demands-are thus wants for specific product that is backed by an ability to buy them. Wants become then demands when they are backed up by purchasing power. Many people want a Mercedes; only a few are able to buy one. Companies must measure not only how many people want their product but also how many would actually be willing and able to buy it.

These distinctions between needs, wants and demands shed light on the frequent criticism that "market creates needs" or "marketers get people to buy things they don't want." Marketers don't create needs; needs pre-exist marketers. Marketers, along with other societal factors, influence wants. Marketers want to promote the idea that a Mercedes would satisfy a person's need for social status. They don't, however, create the need for social status.

Products

Products (goods, services and ideas)

Product is anything that can be offered to the people through the market for acquisition, use and/or attention. A products can be; physical good, service or idea.

Physical goods- this constitutes the bulk of most countries' production and marketing efforts. This includes machinery, cloth, food, etc.

Services- intangible products such as hotels, technical advisory service, credit service, insurance service, telephone service, etc.

A service is deed performed by one party for another. When you provide a service, the customer can't keep it. Rather, a service is experienced, used or consumed. Services are not physical–they are intangible – you can't hold a service. And it may be hard to know exactly what you will get when you buy it.

Ideas - every marketing offering includes a basic idea. Products and services are platforms for delivering some ideas or benefits. Social marketers are busy promoting such ideas as "say no to drugs"– to convince people that drugs have side effects; "save the rainforest" – to promote environmental protection; and "Exercise daily" – to promote gymnastics; etc. When the Ethiopian HIV/AIDS Secretariat Office advocates, for instance, "One-to-One Sex relationship" - it is selling ideas.

Marketing, Production and Utilities

Production is a very important economic activity. Whether for lack of skill and resources or just lack of time, most people do not make most of the products they use. Imagine yourself, for example, building a compact disk player or tape-recorded, TV, a watch, cloths, a pair of shoes, different kinds of food items, a residential home, - starting from scratch: we also turn to others to produce services -like health care, car, transportation, telephone service, and entertainment.

Value, cost and satisfaction

How do consumers choose among the products that might satisfy a given need? A number of products can satisfy the same need. The consumer has to decide on the most satisfying product from among different alternatives.

Value is the consumer's estimate of the product's overall capacity to satisfy his or her needs. Consumers, in order to maximize their satisfaction; they have to consider not only the value they can acquire from owning or using a product, but also the *cost* they incur to acquire the product. Therefore, consumers will have to consider the product's *value* and *cost* before making a choice.

Exchange and transaction

Exchange is the act of obtaining a desired product from someone by offering something in return. *Exchange is frequently described as a value - creating process because exchange normally leaves both parties better off.*

Transaction: two parties are engaged in exchange if they are negotiating and moving towards an agreement. When an agreement is reached, we say that a transaction takes place. Transaction may be either monetary or barter transaction. Transactions are supported and enforced through certain legal systems. Transaction differs from transfer in that in a transfer nothing is received in return for an offer.

Markets

The concept of exchange leads to the concept of market. Traditionally, a "*market*" was a physical place where buyers and sellers gather to buy and sell goods. This is a traditional perspective which views market as the place where buyers and sellers gathered to exchange their goods in such places as a village square.

Economists now describe a *market* consists of all the potential customers sharing a particular need or want who might be willing and able to engage in exchange to satisfy that need or want. The size of the market depends on the number of persons who exhibit the need or want, have resources that interest others and are willing and able to offer these resources in exchange for what they want.

Accordingly, the term *market* refers to a collection of buyers and sellers who transact over a particular product or product class as a housing market, stock market, financial market, etc. Marketers, however, see the sellers as constituting the industry and the buyers as constituting the market. As shown in Figure 1.3, sellers and buyers are connected by four flows. The seller sends goods and services, and communications (advertisement, direct mail) to the market; in return they receive money and information (attitudes, sales data). The inner loop shows an exchange of money for goods and services; the outer loop shows an exchange of information.

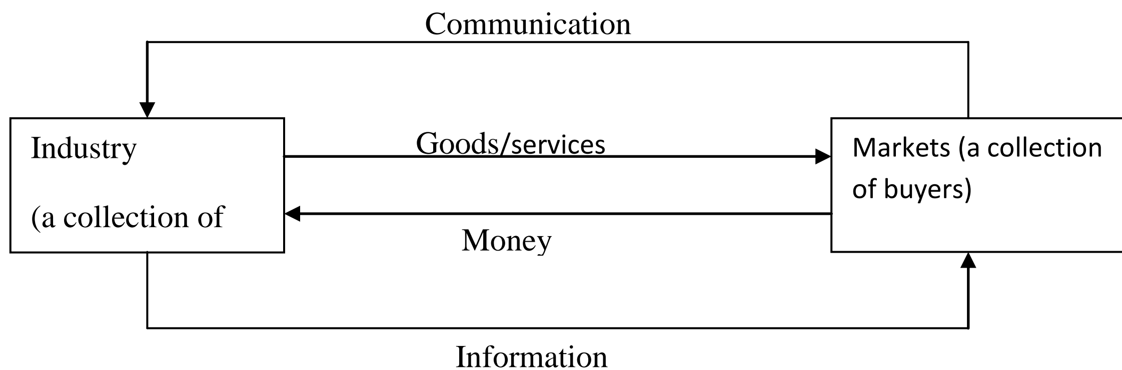


Figure 1.2 a simple marketing system

1.2. Agricultural marketing and economic development

- **Meaning of agricultural marketing**

  Dear learner, what do you understand about agricultural marketing?

It is important to write the definition of agricultural marketing from your own point of view before reading the definition written below:

Marketing can be defined in various ways as many writers have used their own way of defining it. In fact, there are almost as many definitions as to the number of marketing specialists. As such, there cannot be a universally accepted definition. The definitions depend

upon the role marketing is expected to play and the perspective from which it is viewed. Generally, Marketing is a total system of business activities designed to plan, price, promote and distribute want-satisfying products to target markets and to achieve organizational objectives.

Like marketing, there are many ways of defining agricultural marketing; some writers have used the "economists" definition of production as a basis for the term agricultural marketing. The economists' reason states that man cannot create matters; he produces by changing matters in form, place, and possession so that it might better suit his wants. Other writers have limited their definition to include only the sale of the product. This concept probably originated from the word market is a place where the ownership of a product changes hands where goods are bought and sold. Here the producer may sell directly to the consumer, but to do so, he may have to pack, store and transport and advertise his product. Note that, selling is not marketing; it is one component/function/ of marketing. Based on the above concept agricultural marketing can be defined as follows:

Agricultural marketing is the study of all activities, agencies, and policy involved in the procurement of farm inputs and the movement of agricultural product from the farms to the consumer.

Thus agricultural marketing is the link between the farm and nonfarm sectors. It includes organization of agricultural and material supply, processing industries, the assessment of demand for farm inputs and raw materials and the policy related to the marketing of farm products to the consumer. Therefore the term, "agricultural marketing" as used in this learning task describes nothing more than a series of services involved in getting goods from the point of production to the point of consumption.

- **Characteristics of agricultural products & the difference with manufactured goods**

Dear learner, what are the special features of farm products that makes them different from manufactured products? (You can take 10 minutes to write your responses on the spaces given below:

The special characteristics of farm products have pronounced influence on where and when they are produced. There are some major characteristics of farm products which make them different from manufactured products, these are:

i) Dependence of seasonal and weather condition: agricultural production is heavily dependent on weather condition, especially in developing countries like Ethiopia. It heavily depends on seasons because most of the crop production system is rain fed agriculture.
ii) The quality of agricultural product is subject to many conditioning factors as the agro-ecological zones of the regional states is one of the cases, and the weather, again being

not the least among them. Good quality and large yields go hand in hand; in that when yields are poor, quality is frequently poor. Wide variations in quality tend to disorganize the market, because wide price complicate dragging and makes transportation difficult.

iii) Time lag of agricultural products: there is a long difference in time of commencement and getting the produce. For annual crops it may take 60days, 90days, 120days, and 150days and may be more and for perennial crops like coffee, fruit, cotton it takes more time. Because of this time difference, there may be a change in the demand for the commodity and this makes marketing difficult.

iv) Nature of perishability and bulkiness: the bulkiness character of farm products can affect marketing in such a way that it needs huge storage facility, transport facility, which in turn increases the marketing margin. The extent of perishable of farm products may be reduced by the processing function but it cannot be non perishable like manufactured products. Perishable farm products are sensitive to price fluctuation which an implication that it demands effective and efficient storage and distribution systems.

v) Control over the conditions of production: Agriculturalists have little control of production processes and thus it is difficult to plan accurately. Farming business return compared to industry: Farming business is slow and of low return over time when compared to industrial products and this can be ascertained by analyzing payback period.

vi) The law of diminishing returns: This begins to operate at earlier stage which means the marginal productivity of the same quality of labor is more in industrial sector than in agricultural sector.

vii) Size of land holding and low farm production: farmland holdings are small in size and production is scattered of farm products in the country which can be a problem to estimate market supply and to set market prices.

- **The Role of Agricultural Marketing in Economic Development**

Dear learner what are the main concerns of agricultural marketing? You can take five minutes to write your responses on the spaces given below:

Marketing has developed in importance and complexity as economic development and specialization has increased productive capacity and separated food producers from consumers. The pioneers of our environment did not have to concern themselves with marketing problems. Each family grew its own food for consumption and built its own shelter. The act of producers and consumers may not be known or it might indicate the same individuals, lived nearer to each other.

The primary concern of agricultural marketing is geared to efficient marketing of farm products i.e. moving products from producers to consumers at the lowest possible cost by providing appropriate services. Thus you are interested not only in understanding consumer wants and how the present marketing system functions, but also, more importantly, in how

you as a student of agricultural marketing can take advantage of that knowledge to bring about a more efficient system, no matter who derives the benefits.

The interrelationship between the productivity of the agricultural production processes and the development of an efficient marketing system is not always well understood. Since the end of World War II, there has been great interest in improving the economic status of the developing countries of the world. At first, it was widely thought that if these countries would only apply the known improved production technologies, such as fertilizers, better seeds and cultivating machinery, advancing output and progress would be forthcoming. Without modern marketing systems including communications, transportation, storage facilities and financing arrangements, this is not possible once again, it is demonstrated that agricultural production and food marketing must develop hand in hand. They are partners in a progressive system.

- **Importance of agricultural marketing**

Dear learner, this section focuses on the importance of agricultural marketing and the factors affecting the general growth of agricultural marketing. The basis of all marketing is man's effort to satisfy his wants. These include the basic items such as food, clothing and shelter. The desire to cultivate material goods, the mental and spiritual wants have lead to both acceleration and maintaining tradition of man's progress. The marketing economy has developed much more rapidly. Here freedom to do as one wish was greatest, and with the individual reaping the rewards of his own work, the standard of living of the people has reached the highest level in the world.

Agricultural marketing plays an important role not only in stimulating production but also in accelerating the pace of economic development. The importance of agricultural marketing in economic development is stated as to the following:

Optimization of resource use and output management

An efficient agricultural marketing system leads to the optimization of resource use and output management. An efficient output system can also contribute to an increase in the marketable surplus by scaling down the losses arising out of inefficient processing, storage and transportation.

Increase of farm income

An efficient marketing system ensures higher levels of income for the farmer by reducing the number of middle men or restricting the commission on marketing services. When there is an efficient marketing system, farmers get better prices for their farm products and enable them to invest their surplus in purchasing modern inputs. This may lead to an increase of production and productivity.

Widening of markets

A well-knit marketing system widens the market for the product by taking them to remote corner both within and outside the country i.e. to areas far away from the production point. The widening of the market helps in increasing the demand on a continuous basis, and thereby guarantees a higher income to the producer.

Growth of agro based industries

An improved and efficient system of agricultural marketing helps in the growth of agro based industries and stimulates the overall development process of the economy. Many industries depend on agriculture for the supply of raw materials.

Price signals

An efficient marketing system helps the farmer in planning their production in accordance with the need of the economy. This work is carried out through pricing signals.

Adoption and spread of new technology

The marketing system helps the farmer in the adoption of new, scientific and technical knowledge. New technology requires higher investment and farmers would invest only if they are assured of the market clearance.

Employment

The marketing system provides employment to millions of persons engaged in various activities such as: packaging, transportation, storage and processing. These persons are like commission agents, brokers, traders, retailers and packagers who directly employed in the marketing system.

Addition to the national income

Marketing activities and value added to the product thereby increases the nation's gross national product and net national product.

Better living

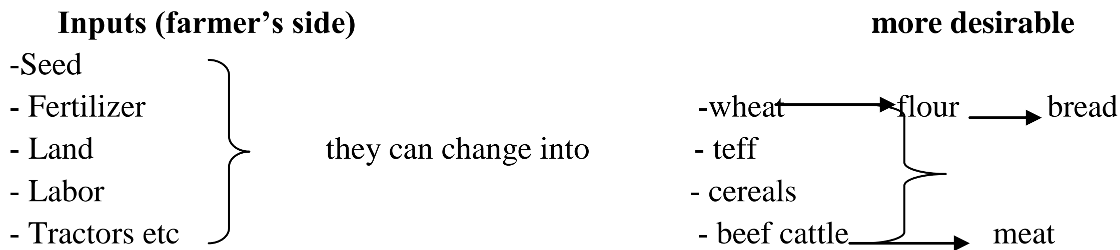
The marketing system is essential for the success of the development program, which are designed to uplift the population as a whole. In any plan of development that aims at diminishing the poverty of the agricultural population, reducing consumer food prices, and earning more foreign exchange or eliminating economic waste has therefore, to get special attention to the development of an efficient marketing system for agricultural products.

Creation of utility

Agricultural marketing is productive by creating utility. Though, many people consider the marketing system and those engaged in various marketing activities as parasite to producers and/or farmers.

Farmers and processors complain about the profit the middlemen make because they consider that they alone produce the final product. But in reality, it is the farmers who produce raw materials. Many things should be done to the farm products like transport, processing, transfer, storage etc. thus the middlemen can also be productive. They can create utility which is defined as the power of goods or services to satisfy human wants. There are four classes of utility, these include:

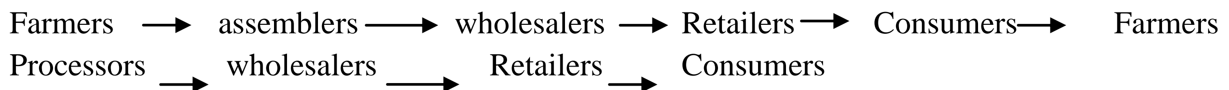
A. Form utility- is the utility that occurs due to the changing of product forms through processing into more desirable and useful products.



B. Place utility:- the utility that a product has due to its location, as for instance, when coffee is transported from surplus areas to deficits areas, it means creating place of utility.

C. Time utility:- refers to the utility created by changing the time of use of the product, E.g., storing during excess surplus and moving into trade channels during the period of scarcity. Agricultural products are mostly seasonal in the Ethiopian condition because it is like 4 months surplus and 8 months deficit. Thus storing grain or freezing meat for instance, adds time utility which is more desirable and useful.

D. Possession utility:- utility is created by moving finished products into the hands of the consumers. This meant for changing ownership at different chain



Generally, people realize productivity of marketing is an act of farmers and processors, creating visible change in the chain of marketing. However, other individuals who render productive services are considered as non-productive for they do not create visible change in the product. Nevertheless, both groups are necessary for the creation of the final products that is used for consumption.

Factors leading to the growth of agricultural marketing

Dear learner, what do you think are the factors that led to growth in agricultural marketing (take five minutes to write your response on the spaces given below)

The following factors have led to the growth in agricultural marketing:

Specialization

The tendency towards increasing specialization by persons in certain jobs has resulted in an increase in their efficiency and the breakdown in the self sufficiency of the family unit. Specialization has resulted in an increased production, which is the base for the growth of marketing and in turn of the economy.

Urbanization

Urban people are the main buyers of agricultural surplus. The growth of the Ethiopian population in to 80 million has currently necessitated a faster growth in the area of agricultural marketing.

Transportation and communication

An improved system of transportation and communication facilities have widen the market opportunity for farm products. The length and breadth of the market to which a product is taken from the production areas can be increased.

Technological change in agriculture

Technological development in agriculture such as, the evolution of higher yielding varieties of seeds, increase use of modern inputs and better cultivation practices in the agricultural sector can lead to an increase in farm production, marketing surplus and growth of the marketing system.

1.1.6. Marketing of farm products and Market Classification

Dimensions of a market

Dear learner, what are the possible dimensions that you think of a certain market can be determined?

There are various dimensions of a specified market on the basis of: Some of these dimensions are discussed below:

Market classification based on location

Dear learner can you mention the classifications of market based on location?

On the basis of the place of location or operation, markets are the following types;

i) **Village market**

Are markets where transactions take place between buyers and sellers of the same village. Limited business activity, limited number of commodity, function also limited.

ii) **Primary market**

iii) **Secondary market also know as wholesale market**

iv) **Terminal market – also known as 'consuming centers.'**

- **Classification based of area of coverage:-**

A market can be classified in to two general categories, these are:

- Domestic markets: These are markets where items are supplied for domestic consumption only. Here transaction is performed with in a single country.
- International markets: these are markets where items are sold cross border or internationally.

- **Market classification based on time span**

Based on time span, markets can be classified into three which are discussed as follows:

Short-period Market

These are markets, which are held for very short period of time, usually held for a day, or some few hours. The products of short period markets are perishable in nature such as milk, tomato, fish etc. here, the price the of the product is influenced by demand rather than the supply of a product in the market place

Long period market

These are held for a longer period of markets than short period markets. Products which are dealt here are food grains or oil seeds. Prices are governed by supply and demand forces

Secular-Period market

These are markets of a permanent nature. They are relatively durable in nature.

- **Market classification based on volume**

On the basis of volume of transactions, markets can be classified into:-

Wholesale Market & Retailer market

- **Classification based on competition**

Dear learner, do you recall your studies in your previous introductory economics course the discussion you made about competition? What do you remember about competition and competitive markets?

On the basis of competition, markets can be classified into perfect and imperfect.

a) Perfect competition market

b) Imperfect market

- **Market classification based on public intervention**

The classification of market on the basis of the effect of public intervention is:

Regulated markets: these are markets where business activities are carried in accordance with the rules and regulations formed by the statutory market organization. Here, costs are standardized and marketing practices are regulated. How the price is fix, method of pricing of the wholesalers. E.g. in India almost 99% is regulated market.

Unregulated market: in this case, business is conducted without any set of rules and regulations. Traders frame their own rules for the conduct of business.

- **Market classification based on the nature and durability of goods**

Based on the nature and durability markets can be classified into four.

i) **Consumables markets**: are those markets where products that have shorter lifespan are sold. In these markets largely items that people use in their day to day life are sold.

ii) **Durable markets** are such as consumer goods that have a relatively longer lifespan are sold. They can serve for longer period and consumers can use repeatedly.

iii) **Disposable markets** are inexpensive durables that people use them only once for a very short period and then disposed them off.

- **Nature of transaction**

Based on the nature of transaction markets can be classified as follows:

i) Spot or cash market

- These markets are markets in which goods are exchanged for money immediately after the sale is called the spot market.

ii) Forward /Future market

These markets are markets in which the purchase and sale of a commodity is negotiated much before the actual physical transactions of the commodity.

Negotiation takes place at least once and transactions take place in the future deliberately.

- **Growth of Market**

Following the economic development of a country or nation, there is a tendency for market growth. The market development, takes place both quantitatively and qualitatively.

Dear learner, whenever you think of development, there you talk about market growth. How do you indicate the market growth in agricultural products? There are two dimensions of market development: these are

i) Functional growth

Initially, a market is a multi commodity market characterized by small volume business; and such a market is known as general market. However, through time there is a tendency for this market to specialize in a certain commodity. Here specialization leads to increasing in volume of business where deals take place through inspection of samples rather than complete lots. Hence, the function of growth will be from general markets to specialized markets.

ii) Spatial growth

Initially buyers and sellers in a limited area interact without linkages to outsiders in the local markets. But increase in the quantity of commodity to be handled has led the geographical growth of markets from local to regional to national and to international boundaries.

- **Factors affecting the growth of market development**

Dear learner, do you have any idea about the factors that affect the rate of market development?

Marketing has developed in importance and complexity as economic development and specialization has increased productive capacity and separated food producers from consumers. The following are some of the factors affecting the rate of market development:

- Nature of demand: goods which have relatively regular demand develop faster than those with seasonal demand.
- Nature of the product: the markets for durable goods grow at a faster rate than the market for those which easily became defective. That is perishable goods.
- Transportation and communication facilities: markets which are connected by a good transportation network grow at a faster rate than markets where such facilities are lacking
- Quantity of supply and demand: markets in highly producing and highly consuming areas develop at a faster rate than in other areas.
- Banking facilities: in areas where banking infrastructure is well developed, the market grows at a faster rate than in areas where such infrastructure is poorly developed.
- Peace and security: in countries where political and social disturbances are infrequent the market grows at a faster rate than others.

Learning Activity

Forecast the demand for any commodity in your area, show how culture, religion and season affect the elasticity and hence the demand.

- **Demand forecasting**

Dear learner, do you know how to forecast demand? What are the steps and variable taken into account in the forecast?

Demand forecasting is involved with the estimation of the future demand of a given product on the basis of the past and present demand data. This forecasting is helpful in that it helps the

producer to decide how much to produce and hence how much input to use so as to get maximum profit without wasting the inputs and the outputs. Forecasting can be done in different ways. But the most commonly used techniques are the following.

a) **Least square method**: - In forecasting demand using this technique, the trend of demand in the last few years (mostly not less than 5 years) is determined by a linear trend equation derived from the previous demand situation. It is given by the linear relationship as Y= a + bT where Y is the dependent (influenced variable) and T is the independent variable (influencing variable). From this equation the coefficient a and b can be determined to know the trend of the demand.

Example

T	**Y**	**TY**	**T^2**
0	10	0	0
1	13	13	1
2	14	28	4
3	17	51	9
4	18	72	16
5	18	90	25
6	19	114	36
7	20	140	49
8	22	176	64
9	23	207	81
10	22	220	100
11	24	264	121
12	24	288	144
13	25	325	169

Where T=time N= number of observation
Y= demand

$\sum T = 91 \sum Y = 269$ T=6.5 Y= 19.21

The coefficient "b" can be calculated by using the following formula

$$\frac{\sum TY - n\bar{T}\bar{Y}}{\sum T^2 - n\bar{T}2} = \frac{1998 - 14(6.5X19.21}{819 - (14)(6.5)2}) = 1.097$$

a= $Y - bT = 19.21 - 1.097x6.5 = 12.08$

So the trend equation now becomes Y= 12.08 + 1.097 T

This means for each additional units of time, the demand will change by 1.097 and hence the demand for the coming year can be determined by substituting the appropriate value of T in the equation.

This trend analysis approach can also be used to forecast both output and input prices and hence input costs can also be forecasted by using the same approach.

Note; - In order to use this forecasting technique, we should have at least a minimum of a five years time series data on the issue under consideration.

b) Chain ratio method:- The potential sale of a product may be estimated by applying a serious of factors to a measure of aggregate demand. For example, a given dairy producing and processing enterprise can estimate the demand for dairy products (potential sale of dairy products) for the coming few years in the following way.

Example if:

1. Total no of population in the region …………………. 1, 000,000
2. Proportion of consumers of product X ……………….. 0.5
3. Total no of consumers of product X …………………..500,000
4. Average annual amount of consumption ………………. 20 Kg / consumer
5. Total amount of consumption of product X in a year......10, 000,000

Once the total amount of consumption of product X in a year is obtained, then it can be multiplied by the annual growth rate of population to estimate the potential demand in each year. So if 10,000,000 is the total annual consumption of the product by all the consumers and if 2% is population growth rate, then the potential sale for each year can be

Year 0 …………………….10, 000,000

Year 1 …………………….10, 000,000 + 2/100X 10,000,000 = 10,200,000

Year 2……………………..10, 200, 0000 +2/100X 10,200,000 = 10,404,000

Supply is defined as the ability and willingness of producers/suppliers to provide a certain amount of products to the market.

The quantity that producers supply is also affected by a number of factors, the most important being:

i) Price of the goods/products on the market; As the price of the products/commodities increase, the supply of that specific commodity will also increase.

ii)) Price of inputs/costs of production; - as the price of inputs /cost of production increases, the supply of the product which requires this inputs will decline.

iii) Technological factors; - As there are more technologies to improve the production/supply of a product, the supply of that product also increases.

iv) **Storage possibilities; -** As there are more storage possibilities, the supply of a product also increases.

Market equilibrium

Market Equilibrium (Price) is the (price) level where quantity demanded is equal to quantity supplied. It is also called market clearing (price) level because all the commodities provided for market are sold in the market since the demand is there. The price level at this intersection point is called equilibrium price and the quantity at this level is called equilibrium quantity.

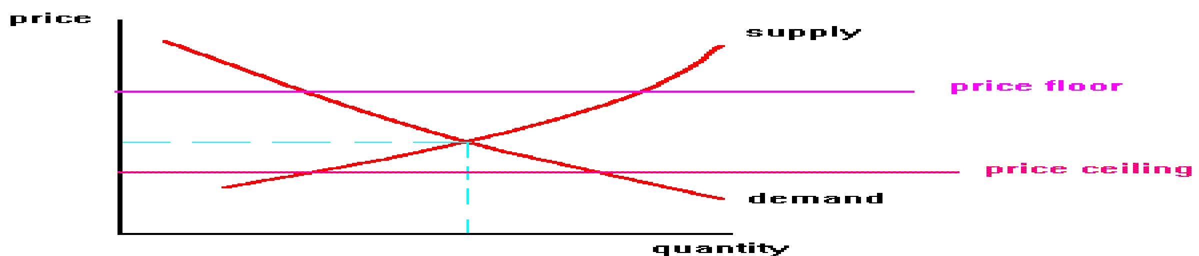
- **Government intervention to stabilize price**

Dear learner in this part you will shortly see the role of government intervention to stabilize prices. Moreover, you will identify the two consequences of government interventions on the market. These are: setting of price ceiling and price floor.

Setting of Price ceiling and price floor is important tools that government uses to stabilize price. Government use floor price when it is thought that producers are in danger. Floor Price plays a significant role when it is set above equilibrium price.

Government intervention through price ceiling is done when it is thought that consumers are hurt. Price ceiling work better when it is set below equilibrium price. The intervention of government to correct market imperfection by using ceiling and floor prices can be illustrated by using the following graph.

Price Ceilings and Floors



As can be seen in the above figure, the equilibrium price is achieved at the point of

intersection of demand and supply. But when there is market disequilibrium in the form of excess supply, floor price (minimum legal price) above the equilibrium price will be charged to safeguard the suppliers and this makes the original supply curve to shift upward and meet the demand curve at the level of the floor price so as to create a new equilibrium level of supply which is of course less than that of the original.

When there is market disequilibrium in the form of excess demand, ceiling price (maximum legal price) below the equilibrium price will be charged to safeguard the consumers and this makes the original demand curve to shift downward and meet the supply curve at the level of the ceiling price so as to create a new equilibrium level of demand which is of course less than that of the original.

- **Producer's surplus of farm products and Its Determinants**

The producer's surplus is the quantity of the produce which is or can be made available by the farmer to the nonfarm population. In any developing economy the producer's surplus of farm products plays a significant role. This is the quantity which is actually made available to the non producing population of the country. From the marketing point of view this surplus is more important than the total production of commodities. The arrangements for marketing in the expansion markets have to be made only for the surplus quantity available with the farmer and not for the total production.

The rate at which agricultural production expands determines the pace of agricultural development while the growth in the marketable surplus determines the pace of economic development. Here the knowledge of marketed and marketable surplus helps the policy makers, as well as the traders in the following areas.

The producer's surplus is of two types

i) Marketable surplus

Marketable surplus: the quantity of the producer which can (or should) be made available to the market.

- It is a theoretical, ex-ante concept of producer's surplus.

The marketable surplus is the residual left with the farmers-producer from the total production, after accounting for the on farm requirement of the product in terms of family consumption, seed, feed, payment (kind) to labor, payment to artisans, etc.

Thus may express as: $m_b = p - c$

ii) **Marketed surplus**

It is that quantity of the produce which the producer-farmer actually sells in the market, irrespective of his requirements for on-from consumption.

-It is an ex-post concept, may be greater, less or equal to the marketable surplus.

M_b = production – on farm consumption requirement- marketable

M_t = production – quantity retained for on farm Consumption. - marketed

M_t =, >, < M_b, dear learner, the relationship between marketable surplus and marketed surplus can be among the following

I. $Mt > M_b$ ⟶ this situation is termed as distress sale.

- to meet cash needs (unavoidable);
- no capacity for storage;
- underestimation of on-farm consumption requirement;
- High price at the time of harvest.

II. $M_b > M_t$

- low prices at the harvest time;
- no demand (transportation, market., government restriction;
- better intention capacity of farmers;
- Over estimation of on-farm consumption requirement.

III. $Mb = Mt$

This situation is particularly observed in case of perishable commodities & non- food crops.

Learning activity 1

Dear learner, visit one specific local market near to your surroundings, and list at least 10 agricultural products which are offered to the market on your visiting day. Then, discuss the unique features of each agricultural product; Analyze and evaluate the pros and cons of its unique features on the economic development (considering gender aspects).

Learning activity2

Forecast the demand for any commodity in your area, show how culture, religion and season affect the elasticity and hence the demand.

Summary

The central point of this section emphasizes that although marketing in agricultural market is similar in principle to that of the industrial market, there are distinct differences that must be understood for effective marketing. These differences are caused by the perishablity, seasonality and bulkiness of agricultural products. The importance of agricultural marketing and production surplus of agricultural products are discussed. The factors led to the growth

in agricultural marketing have also been identified in the section. Finally, the producers' surplus of agricultural commodities is briefly examined. The producer's surplus is the quantity of the produce which or can be made available by the farmers to the non-farming population.

Chapter Two

2. Marketing Functions, Costs and Efficiency

2.1 Approaches to the Study of Agricultural Marketing

Marketing is a subject, which bristles with wide and varied problems. It includes the services and functions of different specialized institutions and middlemen. Different commodities have special marketing problems therefore the results of the study of one commodity may not be applicable to other commodity. Also the same commodity will have different problems in different regions. Various approaches have been suggested and used to study marketing problems. These are functional, institutional, commodity and behavioral approaches.

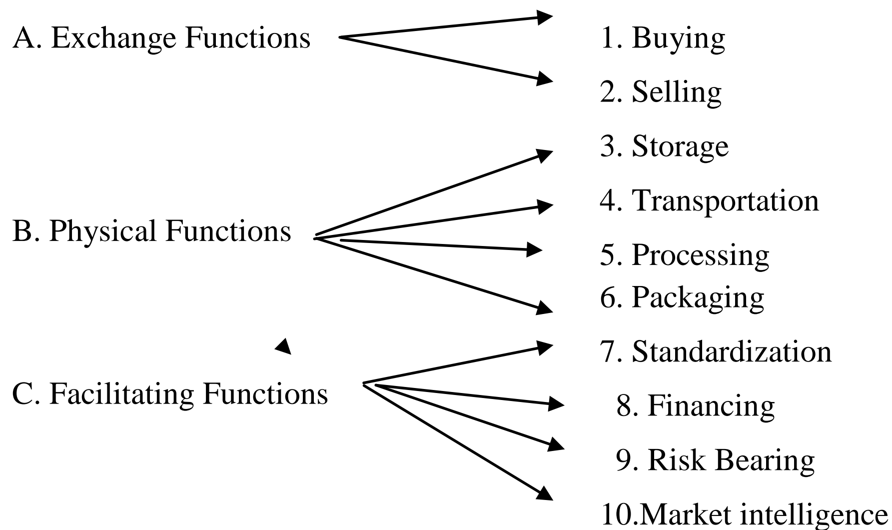
Functional Approach

Agricultural marketing involves in its simplest form the buying and selling of agricultural produce. In olden days when the village economy was more or less self-sufficient the marketing of agricultural produce presented no difficulty as the farmer sold his produce to the consumer on a cash or barter basis. One method of classifying the activities that occur in the marketing processes is to break down the processes in to functions. A marketing function may be defined as a major specialized activity performed in accomplishing the marketing process. Any listing of functions must be recognized as an arbitrary one.

In modern marketing, the agricultural produce has to undergo a series of transfers or exchanges from one hand to another before it finally reaches the consumer. A marketing function is an act, operation on service by which the original producer and the final consumer are linked together. Marketing consists of many operations and an operation may be performed several times in the marketing process.

The functional approach splits down the field of marketing into a few functions. This method analyses in detail the specific functions of marketing such as buying, selling, transportation, storage, standardization, grading, financing, risk taking and marketing research. Any listing of marketing functions is an arbitrary one. The functions falling under the scope of marketing may be listed one after the other or grouped under certain major cases or categories.

Marketing functions can be broadly classified as following:-



A. Exchange Functions

The process of passing goods into the consumer's hands is called function of exchange. As goods move through many hands before reaching the final user, title changes several times. The exchange functions of marketing are the heart of marketing. It includes buying, assembling and selling.

- **Buying and Assembling**

The marketing concept holds that the needs of the customer are of paramount importance. A producer can be said to have adopted a market orientation when production is purposely planned to meet specific demands or market opportunities. For example, a contract farmer, who wishes to meet the needs of a food processor, manufacturing wheat flour and pasta, will produce only improved bread wheat variety seeds which can attract his potential customers.

Buying is the first step in the process of marketing. Buying involves careful planning and needs setting up of policies and procedures. The following points are considered before a particular product is bought.

i) What to buy (Product)?
ii) When and how much to buy? (Time and quantity)
iii) From whom and where to buy? (Source)
iv) On what terms and conditions and prices? (Price)

- **Assembling** starts after the goods have already been purchased. It is a function separate from buying. Buying involves transfer of ownership of the goods where as assembling involves creating and maintaining of stock of goods purchased from different sources. The problems encountered in assembling of agricultural products are:
  i) Seasonal production
  ii) Difficulties in controlling quantity and quality
  iii) Non- availability of information about sources of supply
  iv) Low quantity of marketable surplus

- **Selling**

  The function of marketing is to ensure that the right product is made available at the right place, in the right quantity, at the right price, at the right time and under the right impressions to the consumer. All these righteousness is made possible by performing the sales function. Through selling function desires are created hence it is called as **creative function.** Selling is also often referred to as **distribution function** because distribution makes goods move from the place of production to the place of consumption.

Thus buying, assembling and selling functions are directly concerned with change in the ownership of goods. They are complementary in nature. For every sale there is a purchase and for every purchase there must be sale. And, assembling precedes a sale and assembling follows buying.

Each of these functions adds value to the product and they require inputs, so they incur costs. As long as the value added to the product is positive, most firms or entrepreneurs will find it profitable to compete to supply the service.

Physical Functions

The physical functions are those activities which involve handling and movement of the actual commodity itself. They are involved in solving the problems of when and where to do the marketing. These include:

Storage

Dear learners, virtually all agricultural products are biological and seasonal. While the demand for agricultural products are generally continuous throughout the year. Many of the outputs of agriculture are harvested during relatively short period of the year. The grains, cotton, tobacco, fruits, and vegetables are all highly seasonal in nature. Even the production of livestock, egg, and dairy products, though continuous throughout the year, has wide variations between the high and low periods of production. The desire for these products by consumers, however, is often quite constant throughout the year.

Hence the need for storage to allow a smooth and preferably, uninterrupted flow of product into the market is very essential. Dealing with a biological product, the grower does not enjoy the same flexibility as the manufacturing counterpart in being able to adjust the timing of supply to match demand. It would be an exaggeration to suggest that a manufacturer can turn production on and off to meet demands. Manufacturers have also constraints but they have more alternatives than does the farm producer. A manufacturer can for example, work overtime, sub-contract work, and can also increase or decrease productive capacity to match demands.

Both growers and consumers gain from a marketing system that can make farm produce items available when needed. A farmer, merchant, cooperative, marketing board or retailer who stores product provides services. That service costs money and there are risks in the form of wastage, slumps in market demand and prices as the provider of storage is entitled to a reward in the form of profit.

Transportation

Dear learners, imagine the types of products you consume each day. You are able to consume varieties of products coming from different corners. Products must be moved from where they are produced in to the area where they will be processed and consumed. The transport function is one of the means that make the product available where it is needed. For an effective and efficient function of transportation, it is required to consider alternative routes to meet timeliness, maintain product quality and minimizing shipping costs.

The wide variety of food available in our grocery stores at all times of the year would not be possible without modern transportation. Effective transport management is critical to efficient marketing. Whether operating a single vehicle or a fleet of vehicles, transportation has to be carefully managed, including cost monitoring - operations on different road types, fuel and lubrication consumption and scheduled and remedial maintenance and repair.

Processing

Most agricultural products are not in forms suitable for direct delivery to the consumer when they are first harvested. Rather they need to be changed in some form before they can be used.

The task of processing is sometimes not included to the list of marketing because it is a form of changing activity. However, processing need to be included as a marketing function. The form of changing activity is one way that adds value to the product. Changing E.g., green coffee beans into roasted beans, cotton into cloth, wheat into flour and bread, sugarcane into sugar etc. increases the value of the product because the converted product has greater utility to the buyer. The form the produce is to be changed and the methods to be used in bringing about such changes are marketing decisions. Some years ago for instances, when Ethiopia was looking to expand its tea plantation business, a prototype manufacturing plant was established. The plant was capable of curing the tea and packing it in individual tea bags. At that point, tests were undertaken and compared with others already on the market, found encouraging results.

In the course of the marketing research however, it was discovered that ninety percent of the black tea consumed is blended and not the pure variety placed in the tea bags by the Ethiopians. Timely marketing research would have contributed a great deal to inform and control of such illegal acts. In the past decades ago, Ethiopia did not have the acreage of tea, nor the resources to develop a tea blending facility. Similarly, a producer of fresh fruits may have pulping and/or canning facilities but if potential buyers want the flexibility of using the fruits in a variety of ways, then these stages of processing serve to reduce utility and value.

Processing food products is becoming more important as societies culture and feeding habits changes over time and as the country enters more into the international market. Today, as a result of high growth rate of urban population, there is an increase of marketing activity in general and the processing functions of farm products in particular.

i) Packaging

Packaging is enclosing commodity in a container. This is a requirement for nearly all farm products, in all stages of marketing. It is an activity of designing and producing the container or wrapper for a product. The container used in different stages of marketing may be quite different, and the three general types of packages or containers may include:

- Containers for handling from the farm to and through assembly and processing facilities.
- Shipping containers
- Consumer packages

Technological developments in packaging of bulk foods such as meats, dairy products, and fruits and vegetables have important implications in reducing the costs of transportation. Packaging contributes to more efficient marketing by:

i) reducing bulk (e.g. cotton balling and compression);
ii) facilitating handling;
iii) reducing shrinkage and spoilage (canned meats, fruits);

iv) facilitating quality identification and product selection by consumers (eggs in cartons);
v) assisting in advertising and better merchandising (cheese in cartons);

Packaging can improve profitability and efficiency of the physical distribution functions. The design of packaging is capable to contribute to an improved performance of the supply chain in a variety of ways and some of these include: By altering the shape and dimensions of the packaging more product can be displayed on retailers' shelves (e.g. changing from round to square containers or glass jars helps maximize the use of limited retailing space since far more square glass jars can be placed on a given area of retail display space than can round shaped jars).

The package must be capable of performing under all the temperature and humidity conditions as it passes through different channels of distribution. This means that to select or design an appropriate packaging for particular for farm produce items, the chosen distribution channel and its environmental conditions must be thoroughly analyzed and understood.

Product packaging also has a role in helping differentiate products of the brand names who compute in the same market segment. Distinctive product packaging, may be in the form of shape, size, coloring, or print can help in differentiating.

ii) Facilitating Functions

The facilitating functions include product standardization, market promotion, financing, risk bearing and market intelligence. Facilitating functions are those activities which make the exchange process possible. Marketing, in simple terms, is the act of supplying products to someone in exchange for something perceived to be of equal or of greater value, (Mostly in a given sum of money). Facilitating functions are not direct parts of either the exchange of title or the physical movement of produce.

Standardization and grading:- concerned with the establishment and maintenance of uniform measurements of produce quality and/or quantity. This function simplifies buying and selling as well as reducing marketing costs by enabling buyers to specify precisely what they want and suppliers to communicate what they are able and willing to supply with respect to both quantity and quality of product. In the absence of standard weights and measures trade either becomes more expensive to conduct or impossible altogether. Among the most notable advantages of uniform standards, are:

- price quotations are more meaningful
- the sale of commodities by sample or description becomes possible

- small lots of commodities, produced by a large number of small producers, can be assembled into economic lots if these supplies are similar in grade or quality
- Faced with a range of graded produce the buyer is able to choose the quality of product he/she is able and willing to purchase.

Quality differences among agricultural products arise for several reasons. Quality differences may be due to production methods and/or because of the quality of inputs used. Technological innovation can also give rise to quality differences.

In addition, a buyer's assessment of a product's quality is often an expression of personal preference. Thus, for example, in some markets a small banana is judged to be in some sense 'better' than a large banana; and white maize is 'easier to digest' than yellow maize. It does not matter whether the criteria used in making such assessments are objective or subjective since they have the same effect in the marketplace. What does matter in marketing is to understand how the buyer assesses 'quality'. If an objective standardization is not perceived by consumers, it is the same as those items which are not graded.

iii) Financing

In almost any production system there are inevitable lags between investing in the necessary raw materials (e.g. seeds, fertilizers, packaging, flavorings, etc.) and receiving the payment for the sale of produce. During these lag periods some individual or institution must finance the investment. The question of where the funding of the investment is to come from, at all points between production and consumption, is one that marketing must address.

A common marketing problem that exists in many developing countries is the low level of income leading to low levels of demand for many farm products. The challenge is to marketing because it is the income availability that influences demand.

Marketing is also concerned with the financing of the enterprise itself. Here again some creative solutions can be developed, can look to several alternatives such as:

- development banks
- commercial banks
- shares issues
- credit co-operatives and/or credit unions

Where these sources of finance are considered inappropriate, or are simply not available or not sufficient to a particular enterprise, a strategic alliance in the form of a joint venture could be the answer. These are partnerships formed to exploit market opportunities more effectively and efficiently than either party can on its own. An enterprise, in a developing country, may engage in a joint venture with either an indigenous partner and/or with a foreign partner. The

agreement between parties to a joint venture normally specifies their respective contributions of resources, share of management control, profit and risk.

Whatever the source of finance under consideration, marketing has a role to play in searching for appropriate sources of finance. Moreover, the marketing department together with other departments or specialties should prepare and analyze such marketing projects that will expand the activity of the enterprise. Those responsible for developing these proposals are best placed to evaluate the compatibility between the market opportunity under consideration and the alternative modes of financing it.

Risk bearing

In both the production and marketing of produce the possibility of incurring losses is always present. Physical risks include the distraction or deterioration of the produce through fire, excessive heat or cold, pests, floods, earthquakes etc. Market risks are those of adverse changes in the value of the produce between the processes of production and consumption.

Changes in demand structure E.g., due to change in consumer tastes, one if the many reasons that affect marketing demand. Risks can also arise in the input market when input prices increase to a high level in way that can affect the affordability of the items. There could also be shortage and delay in the supply of raw materials and other inputs. All of these risks are borne by the organization and consumers.

Risk bearing is often a little understood aspect in marketing of farm products. For example, when making judgments as to whether a particular price is a 'fair price' the usual reference point is the producer or supplier's costs. However the risks created are rarely taken into account by those passing judgment and yet, almost inevitably, there will be occasions when the risk taker incurs losses. Stocks will spoil, markets will fall, cheaper imports will enter the country, and consumer tastes will change, and so on.

Risk from the time an agricultural product is harvested until it is in the hands of consumers; there is risk of financial losses because of destruction, quality deterioration, price declines. This risk is a cost, which must be paid for by some one. Risk is relatively more important in agricultural sectors in contrast to other sectors. Agricultural products are biological and are highly affected by natural conditions as weather, rainfall, natural hazards, etc. Moreover, agricultural products are perishable and to maintain their quality for long time it may be costly and sometimes become impossible. Thus, the danger of loss due to quality deterioration is very high.

Another reason why agricultural marketing is more risky is because agricultural product prices are likely to fluctuate substantially and hence prices are highly volatile to different conditions. The main reason may be that for most agricultural products the price elasticity of demand and income elasticity of demand are below one inelastic. The presence of such

substantial risk contributes to higher margins and other unsatisfactory conditions as a direct cost factor, such as cost of insurance premium.

Market intelligence

As far as possible, marketing decisions should be based on accurate information. The process of collecting, interpreting, and disseminating information relevant to marketing decisions is known as market intelligence. The role of market intelligence is to reduce the level of risk in decision making. Through market intelligence the seller finds out what the customer needs and wants. One means is to find out through sales, and/or marketing researches to find out which products are right for the market, which channels of distribution are most appropriate, how best to promote products and what prices are acceptable to the market. As with other marketing functions, intelligence gathering can be carried out by the seller or another party such as a government agency, the ministry of agriculture, or some other specialist organizations.

Institutional Approach

The institutional approach of marketing problems implies a study of agencies and institutions, which perform various functions in the marketing process. The nature and character of various middlemen and other related agencies involved in the movement of the product must be studied. The agencies and institution which perform various marketing functions are classified as follows:-

A) Merchant middlemen
- Retailers
- Wholesalers

B. Agent middlemen
- Brokers
- Commission men

C. Speculative middlemen

D. Facilitative organizations

These agencies vary widely in size and ownership. They get their reward in the form of marketing margins. This approach helps us to find answers to the problems of 'who does what' in the marketing process, whether the marketing and markets margin of the agency is commensurate with the services rendered, which government regulations are necessary so that their unlawful activities may be minimized or stopped. There has to be adequate understanding of marketing systems. The "institutional," approach is based on an examination of the different kinds of middlemen or agencies or institutions involved in the marketing system, as follows:-

Middlemen are those individuals or business firms that specialize in performing the various marketing functions involved in the purchase and sale of goods as they are moved from producers to consumers.

A) **Merchant middlemen**

These middlemen have properties in common in that they take title to, and therefore own, the products they handle. They buy and sell for their own gain. Merchant middlemen can be divided into two:

B) **Retailers** – are those merchant middlemen that buy products for resale directly to the ultimate consumer of the goods. He/she is the producer's personal representative to the consumer. From the functional viewpoint, the retailer may perform all of the marketing functions. They are mostly large in number.

C) **Wholesalers** – are those merchant middlemen or manufacturers that sell to retailers, other wholesalers, and/or industrial users but do not sell a significant amount to ultimate consumers. Wholesalers make up a highly heterogeneous group of varying sizes and characteristics.

One group of wholesalers are the local buyers or countryside assemblers who buy goods in the producing area directly from farmers and transport the products forward to the larger cities where they are sold to other wholesalers and processors. For example, an assembler may buy barley from farmers in rural areas and transport the product in bulk to Addis Ababa and sell it to other wholesalers in the city. These wholesalers/assemblers/ can handle different agricultural products or can specialize in handling a limited number of products. They may be cash-and-carry wholesalers or service wholesalers who will extend credit and offer delivery and other services.

Some wholesalers provide credit to producers for the purchase of input and even some times give consumption credit by entering the farmer into contractual agreement to provide his product at the time of harvest. It is a form of selling his product before harvest. Though such agreements could minimize risk, the farmer, may also lose the opportunity of benefiting from price rise.

D) **Agent Middlemen**

Agent middlemen, as the name implies, act only as a representative of their clients. They do **not take title to** and therefore **do not own**, the products they handle, while merchant middlemen (wholesalers and retailers) secure their income from a margin between the buying and selling prices, agent middlemen receive their income in the form of fees and commissions. Agent middlemen in reality sell services to their principals, not physical goods to customers. In many instances, the power of agent middlemen is market knowledge and "know-how" which they use in bringing buyers and sellers together. Though the names may differ somewhat, agent middlemen can be broken down into two major groups, commission-men and brokers.

E) **Commission-men** are usually granted broad powers by those who consign goods to them. He normally takes over the physical handling of the product, arranges for the terms of sale, collects, deducts his fee, and remits the balance to his principal.

F) **Brokers**: - usually does not have physical control of the product. He usually follows the directions of his principal closely and has less discretionary power in price negotiations than commission-men. He just acts in between the sellers and buyers. Brokers link sellers and buyers and assist in negotiation. In agriculture, livestock commission firms and grain brokers on the grain exchanges are good examples of those commission-men and brokers, respectively.

G) Speculative middlemen

Speculative middlemen are those who take title to products with the major purpose of profiting from price movements. All merchant middlemen, of course, speculate in the sense that they must face uncertain conditions. Usually, however, wholesalers and retailers attempt to secure their incomes through handling and merchandizing their products and to hold the uncertain aspects to a minimum. Speculative middlemen seek out and specialize in taking these risks and usually do a minimum of handling and merchandizing. They often attempt to earn their profits from the short-run fluctuations in prices. Purchases and sales are usually made at the same level in the marketing channel. For example, livestock speculators buy goats or sheep today and sell them back today or tomorrow in the same yards. Speculative middlemen often perform a very important job as a competitive force in the maintenance of an adequate pricing structure.

H) Facilitative organizations

Facilitative organizations assist the various middlemen in performing their tasks. Such organizations do not, as a general rule, directly participate in marketing process as either merchants or agents. One group of these organizations furnishes the physical facilities for the handling of products or for the bringing of buyers and sellers together. They take no direct part in the buying and selling of the products themselves. However, they establish "the rules of the game" which must be followed by the trading middlemen, such as hours of trading and terms of sale. They may also aid in grading, arranging and transmitting payment and the like. They receive their income from fees and commissions from those who use their facilities. Another group of organizations falling in this general category is the trade associations. The primary purpose of a large majority of these organizations is to gather, evaluate, and disseminate information of value to a particular group of trade. They may carry on research of mutual interest.

Each type of middlemen that participate in the movement of goods from producers to consumers falls in one of the above category of middlemen. These middlemen are very important and without them it would be impossible to perform marketing activities. This module uses the first and the third approaches to describe agricultural marketing concepts, strategies, principles, etc.

The Commodity Approach

Another way of treating the subject is by describing the marketing of a specific commodity from farm to consumers. This is called the "commodity" approach. The problems of marketing of agricultural products differ from commodity to commodity mainly because of the seasonality of production, the variations in its handling, storage, processing and the number of middlemen involved in them. By this approach, similar commodities are sometimes grouped together and described as grain marketing, fruit marketing, livestock marketing, vegetable marketing, etc, or even sometimes each grain crop can be described independently as; wheat marketing, maize marketing, barely marketing, etc, each fruit as; banana, orange, etc. each vegetable as; potato, tomato, etc marketing. This necessarily involves a considerable amount of duplication because of many similarities among commodities with respect to marketing processes. The main advantage of this approach is that it is concrete since all work relates to a specific product but it is a time consuming 'process and often results in excessive repetitions.

Behavioral System Approach

This approach refers to the study of behavior of firms, institutions and organizations, which exist in the marketing system for different commodities. The marketing process is continually changing in its organization and functional combinations.

2.2. Marketing Channels, Costs and Margins for Farm Products

Dear learner, do you have any ideas about marketing channels, margin and costs of farm products? (You can write your responses on the spaces given below) (5 minutes)

i. Marketing Channels

Dear learner, do you know what a marketing channel do mean?

There are different definitions for marketing channels based on the breadth and width of interest of analysis. Dear learner, these are among the most common and comprehensive definitions on the topic.

1. According to Moore “The chain of intermediaries through whom the various food grains pass from producers to consumers constitutes their marketing channels”.

2. Kohls and Uhl have defined marketing channels as alternative routes of product flows from producers to consumers.

- **Factors affecting length of marketing channels in agricultural marketing**

Marketing channels for agricultural products vary from product to product country to country, lot to lot and time to time. For example, the marketing channels for fruits are different from those for food grains. Packagers play a crucial role in the marketing of fruits. The level of the development of a society or country determines the final form in which consumers demand the product. For example, consumers in developed countries demand more processed foods in a packed form. Wheat has to be supplied in the form of bread.

- **Marketing channels of distribution**

The course taken in the transfer of the title of a commodity constitutes its channel of distribution. It is the route taken by a product in its passage from its first owner i.e. producer to the last owner, the ultimate consumer.

Important channels of distribution are:

1. Producer or manufacturer – Retailer – Consumer.
2. Producer or manufacturer – Consumer.
3. Producer or manufacturer – Wholesaler – Retailer – Consumer.
4. Producer – Commission agent.

Dear learner, the followings are also highlights of some factors determining choice of channels.

Nature of the product, Price of the product, No. of units of sale, Characteristics of the user & Buyers and their buying units.

- Low priced articles with small units of sale are distributed through retailers.
- High price special items like radios, sewing machines etc are sold by manufactures and then agents.
- Public services like gas, electricity and transport are usually sold directly to the consumer.

ii. Marketing Margin

Consumer food expenditure (or food bill) comprise of **marketing** components and **farm** components. Changes in these marketing and farm **'shares'** of the food bill indicates the trends in **costs, profits** and **services** provided by farmers and food marketing firms as well as the performance of the farm sector compared to the food marketing sector. The proportion of the consumer expenditure that goes to the food marketing firms is referred to as **Marketing Margin**. Generally marketing margin refers to the difference between the price paid and received by a specific marketing agency, such as a single retailer, or by any type of marketing

agency such as retailers or assemblers or by any combination of marketing agencies such as the marketing system as a whole.

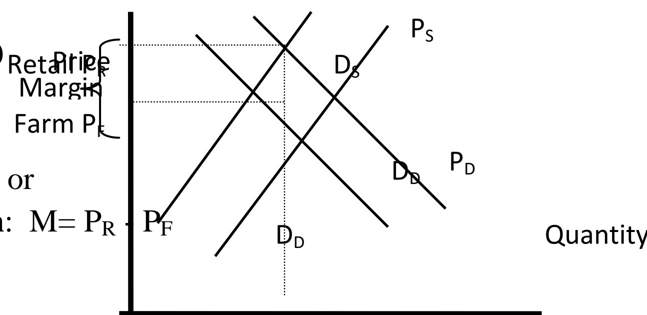
- **Concept of Marketing Margins**

Marketing margin may be defined in 2 ways: (1) as the differences between consumer retail price and what farmers receive; (2) as the price of marketing services provided.

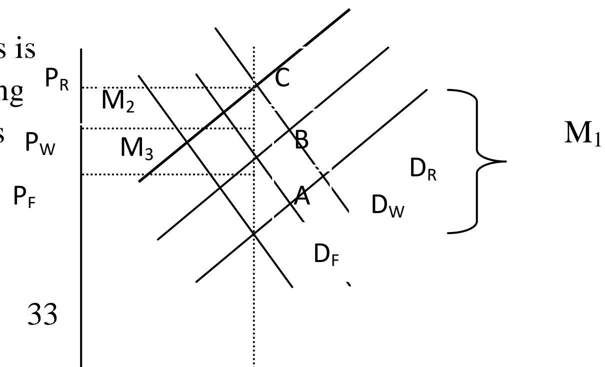
1. **Price Difference between Two Marketing Stages**: The difference between what the **consumers pays** for food and what the **farmer receives** - i.e. a marketing margin is simply the difference between the **primary** and **derived demand** curves for a particular product. Primary demand is determined by the response of the ultimate consumers and this is usually based on the retail price and quantity purchased by consumers. Primary demand is in some sense a joint demand for all the inputs in the final product. Thus a food product at the retail (i.e. the primary demand) may be divided into two inputs: the **farm-based components** and the **processing-marketing components**. The derived demand for the farm product can be obtained by subtracting the cost of all marketing components from the primary demand (i.e. $D_D = P_D - M_C$). It can therefore be seen that the farm level function or primary supply (P_S) represents the derived demand for the farm component of the final product (D_D). Thus the derived demand is based on price-quantity relations that exist either at the point where products leave the farm or at intermediate point, where they are purchased by wholesalers or processors.

The primary supply (P_S) represents the price-quantity relationship at the producer level. The derived supply (D_S) at the retail level is derived from the primary supply (P_S) by adding an appropriate margin. Thus, a retail price is established at the point where the primary demand (P_D) intersects the derived supply (D_S) as shown in the figure.

The farm-level price is based on derived demand (D_D) and primary supply (P_S). The difference in the two prices is the marketing margin or **Absolute Marketing Margin**: $M = P_R - P_F$



Absolute Marketing Margin (AMM): This is the gap between prices at different marketing levels (farmers, wholesalers, retailers). Thus $M_1 = P_R - P_F$ is AMM at farmer level
$M_2 = P_R - P_W$ is AMM at retail level



$M_3 = P_W - P_F$ is AMM at wholesale level

Q_d

Relative Marketing Margin (RMM) It is the ratio of AMM to price at which the product is bought. RMM = AMM/ P_B. The relative margin from farmer to retailer is $RMM_{FR} = M_1/P_R$.

Gross Marketing Margin

This is obtained by multiplying the AMM by the quantity marketed. GMM is represented by area $P_F AC P_R$ or GMM= $Q_d (P_R - P_F)$.

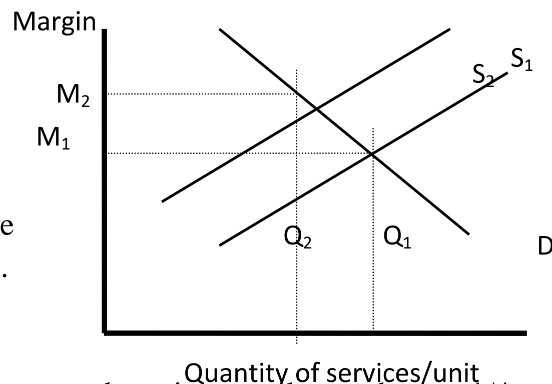
Net Marketing Margin (NMM)

Here the concept takes account of fixed cost, taxes and subsidies - i.e.

NMM = GMM - FC - T + S

2. **Differences in Prices Due to Cost of Services**: The marketing margin may also be defined as the price or cost marketing services. Marketing costs are the return to factors in the marketing process: profits, wages, interest rents. The marketing services include items such as assembly, processing, transportation and retailing. These services are the time, place, form utilities provided by the marketing system. That is, the marketing margin is the price of all utility added by marketing firms, and this price includes marketing firm's **expense**s and **profits**. The supply relation for these marketing services is defined in terms of the marginal cost curve for the services, which in turn depends on input prices. However, marketing services also have demand relation. A marketing margin will thus depend on the particular demand and supply relations for the services, and in this regard, changes in margins may be the result of shits in the supply or demand relations for services as shown in the figure below.

The demand curve D is the market demand for services; the supply for services are S_1 and S_2. As a result of higher input prices, or service prices, marketing margins will increase from M_1 to M_2 and quantity of services purchase by consumers will decrease from Q_1 to Q_2.



Production cost has fallen, while marketing costs have increased over the past1/4 century due to:

1. Production is more specialized in location - fall in production Cost but increases transport cost.
2. Away from home eating increases marketing cost.

Marketing margin of a Middleman: There alternative measures may be used. The three alternative measures which may be used in estimating market margins are.

(a) Absolute margin of ith middlemen (Ami) = PRi (PPi + Cmi)

(b) Percentage margin of ith middlemen (Pmi) = $\frac{PRi - (PPi + Cmi)}{PRi} \times 100$

(c) Mark-up of ith middleman (M2) = $\frac{PRi - (PPi + Cmi)}{Ppi} \times 100$

Where,
PRi = Total value of receipts per unit (sale price)
Ppi = Purchase value of goods per unit (purchase price)
Cmi = Cost incurred on marketing per unit.
The margin includes profit to the middlemen and returns to storage, interest on capital, overheads and establishment expenditure.

Example **Table; - Price of Honey in the market channel**

Market chain participants	**selling price**
Producers' price	3.26br/kg
Rural assemblers price	4.5br/kg
Wholesalers' price	5br/kg
Retailers' price	6 br/kg
Consumers' price	6br/kg

$GMM_{RA} = \frac{\text{Assembler price-producer price}}{\text{Consumer price}} \times 100$

$= \frac{4.5-3.26}{6} \times 100 = 21\%$

$GMM_{w} = \frac{\text{Wholesaler price – Assemler price}}{\text{Consumer price}} \times 100$

$= \frac{5-4.5}{6} \times 100$

$= 8\%$

$GMM_{r} = \frac{\text{Retailers price-wholesalers price}}{\text{Consumers' price}} \times 100$

$= \frac{6-5}{6} \times 100$

$= 17\%$

Total Gross marketing margin= GMM_{ra}+GMM_{w} +GMM_{r}=21%+8%+17%=46%
Gross marketing margin of producers (GMMp) =100%-46%= 54%
So from the above calculation, it is clear that 21%, 8%,17% and 54% of the final consumers price is shared by rural assemblers, wholesalers, retailers and producers respectively.
Dear learner, however it is evident that market participants in a given market chain do not only get profit from the transaction. They also incur a cost in the marketing activities. The most important marketing costs which could possibly be incurred by the different market participants in a market chain can be described as follows.

iii. Marketing costs

The movement of products from the producers to the ultimate consumers involves costs which are called marketing costs. These costs vary with the channels through which a particular commodity passes through.

Eg: - Cost of packing, transport, weighting, loading, unloading, losses and spoilages.

- **Objectives of Studying Marketing Costs:**

1. To ascertain which intermediaries are involved between producer and consumer.
2. To ascertain the total cost of marketing process of commodity.
3. To compare the price paid by the consumer with the price received by the producer.
4. To see whether there is any alternative to reduce the cost of marketing.

- **Reasons for High Marketing Costs:**

Dear learner, these are among the major reasons contributing for high marketing cost:

1. High transportation costs
2. Consumption pattern – Bulk transport to deficit areas.
3. Lack of storage facilities.
4. Bulkiness of the produce.
5. Volume of the products handled.
6. Absence of facilities for grading.
7. Perishable nature of the produce.
8. Costly and inadequate finance.
9. Seasonal supply.
10. Unfair trade practices.
11. Business losses.
12. Production in anticipation of demand and high prices.
13. Cost of risk.
14. Sales service.

- **Ways of reducing marketing costs of farm products**

1. Increased efficiency in a wide range of activities between produces and consumers such as increasing the volume of business, improved handling methods in pre-packing, storage and transportation, adopting new managerial techniques and changes in marketing practices such as value addition, retailing etc.
2. Reducing profits in marketing at various stages.
3. Reducing the risks adopting hedging.
4. Improvements in marketing intelligence.
5. Increasing the competition in marketing of farm products.

A) Packaging costs:

Most produce needs packaging. Exceptions are generally larger fruits and vegetables such as pumpkins and water melons which may be transported in bulk. Leafy vegetables, such as cabbages, are also often transported in bulk. Here the outer leaves themselves act as a form of packaging by protecting the inner leaves. There is no packaging cost but it should be remembered that the outer leaves are often thrown away before sale and thus there is a cost in terms of product loss.

Packaging serves three basic purposes. Firstly, it provides a convenient way of handling and transporting produce. Costs would certainly be much higher if everything had to be carried and moved without any form of packaging. Secondly, it provides protection for the produce. The efforts which are continually being made to improve bulk packaging are designed mainly to improve the protection offered rather than to increase the convenience of the packaging from a handling point of view. Finally, packaging can be used to divide the produce into convenient units for retail sale and to make the produce more attractive to the consumer, thus increasing the price at which it can be sold. The more sophisticated the packaging, the greater the cost.

Calculating packaging costs

Assume that oranges are packed **20 kg** at a time in wooden boxes which, with occasional repairs, can be used for **10 trips**. A box costs $10, repairs and cleaning during its life costs **$2** and each time transporting back the empty box to the producing area costs **$1**.

Then the packaging cost per trip is...

[(original cost + repairs) ÷ no. of trips] + transport when empty or

($10 + $2) ÷ 10 trips + $1 = $2.20 per 20 kg and

$2.20 ÷ **20 kg** = $0.11 per kg

B. Transport costs

Transport costs are incurred by farmers when they take their produce to the market and by traders as they move the produce down the marketing chain to the consumer. Sometimes transport costs are very obvious because they involve the direct payment by a farmer or trader to a truck owner or, in some cases, boat owner on a per piece basis. In other cases such costs are less direct, for example when the trader, or even the farmer, owns and operates his own vehicle.

Calculating transport costs

Assume that there are **40 m^3** of space available in the truck to be used and that it costs **$500** to hire the truck. A container of **0.2 m^3** holds **8 kg** of tomatoes and a container of **0.4 m^3** holds **10 kg** of green peppers.

Then the transport cost for **tomatoes** per container and per kilogram is...

$500 ÷ (40 m^3 ÷ 0.2 m^3) = $2.50 per container

And $2.50 ÷ **8 kg** = $0.3125 per kilogram

While the transport cost for **green peppers** per container and per kilogram is...

$500 ÷ (40 m^3 ÷ 0.4 m^3) = $5.00 per container and $5.00 ÷ **10 kg** = $0.50 per kilogram

C. Product losses

If a trader buys one kilogram of produce from a farmer, how much of that one kilogram will he actually end up selling? And what will be the average price of what he sells? Post-harvest losses of produce, particularly fresh produce, can be quite considerable, both in terms of quantity and quality and considerably affect the selling price.

Calculating the cost of product losses

Assume that, at **10 percent** loss levels, **1 kg** of tomatoes purchased by the trader from the farmer results in **900 grams** (0.9 kg.) available for sale to consumers. The trader buys tomatoes from the farmer at **$5 per kilogram** and marketing costs are $2 per kilogram for the tomatoes originally purchased. The selling price of tomatoes is **$8 per kilogram**.

Then the costs are...
1 kg purchased at **$5 per kg** = $5.00
1 kg packed and transported at **$2 per kg** = 2.00

Total Costs = $7.00
Sales Revenue or **$8** x 0.9 kg = 7.20
Thus the margin to the trader = $0.20

Below is an example of the more usual **and wrong**, method of calculation.

1 kg purchased at **$5 per kg** = $5.00
1 kg packed and transported at **$2 per kg** = 2.00
10 percent losses or **$5** x 0.1 = 0.50
Total Costs = $7.50

Sales Revenue or **$8** x 1 kg = 8.00
Thus the margin to the trader = $0.50

The second calculation is clearly **wrong** because here the trader is seen to be obtaining revenue from produce which has already been "lost".

D. Storage costs

Storage is carried out in order to extend the period of availability of a crop to a consumer. In the case of staple food crops long-term storage is, of course, essential. The harvest period may be just a few months but the staple has to be consumed throughout the year. Storage can be carried out by the farmer, the trader (or marketing board) or by the consumer. With regard to more perishable crops, storage can be used to extend what is often every short period of availability.

Calculating storage costs

Assume that a warehouse is hired for **120 days** of the year at a total cost of **$600** and that the weighted average contents are **250 bags** of potatoes.

Then the storage cost is...

$600 ÷ 120 days = $5.00 per day
$5 ÷ **250 bags** = $0.02 per bag/day

Calculating storage costs over time

Assume that a trader buys potatoes at **$10 per bag** and keeps them in store for **4 months**. To do this he has to borrow money at **12 percent per year**.

Then the cost of bank interest is...**$10 x 0.04 (12% p.a. over 4 months)** = $0.40 per bag

Thus a realistic calculation of storage costs per bag for our consignment of potatoes is...

Storage charge for 120 days at $0.02 per day = $2.40
Interest charge of $0.40 per bag = 0.40
Total cost per bag = $2.80

E. Processing costs

The transformation of a product from one form to another clearly involves costs associated with the operation of the processing facility. In calculating marketing costs, however, we need

to consider two other important aspects of processing costs. Firstly, as with product losses, one kilogram of product purchased from the farmer cannot be compared with one kilogram of processed product sold to the consumer. We therefore need to ask, "how much will be sold to the consumer if one kilogram is bought from the farmer?" Secondly, there may be a by-product as a result of the processing and this by-product can often be sold. The value of the by-product must therefore be included in the calculations.

Calculating processing costs

Assume that a rice milling operation converts paddy at the rate of **70 percent** (0.7) and has saleable by-products equal to **25 percent** of the paddy weight. Processing costs per kilogram of paddy have been calculated at **$0.20 per kilogram** on the basis of the mill's total annual costs divided by the number of kilograms of paddy processed. The buying price of the paddy was **$1.50 per kilogram** and the by-products have a value of **$0.50 per kilogram**.

Then the processing cost per kilogram of paddy is...

One kilogram of paddy purchased = $1.50
Processing costs or **1 kg x $0.20** = 0.20
Total Costs = $1.70
Less the by-product revenue of **1 kg x 0.25 x $0.50** = 0.12

Break even selling price per kilogram of paddy = $1.58

Thus the break even selling price per kilogram of milled rice is $1.58 ÷ **0.7** = $2.25

It should be clear that calculation of marketing costs won't be easy as it is done in the above. There can be many intangible and other costs which can't be easily estimated. So inclusion of these cost values in the gross marketing margin to calculate the net margin will be a tedious work and may possibly result in inaccurate net margin values. So Gross margins are usually considered for evaluating the benefit of the participants in the market chain.

Learning activity

Make marketing survey in any farm products market and identify major chain actors in agricultural marketing and calculate each middlemen profit margin and costs incurred. Recommend how the margins could favor the produce?

Continuous assessment

Quiz and assignment

2.3 Marketing Efficiency

Introduction

Marketing efficiency is essentially the degree of market performance. It is a broad and dynamic concept. The term marketing efficiency refers to the effectiveness or competence with which a market structure performs its designated function.

It is the ratio of market output (satisfaction) to marketing input (cost of resources); an increase in ratio represents improved efficiency and vice versa. This means a reduction in marketing cost without reduction in consumer satisfaction indicates improvement in efficiency. A higher level of consumer satisfaction at higher marketing cost may mean increased efficiency if the additional satisfaction derived by consumer outweighs the additional cost incurred on the marketing process. But a change that reduces cost but also reduces consumer satisfaction need not indicate increase in marketing efficiency.

Increased efficiency is in the best interests of farmers, traders, processors, wholesalers, retailers, consumers and society as a whole. The efficiency of a marketing system is measured in terms of the level and/or costs to the system of the inputs, to achieve a given level and/or quality of output. Such inputs are generally in the form of land, finance, time, manpower and materials.

Typical outputs include the movement of a given amount of product to markets at specific distances, the supply of a particular level of service to target market segments and the supply of products at a target price. Hence resources are the costs and utilities are the benefits that comprise the marketing efficiency ratio. Efficient marketing optimizes the ratio between inputs and outputs.

- **Assessment of marketing efficiency:**

a) Technical or Physical or Operational efficiency:

It pertains to the cost of performing a function; Efficiency is increased when the cost of performing a function per unit of output is reduced. Improved operational efficiency is evident where marketing costs are reduced but outputs are either maintained or actually increase. Examples of operational efficiency gains would be the introduction of a less expensive method of storing grain or an innovative milk package that reduces energy costs when the product sits in retailers' refrigerators. Technological innovations are not the only avenue leading to higher levels of operational efficiency. An organization that improves its raw material procurement practices, by say centralizing purchases, buying in larger quantities or taking advantage of unit freight rates, is likely to increase operating efficiency.

In the same way, an organization that rearranges sales territories and distributes fewer but larger loads to each delivery point can improve its levels of operational efficiency. Physical losses as commodities produce or products move through the channels of distribution are another aspect of operational efficiency. The higher the losses, the lower the level of operational efficiency.

In practice, changes in the cost of marketing influence consumers' satisfaction, and efforts to increase the customer's utility often affect marketing costs. A new marketing practice that reduces costs but also reduces consumers' satisfaction may actually reduce the efficiency ratio. For instance, millers might improve efficiency by withdrawing 5 kg bags of meal from the market and sell minimum quantities of 10 kg bags. If a substantial number of consumers prefer to buy the 5 kg bag then the decrease in customer satisfaction could be greater than the gains made in cost reduction to the miller. The compromise which must be made between operational efficiency and customer satisfaction explains the difficulty of improving marketing efficiency. It is not difficult to reduce marketing costs by taking such measures as reducing the number of pack/bag sizes, eliminating packaging or reducing the number of retail outlets supplied but there may be a greater loss in customer satisfaction than is compensated for by the fall in marketing costs and retail prices. When evaluating any marketing change intended to improve marketing efficiency, both cost reductions and customer utility must be considered.
Marketing firms, operating within a competitive environment, are especially well motivated in seeking to increase operational efficiency. Although their goal may be higher profits, often the benefits of improved operations accrue to customers in the form of lower prices. Competition acts as a brake on the extent to which profits increase and limits any tendency for customer service and satisfaction levels to fall.

b) Pricing / Allocative efficiency :

System is able to allocate farm products either over time, across the space or among the traders, processors and consumers at a point of time in such as way that no other allocation would make producers and consumers better off. This is achieved via pricing the product at different stages, places, and times among different users. Pricing efficiency refers to the structural characteristics of the marketing system, when the sellers are able to get the true value of their produce and the consumers receive true worth of their money.

Pricing efficiency is a second form of marketing efficiency and is based on the assumption that competitive markets are efficient. It is concerned with the ability of the marketing system to allocate resources and coordinate the entire agricultural/food production and marketing process in accordance with consumer directives. The evidence of pricing efficiency is efficient resource allocation and maximum economic output. Possibly the best measure of the

satisfaction-output of the marketing system is the price that customers will pay in the marketplace for the produce, commodity or product in question. If consumers are willing to pay three cents more per orange for orange juice than for fresh oranges, it can be inferred that the process of juicing adds three cents of form utility to fresh oranges. The pricing mechanism directly affects production, in this instance, by indicating that a certain amount of the available oranges should be processed rather than sold as fruit.

Frequently there are conflicts between the different varieties of efficiency. For example, a new technological development may improve a firm's operational efficiency and permit it to grow very large. However, this growth may reduce the number of firms and thereby affect structure and competition in the industry, and in turn perhaps lower price efficiency. The above two types of efficiencies are mutually reinforcing in the long run, one without the other is not enough.

- **Empirical Assessment of Marketing Efficiency**

A reduction in the cost for the same level of satisfaction or an increase in the satisfaction at a given cost results in the improvement in efficiency.

$$E = \left(\frac{O}{I}\right)100$$

E = level of efficiency

O = value added to the marketing system.

I = real cost of marketing

Shepherd's formula of marketing efficiency:

$$ME = \left(\frac{V}{I} - 1\right)100$$

ME = Index of marketing efficiency

V = Value of the goods sold or price paid by the consumer (Retail price)

I = Total marketing cost or input of marketing.

Dear learner, this method eliminates the problem of measurement of value added.

Chapter Three

3. Agricultural Product Prices

3.1. Marketing Mixes

Introduction

The sub-section deals with the agricultural Marketing mixes. Marketing is set of activities involve determining v what your customer wants, developing that product, delivering that product to a place where the customer wants to purchase it, set a price for the product that is profitable and attractive to the customer, and then informing the customer about the product.

This may sound complicated but there is an easier way to understand and remember the important parts of marketing called the 'Marketing Mix'. Sometimes these are called the 4 "P's" of marketing because all the terms start with the letter "P". To do a complete job of marketing one has to attend to all the 4 parts of marketing.

Objectives

After attending this section, you should be able to:

- Describe the components of each marketing mix that must be considered in designing a marketing strategy
- Identify possible wide range of objectives that organizations seek to achieve through their pricing decisions

There are many possible ways to satisfy the needs of target customers. A product can have many different features and quality levels where service levels can be adjusted. The package can be of various sizes, colors, or materials. The brand name and warranty can be changed. Different advertising media – newspapers, radio, television, and billboards may be used. A

sales force or other sales specialists can be used. Different prices can be charged. Price discounts may be given, and so on.

To organize all these decisions, it is useful to reduce all the variables into what are called the four marketing mix. The marketing mix is the set of marketing tools the firm uses to pursue its marketing objectives in the target market.

- Product, Price, Promotion & Place

These marketing mixes are sometimes called the 'four P'. Note that the four P's represent the seller's view of the marketing tool available for satisfying and influencing buyers. From the buyer's point of view, each marketing tool is designed to deliver a customer benefit. Robert Lanrterborn suggested that sellers' four P's correspond to the customer's four C's

Four P's	Four C's
Product	Customers solution
Price	Customer cost
Place	Convenience
Promotion	Communication

All the marketing mixes are for better customer satisfaction. Based on the marketing concepts, the whole activities of marketing are centered on customer value. Hence, customer is not part of the marketing mix. The customer is surrounded by the four P_s as shown in Figure 4.1 below.

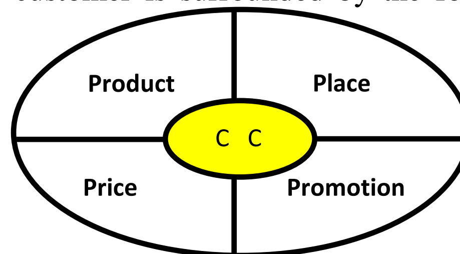


Figure 1.3 Marketing mixes

Some learners assume that the customer is part of the marketing mix-but this is not so. The customer should be the target of all marketing efforts. To show this the customer is placed in the center of the diagram.

Product

The product is concerned with developing the right "Product" for the target market. This offering may involve physical goods, a service, or a blend of both. Thus, product is not limited to the "physical goods". The important thing in the product is that the goods and/or service should satisfy some customers' needs.

Product means the needs-satisfying offering of a firm. The idea of "product" as potential customer satisfaction or benefits is very important. Many business managers focus on the technical details of a product. They think of product in terms of physical components, like protein content and size of egg. These are important to them, but components have little effect on the way most customers view the product. Most customers just want a product that satisfies their needs.

Product – is anything that can be offered to a market for attention, acquisition, use, or consumption that might satisfy a want or need.

Quality and satisfaction depend on the total product offering. If potato chips get stale on the shelf because of poor packaging, the customer will be dissatisfied. A broken button on a shirt will disappoint the customer even if the laundry did a nice job cleaning and pressing the collar. A powerful computer is a poor quality product if it won't work with the software the customer wants to use – or if the seller doesn't answer the phone to respond to customer's questions about how to turn it on.

The product mix

A product mix is an assortment of types of products and product lines. A product line is a series of related products. More successful agribusinesses have a reasonably broad product portfolio for the following reasons:

- Inherent seasonality of agricultural products; be they inputs or outputs.
- Gain entry to the channels of distribution. Most distributors will want to handle a product range rather than a single item in order to be able to satisfy a number of customer needs on the occasion of a single visit to the sales outlet.
- Gain credibility as a source of knowledge on product range especially where products are augmented by technical advice, as in the case of agricultural equipment, agrochemicals and other agricultural inputs.

i) *Place* - reaching the target

Place is concerned with all the decisions in view of getting the "right" product to the target market's place. A product isn't much good to a customer if it isn't available when and where it's wanted.

A product reaches customers through a channel of distribution, refers to any service of firms (or individuals) from products to final user or consumer. Sometimes a channel system is quite short. It may run directly from a producer to a final user or consumer. This is especially common in business markets and in the marketing of services. Often the system is more complex involving many different kinds of middlemen and specialists. And if a marketing manager has several different target markets, several different channels of distribution might

be needed. Most producers do not sell their goods directly to the final users; between them stands a set of intermediaries which constitute a marketing channel. Some intermediaries such as wholesalers and retailers - buy, take title to, and resell the merchandise; they are called the merchants. A merchant buys different agricultural products from producers, processed products from processing factory and sells it to consumers.

Others brokers, manufacturing firm representatives, sales agents search for customers and may negotiate on the producer’s behalf but do not take title to the goods; they are called agents. Agents in big towns play an important role in the distribution of agricultural products. Agricultural products supplied from small towns pass on to wholesalers and retailers through these agents. These agents are important in channeling products from the point of production to the point of consumption.

Still other transportation companies, independent warehouses, banks, advertising agencies assist in the distribution process but neither take title to goods nor negotiate purchases or sales, these are called facilitators. They are not directly involved in the selling and buying processes but mainly facilitate the activity.

Marketing channels are set of interdependent organizations involved in the process of making a product or service available for use or consumption. Marketing channel decisions are among the most critical decisions facing management. The channels chosen intimately affect all the other marketing decision.

> Marketing distribution is a set of interdependent organizations involved in the process of making a product available for use or consumption by the consumer or business user.

Intermediaries mostly achieve superior efficiency in making goods widely available and accessible to target markets. Through their contracts, experience, specialization, and scale of operation, intermediaries usually offer the firm more than it can achieve on its own.

Intermediaries are the major sources of cost savings by reducing the number of contact necessary in channeling products from producer to consumer. Figure 4.1(a) and 4.1(b) compares the number of contacts necessary when there are intermediaries and when there is no intermediary.

Figure 4.1(a) No Intermediary

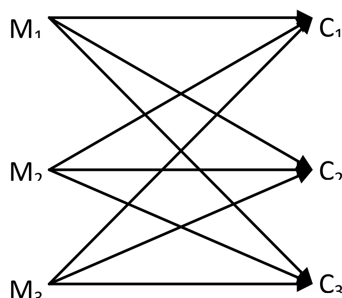
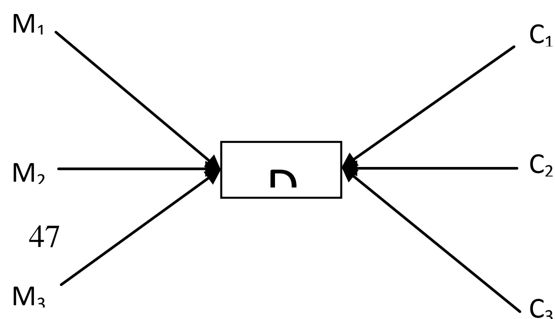


Figure 4.2(b) Distributor intervener



M – Manufacturer C – Consumer

Fig (a) shows three producers (M_1, M_2 and M_3), each using direct marketing to reach three customers (C_1, C_2 and C_3). This system requires nine different contacts. Thus, if the numbers of producers are M and number of consumers are C, then the number of contacts will be M times C.

Fig (b) shows the three producers working through one distributor, who contacts the three consumers. This system requires only six contacts, i.e., it only requires M plus C contacts. In this way, intermediaries reduce the number of contacts and the work.

Price

Dear learners, can you attempt to define price? The following paragraphs give the definition of price. In the narrowest sense, price is the amount of money charged for a product or service. More broadly, price is the sum of all the values that consumers exchange for the benefits of having or using the product or service. **Price** refers to the amount of money charged for a product or service, or the sum of the values that consumers exchange for the benefits of having or using the product or service.

Dear learners, price of products are important variables in the product mixes. Traditionally price has operated as the major determinants of buyer choices. This is still the case in poorer nations and with commodity-type products. When you see something attractive, you will be interested to know its price. As you remember from microeconomics course, price is probably the first and most important determinant of demand from consumers' viewpoint. From consumers' side, price represents consumers' cost. Conversely, price is important variable for the firm as it is the main determinant of the firm's revenue. A consumer buys a product if she expects to derive satisfaction that is equal to the cost of appropriating the product.

Dear learners, note that price is one of the most important decision variables for a firm. Due to this, firms usually design different pricing strategies. These different strategies will be discussed in detail in the next unit. Price is also one of the most flexible elements of the marketing mix. Unlike product features and channel commitments, price can be changed very quickly. At the same time, pricing and price competition is the number-one problem facing many marketers.

Although non-price factors have become more important in recent decades, price still remains one of the most important elements in determining market share and profitability of firms.

Nevertheless, many manufacturing firms do not handle pricing well as they make some common mistakes because, pricing is too cost-oriented; price is not revised often to capitalize on market changes; price is set independent of the rest of the marketing mix rather than as an intrinsic element of market. It is not also varied enough for different product items, market segments, distribution channels, and purchase occasions.

Pricing Decisions

All of the decisions made with respect to the elements of the marketing mix are of critical importance and pricing is one of the decisions as to what price to ask for the product or service. The task of pricing is reiterative because it takes place within a dynamic environment: shifting cost structures affect profitability, new competitors and new products alter the competitive balance, changing consumer tastes and disposable incomes modify established patterns of consumption. This being the case, an organization must not only continually reassess its prices, but also the processes and methods it employs in arriving at these prices.

Perhaps a logical starting point for an organization is to clearly articulate what objectives it seeks to achieve through its pricing policies and then to evaluate the factors likely to impinge upon the strategies which it seeks to adopt in pursuit of those objectives. Thus, the broader objective(s) of a firm make the pricing strategy.

Enterprises have a hierarchy of objectives. At the apex of this hierarchy are the corporate objectives and it is from this that the organization's marketing objectives are derived. Price is an element of the marketing mix, and so pricing objectives are defined in terms of their role within the marketing mix strategy.

There are different strategies of setting prices. The different strategies can be categorized under two basic approaches: Cost-oriented and Demand-oriented price setting. In general determinations of price require information on various aspects of the firm and external factors. Figure 4.1 summarizes the key factors that influence price setting.

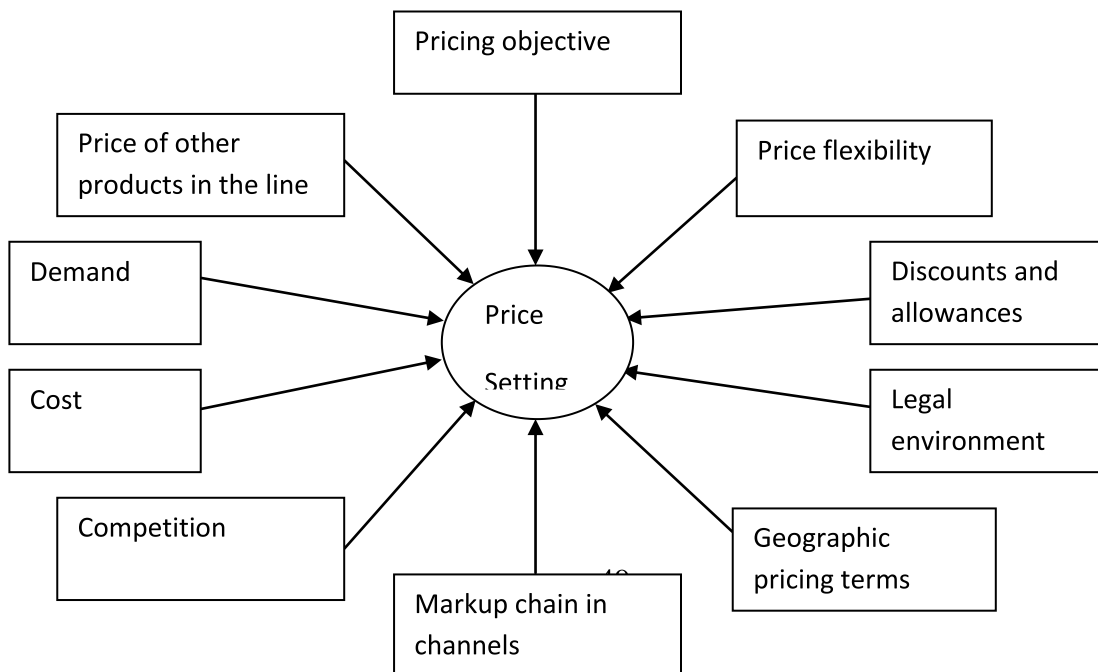


Figure 1.4 key factors that influence price setting

Pricing Objectives

Dear learners, to decide the pricing strategy of a firm; it is important to answer what objective the pricing strategy should meet. In addition to those discussed before, there are various objectives.
Dear learners, what happens when companies want to maximize profit? Many companies try to set a price that will maximize current profits. They estimate the demand and costs associated with alternative prices and choose the price that produces maximum current profit, cash flow or rate of return on investment. This strategy assumes that the firm has knowledge of its demand and cost functions; in reality these are difficult to estimate. Some companies want to maximize their market share. They believe that a higher sales volume will lead to lower unit costs and higher long-run profit. They set the lowest price, assuming the market is price sensitive.

Whilst these pricing objectives vary from firm to firm, they can be classified into six major groups: (1) profitability, (2) volume, (3) competition, (4) prestige, (5) strategic and (6) relationship objectives. The way in which each of these objectives is expressed can take different forms as figure 5.1 illustrates.

Profitability objectives

Commercial enterprises, and their management, are judged by their ability to produce acceptable profits. These profits may be measured in monetary values and/or as a percentage of sales and/or as a percentage of total capital employed. In addition to maximizing the profit of the firm as a whole, the objective can further be considered in terms of the profit level from each unit sold of a product or product line.

Target return on investment (TROI) goals are common in commerce and these can be either short or long run goals, stated as profit as a percentage of either sales or assets. This is a cost-oriented approach to pricing decisions. The targets set will depend very much upon the economy within which the organization operates.

Maximizing revenues: it is an objective of getting the maximum possible revenue. When it is difficult to calculate cost of each item produced or sold (e.g. when most costs are indirect and/or are shared by different products) marketing managers often seek to maximize revenues when setting prices. They do so because they need only to estimate the patterns of demand and they believe that if current revenues are maximized then, in the long run, profits will be maximized.

Hence, the objective of the firm is to maximize the profits, by maximizing sales revenue, of the firm as a whole given its direct and indirect costs. When a firm's fixed costs constitute larger proportion of the total production cost, maximizing revenue is virtually equivalent with maximizing profits.

Volume objectives

On occasion, the pricing decisions of managers have more to do with sales maximization than profit maximization. In these cases, organizations set a minimum acceptable profit level and then set out to maximize sales subjected to this profit constraint. The difference between this objective and the revenue maximization objective mentioned above is that here in the volume objective, the main objective of the firm is to maximize just its sales revenue given a certain minimum acceptable profit. The firm is, here, committed to sacrifice some profits in order to achieve higher sales volume. Firms usually follow such strategic objective for two main reasons. If a firm achieves higher market share relative to other rival firms, it will have dominant power in the industry and hence can enjoy monopoly power in the future. Some farsighted firms intentionally compromise short-term profits for long-term profits. Moreover, there is frequently a positive relationship between high market share and profitability since the additional volumes help lower unit production costs.

Competitive objectives

As with any other marketing decisions, pricing decisions must take into account the current behavior of competitors and seek to anticipate the future behavior of those competitors. In particular, a company will wish to anticipate competitors' likely reactions if the pricing strategies and tactics it is considering are actually implemented.

Going-rate pricing: Competing firms will sometimes set out to match the industry leader's prices. The net result is to take the emphasis away from price competition and refocus competition on to other elements of the marketing mix. Although pricing is an effective tool for gaining a differential advantage over competitors, a price move is easily imitated and mostly leads to retaliatory action. In certain cases, if the competing firms in a market allow pricing to be the chief basis of competition, the profitability of the whole industry can suffer.

Competitors may attempt to promote stable prices by focusing upon product/service strategies, promotion and distribution, i.e. the non-price elements of the marketing mix. In this case, the objective of firms is to avoid price competition which may lead to price-war.

Anti-competitive pricing (sometimes termed as limit pricing)**:** On occasion, a firm will price its products with a view to discouraging competitors from entering the market or to force them out of the market. This is done by maintaining relatively low prices and profit margins. The extent to which this sort of pricing can be practiced depends upon the firm's own return-on-investment requirements and the vigor with which anti-competitive actions are policed within a country. Such pricing can be effective if the firm has some monopoly power gained through cost efficiency. If the firm's long run average cost of production is sufficiently low, it can exercise limit pricing over a weak firm or new entrants. Such strategy can chiefly be used by decreasing cost industry or by a firm enjoying substantial economies of scale. As opposed to the above, this pricing strategy is targeted to gain market power.

Prestige objectives

Prestige objectives are unrelated to profitability or volume objectives. These involve establishing relatively high prices to develop and maintain an image of quality and exclusiveness that appeals to status-conscious consumers. Such objectives reflect recognition of the role of price in creating the image of an organization and its products or services. Such pricing is mostly exercise in service firms like hotels. Electronics and automobiles that have well accepted brands usually set their price high just to maintain an image of superior quality. The quality of the product may not actually be superior in real sense; but firms, by making some 'fancied' differentiation, attempt to convince consumers that the product is different.

Dear learners, some consumers feel inferior if the price of a product is lower. Especially, in such services as hotels, restaurants, etc, consumers would feel superior when they pay higher prices for the same service that is being delivered at lower price. Some people in a society want to identify themselves with a higher social class and they will be willing to pay higher price for the sake of attaining the status. Firms, knowing such behaviors of some consumers, try to form the social class through prestige pricing strategy. You may pay higher price in a hotel, for the same brand beer – say, St. George – than you pay for it in other hotels having comparable service.

Strategic marketing objectives

Price stabilization: The objective of stabilizing prices is met in the same way as that of removing price as the basis of competition. That is, the company will seek to maintain its own

prices at or around those of competitors. However, the aim is not to negate price as a possible marketing advantage, but to narrow the range of price differentials and fluctuations.

Supporting other products: Pricing decisions are often focused upon the aim of maximizing total profits rather than maximizing profits obtained from any single product within the portfolio. To this end, some products may be designated as loss leaders whereby their price is set at a level that produces low or even negative returns in order to improve the sales and profitability of others within the range. Thus, for instance, a manufacturer of crop protection products may sell a knapsack sprayer at or below cost in an attempt to stimulate sales of the high-margin chemicals which it is designed to apply. Especially, when a firm produces two complementary products, it can stimulate the sales of one product by lowering the price of the complement in a way it maximizes the overall profits of the firm. Such strategic behavior will be effective if the firm has some monopoly power in one of the complements and faces high degree of competitions in the other complement. The firm can lower the price of that product in which it is facing stiff competition and compensate the loss by charging higher price for that product in which the firm has monopoly power.

Maintaining cash flow: Many businesses fail not so much because there is an inadequate demand for their products and services, but due to cash outflows running ahead of cash inflows. It follows that the maintenance of a sound cash flow position is an important management objective. Much of a company's trade will be on the basis of credit rather than cash sales. The pricing mechanism can be used to manage cash flow. Prices can be structured in such a way that customers are encouraged either to pay cash or to repay credit earlier than they might otherwise do.

Target markets: The sensitivity of buyers to prices can vary across different market segments. Some consumers will view products as commodities and therefore purchase mainly, or wholly, on price. Others will perceive differences between competing brands and will perhaps make their choice on the basis of characteristics such as quality, freshness and convenience rather than on price.

Prospective buyers also differ in their perceptions of the actual price which they are being asked to pay. Some farmers, for instance, will focus on the retail price of a piece of agricultural equipment when considering a purchase. Others will take into account the credit terms available on the item. Yet others will calculate the trade-in value for used equipment that one dealer is offering in competition with another dealer.

Relationship marketing

Channel of distribution members: The interests of all participants in the channel of distribution for the organization’s products have to be taken into consideration when making

pricing decisions. By developing pricing policies and structures which assist intermediaries to achieve their own profit objectives, an organization is better able to retain the loyalty of channel members. Where there is intense competition for distributive outlets it is the organization which proves most knowledgeable and sensitive about the needs of intermediaries that will fare best.

Suppliers: Just as the organization must take account of the interests of its distributors, so it must be concerned about the welfare of suppliers. This producer sees its supplier as an extension of its own business.

The general public: The general public has an interest in the activities of commercial organizations even if they do not buy or use the organizations' products or services. The public will, for instance, be concerned about the state of business ethics within an organization and with issues such as the impact that an organization's activities have on the environment, the extent to which the organization contributes to the local community (e.g. charitable works and contributions), the manner in which it deals with the complaints and concerns of the community and the extent of its profits. Companies have to be careful in the way they report prices and profits since these can easily be perceived as being excessive.

Government: Governments often take a keen interest in the prices charged, particularly if the product is a staple food. This is true even where organizations have been freed from government control over prices because the price of basic food items is a politically sensitive issue in most countries. The government will wish to be seen to be vigilant in preventing profiteering at the expense of the common people. The situation can be particularly difficult for organizations such as agricultural marketing firms who after years of suppressed prices find it necessary to raise prices substantially to become commercially viable.

Cost - oriented Pricing Method

Markup Pricing

Some firms - including most retailers and wholesalers - set prices by using a markup - a dollar amount added to the cost of products to get the selling price. For example consider that a retail shop buys a kilo of sugar for 4.50 Birr from Metahara Sugar Factory. To make a profit, the retail shop obviously must sell the sugar for more than 4.50 Birr. If it adds 50 cents to cover operating expenses and provide a profit, we say that the retail shop is marking up the item 50 cents.

Markups, however, usually are stated as a percentages rather than dollar or Birr amounts. Markup means percentage of selling price that is added to the cost to get the selling price. Thus, the markup for the above item can be calculated as:

Markup $= \frac{(Selling\ price - Buying\ price)}{Selling\ price} \times 100\%$

For the above example;

Selling price (revenue) = 5.00 Birr, Buying price (cost) = 4.50 Birr

Markup = $\frac{(5.00 - 4.50)}{5.0} x100\% = \frac{0.50}{5.0} x100\% = 10\ \%$

Deciding the level of the markup

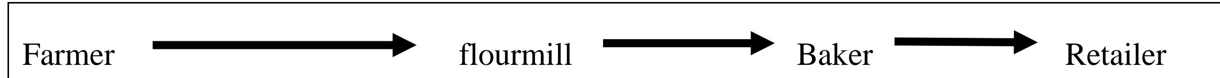
Many middlemen select a standard markup percent and then apply it to all their products. This makes pricing easier. Sometimes if the firm is selling a number of products, spending time to find the best price for each item in stock might not pay. The easiest way is to develop a standard markup which is sufficient to cover the firm's operating expenses and provide a reasonable profit. But what is the basis for setting this standard markup?

A standard markup is related to gross margin - it is usually set close to the firm's gross margin. It is also important to study the markups at different levels in the marketing channel. Different firms in a channel often use different markups.

A markup chain - the sequence of markups firms use at different levels in a channel - determines the price structure in the whole channel.

For example, the farmer's selling price of wheat grain becomes the cost for a flourmill firm. The flourmill's selling price of wheat flour becomes a baker's cost. The Baker's selling price of bread to a retail shops becomes the retailer's cost. And this cost plus a retail markup becomes the retail selling price of bread to final consumer. Each markup should cover the costs of running the business and leave a profit.

Selling price to flourmill 120 Birr = 100%	Selling price of one quintal of wheat flour	Selling price of bread that uses quintal of flour 200 Birr = 100%	Selling price 250 Birr = 100%
Markup - 15 Birr = 12.5 %	Markups - 30Birr = 20%	Markup - 50 Birr = 25%	Markup - 50 Birr = 20%
Cost of producing one quintal of wheat 105 Birr = 87.5%	Cost of one quintal of wheat 120 Birr = 80%	Cost of one quintal of flour 150 Birr = 75%	Retailer cost of bread 200 Birr = 80%



Markups and Profits

Some people including many traditional retailers think high markups means big profits. Often this is not true. A high markup may result in a price that is too high - a price at which few customers will buy. And you cannot earn much if you do not sell much - no matter how high your markup. But many retailers and wholesalers seem more concerned with the size of their markup on a single item than with their total profit. And their high markups may lead to low profit - or even losses.

Some retailers and wholesalers, however, try to speed turnover to increase profit even if this means reducing their markups. They realize that a business runs up costs over time. If they can sell a much greater amount in the same time period, they may be able to take a lower markup and still earn higher profits at the end of the period.

An important idea here is the stock turn rate - the number of times the average inventory is sold in a year. The higher the stock turn rate the higher will be the total profits at the end of the year even if the markup may be lower.

For example a firm (Firm A) that sells a 100,000 Birr value of items with stock-turn rate of say 2 - two times a year – requires 50,000 Birr worth of inventory. Another equivalent firm (Firm B) with this 50,000 Birr may attain a stock-turn rate of say 5, if that firm reduces its markups. This means the later firm can sell a 250,000Birr value per annum. Assume further firm A has a markup (gross profit) of 20 cents from each one Birr sales revenue while firm B has 15 cents. The total gross profit of firm A will then be 20,000 Birr (0.2x100, 000) per annum but it will be 37500 Birr per annum for that of firm B. Thus, by reducing markups and hence prices of products, it is possible to maximize sales revenue and be able to increase total profits.

Reducing markups to increase profit works especially if reducing price increases percentage sales by more than the reduced percentage price. In other words, total revenue increases when price declines if the price elasticity of demand of the item under consideration is elastic. That is the percentage increase in quantity sold is greater than the percentage decline in price. In the above example, firm B by reducing price by 25% (from 20 cents to 15 cents) is able to increase its sales revenue by 150% (from 100,000 Birr to 250,000 Birr revenue). The relationship between price elasticity and total revenue will be dealt in the later sections.

Average cost Pricing

Average cost pricing means adding a reasonable markup to the average cost of a product. A manager usually finds the average cost per unit by studying past records. Dividing the total cost for the last year by all the units produced and sold in that period gives an estimate of the average cost (the cost per unit output) for the next year.

Total fixed cost - is the sum of those costs that are fixed in total no matter how much is produced. Among these fixed costs are rent, depreciation, managers' salaries, property taxes and insurance. Such costs stay the same even if production stops temporarily. Fixed costs do not vary with the amounts of output.

Total variable cost - on the other hand is the sum of those changing expenses that are closely related to output - expenses for raw materials, packaging materials, labor costs, sales communications, etc. At zero output level, total variable cost is zero. As output increases, so do variable costs.

Total cost - is the sum of total fixed and total variable costs. Changes in total cost depend on variations in total variable cost since total fixed cost stays the same. The pricing manager usually is more interested in cost per unit than total cost because prices are usually quoted per unit.

For example a company incurred the following costs last year.

Total Fixed overhead expenses (FC) -------------- 30000

Total Labor and material expenses (VC) --------- 32000

Total costs (TC) -------------------- 62000

Average cost (per unit cost) - is obtained by dividing total cost by the related quantity (that is the quantity that causes the total cost).

$$\text{AC} = \frac{TC}{Q} = \frac{62000}{40000} = 1.55$$

AC - average cost

TC - total cost (fixed cost plus variable cost)

Average fixed cost (per unit fixed cost) - is obtained by dividing total fixed cost by the related quantity.

$$AFC = \frac{TFC}{Q} = \frac{30000}{40000} = 0.75$$

Average variable cost (per unit variable cost) - is obtained by dividing total variable cost by the related quantity.

$$AVC = \frac{TVC}{Q} = \frac{32000}{40000} = 0.8$$

If the company produced 40,000 items in that time period the average cost is 62,000 divided by 40,000 units or 1.55 Birr per unit.

Q - total quantity sold = 40000

$$AC = \frac{62000}{40000} = 1.55 \text{ or } AC = AFC + AVC = 0.75 + 0.8 = 1.55$$

To get the price, the firm decides how much profit per unit to add to the average cost per unit. If the firm considers 45 cents a reasonable profit for each unit, it sets its price at 2.00 Birr. Accordingly if the firm sells, say, 40000 units in the next period too the total profit will be 18000 Birr.

Average cost pricing is simple. But it can also be dangerous. It is easy to lose money with average cost pricing. For instance in the above example if the firm sells only 20000 Birr, the average cost can be calculated as follows:

Total Fixed cost --------------------------------- 30000

Total Variable Cost ------------------------------ 16000

Total cost --- 46000

Average cost will then be , $AC = \frac{TC}{Q} = \frac{46000}{20000} = 2.30 Birr/unit$

It the firm continues to sell its product for 2.00 Birr assuming that the average cost is just 1.55 Birr per unit, the firm will lose 30 cents from each unit sold and will incur a total lose of 6,000 Birr.

The basic problem with the average cost pricing approach is that it does not consider cost variations at different levels of output. But, average costs may decline or increase as the level of output increases. Therefore, it is important to develop a better understanding of the different types of costs a marketing manager should consider when setting a price. If a firm's marketing department develops the cost function of the firm, it can efficiently use Average Cost Pricing.

Break-even Pricing

Another method considered in setting price is break-even pricing. This pricing system is sometimes called target profit pricing. Break-even analysis evaluates whether the firm will be able to break-even - that is cover all its costs - with a particular price. This is important

because a firm must cover all costs in the long run or there is not much point being in business. Break-even point is the level of quantity at which the firm's total cost will just be equal to its total revenue. In other words, it is that quantity that makes profits zero. Break-even pricing is setting price to break even on the costs of making and marketing a product, or setting price to a make a target profit.

As shown in Figure 1.5, the TFC is constant at 20,000 Birr irrespective of the level of output i.e., whether the firm produces nothing or produces 100 tons; the total fixed cost remains the

same. It is horizontal line and will remain so as long as the firm does not increase or reduce its scale or size.

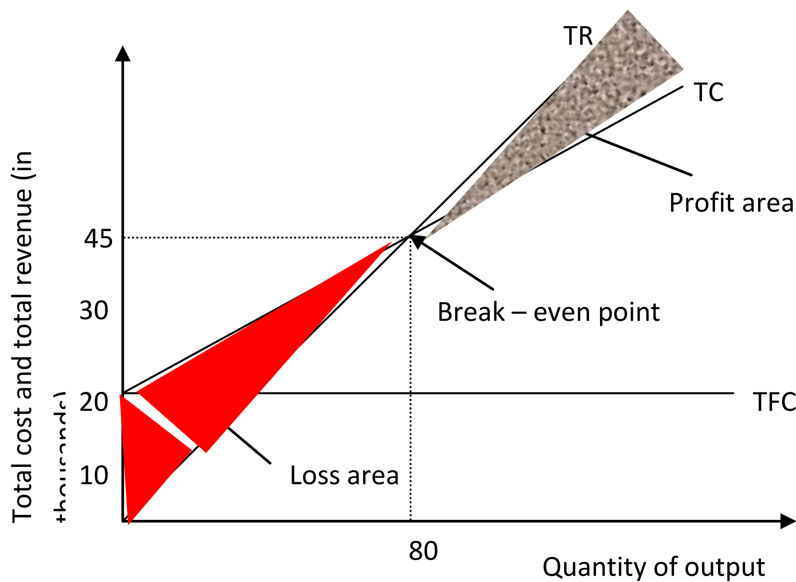


Figure 1.5 Break – even point

Total cost, however, varies with the level of output. When the output is zero, variable cost is zero and total cost is equal to total fixed cost. But at any other output levels, the total cost grows with the level of output. In the above example, the total cost is assumed to be straight line. That is the total cost increases by a constant amount for each additional unit of output which can be measured by the slope of the total cost curve.

The total revenue (TR) curve is also assumed to be straight line and it will be so in reality as long as the firm sells its product at constant price. Thus, the total revenue curve is upward sloping and is straight line. The total revenue curve will be more flat if the selling price is lower and will be steeper when the selling price rises. The difference between the total revenue and total cost at a given quantity is the profit or loss. If total cost lies above total revenue curve, the firm incurs a loss. The firm will make a profit if the total revenue lies above the total cost curve. However, the firm would be at break – even point, if it could sell 80 tones. At this point TR just equals TC. It is a point where TR curve intersects TC curve.

The point gives us the breakeven TC, TR and quantity of output. The breakeven price can be calculated by dividing TR by that breakeven quantity.

The graphical presentation of break-even point is helpful to understand the idea. How can we compute break-even point? The break-even point, in units can be found by dividing total fixed costs (TFC) by the fixed cost contribution per unit the assumed selling price minus the average variable cost (AVC).

The derivation break-even point is as follows:

Breakeven point is the point where Total Revenue (TR) is just equal to total cost (TC).

$$TR = TC \quad \text{or ;} \qquad (1)$$

It is a point where the difference between TC and TR is zero.

$$TR - TC = O$$

Total revenue is equal to quantity of output sold (Q) times price of output (P_Q)

$$TR = Q \times P_Q \qquad (2)$$

Total cost is the summation of Total Fixed Cost and Total Variable Cost

$$TC = TFC + TVC \qquad (3)$$

As mentioned previously Average Variable Cost (AVC) is total variable divided by total output.

$$AVC = \frac{TVC}{Q}$$

Thus, TVC can be expressed as

$$TVC = AVC \times Q \qquad (4)$$

Substituting equation (4) in equation (3), the total cost will be expressed as

$$TC = TFC + AVC \text{ x } Q \qquad (5)$$

Substituting equation (5) in to equation (1) gives the condition at break-even

$$TR = TFC + AVC \text{ x } Q$$

Substituting $P_Q \times Q$ in place of TR

$$P_Q \times Q = TFC + AVC \times P_Q$$

Solving for Q to obtain break-even quantity

P_Q x Q – AVC x Q = TFC

Q (P_Q – AVC) = TFC

$$Q_b = \frac{TFC}{P_Q - AVC}$$

Q_b is break-even quantity which is the ratio of total fixed cost to the contribution of fixed cost per unit.

(P_Q – AVC) is the per unit contribution of the fixed cost

It is the unit contribution of fixed cost because if the item is sold at price (P_Q) and incurred a unit variable cost (AVC), the difference is what is left after the unit variable cost is paid which is the unit contribution of the fixed cost. When we divide this per unit contribution of the fixed cost into the total fixed costs that must be covered, we have the break-even quantity.

To illustrate the formula, let us assume that the average variable cost per unit is 80 cents and the price per unit is 1.2 Birr. If the total fixed cost is 30,000 Birr, the break-even output will then be:

$$Q_b = \frac{30000}{(1.20 - 0.80)}$$

$$Q_b = \frac{30000}{0.4} = 75000\,unit$$

From this you can see that if the firm sells 75000 units, it will exactly cover all its fixed and variable costs. If it sells even one more unit, it will begin to show a profit - in this case, 40 cents per units - because all the fixed costs are already covered and the part of revenue formerly going to cover fixed costs is now all profit.

If we multiply the break even quantity - 75000 units - by the unit selling price (1.20 Birr), we get 90000 Birr - the break-even revenue or cost. The importance of computing the break-even quantity is that we can accept the proposed price if it is possible to sell sufficiently large quantity that exceeds the break-even quantity. This is because, as mentioned above, any more sells beyond the break-even quantity increases profit (assuming both the TR and the TC curves are linear). If the break-even quantity, however is above the existing demand the manager must reject the proposed price because any less realized sells below the break-even quantity incur a loss. It is often useful therefore, to compute break-even quantity for each of several possible prices and compare the quantity for each price to the likely demand at the price.

So far in our discussion of break-even point, we have focused on the quantity at which total revenue equals total cost - where profit is zero. We can also vary this approach to see what quantity is required to earn a certain level of profit. The analysis is the same as described above for the break-even quantity, but the amount of target profit is added to the total fixed cost. Then, when we divide the total fixed cost plus profit figure by the contribution from each unit, we get the quantity that will earn the target profit.

Let us assume the firm sets a target profit of Π. Then

$$\pi = TR - TC$$

In the previous sections, we have $TR = P_Q \times Q$, and $\text{TC} = TFC + AVC \times Q$

$$\pi = P_Q \times Q - (TFC + AVC \times Q)$$

$$\pi + TFC = P_Q \times Q - AVC \times Q$$

$$Q(P_Q - AVC) = \pi + TFC$$

$$Q = \frac{\pi + TFC}{P_P - AVC}$$

If in the previous example, the firm sets a target profit of say 10,000 Birr, the quantity that will have to be sold to meet the target profit will then be:

TFC = 30000 Birr

P_Q = 1.20 Birr

AVC = 0.80 Birr

$$Q = \frac{\pi + TFC}{P_P - AVC} = \frac{10,000 + 30,000}{1.2 - 0.8} = \frac{40,000}{0.4} = 100,000 \text{ units}$$

The firm can then assess the market situation to make sure that it is possible to sell 100,000 units at the targeted price of 1.20 Birr to achieve the targeted profit.

Example

Suppose a firm incurs an average variable cost of 5 Birr. The total fixed cost is equal to 60,000 Birr. The firm wants to produce output 90,000 units. What price the firm should set to get the targeted profits of 12,000 Birr.

$$Q = \frac{\pi + TFC}{P_Q - AVC}$$

$$P_Q - AVC = \frac{\pi + TFC}{Q}$$

$$P_Q = \frac{\pi + TFC}{Q} + AVC$$

$$P_Q = \frac{12000 + 60000}{90000} + 5 = 5.80$$

The firm can meet the targeted objective of earning 12,000 Birr if it is able to sell its output at a price of 5.8 Birr. It is important to note here the assumption behind the stated break – even analysis. The analysis presupposes that the firm can sell any quantity at the specified price. That is, it is implicitly assumed that the firm faces a perfectly horizontal demand curve at that particular price. It also assumes that the average variable cost is constant at any particular level of output. In other words, whether the firm sells 10 units or 100,000 units, the average variable cost remains constant at 80 cents.

But in reality, the firm often faces a down-ward sloping demand curve, as opposed to horizontal demand curve. This means, the firm will have to reduce price in order to sell more unit.

Other than constant price as mentioned above, break-even analysis assumes constant average variable cost. In reality, however, as the firm produces and sells more units its average variable cost declines due to improvement in efficiency. And it also increases beyond a certain level as the firm produces and sells relatively large quantity. In any ways, the above constant AVC assumption may not hold in reality. This would take us into another pricing approach.

Demand – oriented Pricing methods

Demand oriented approaches for setting prices are based on the *value in use* - how much the customer saves? Many marketers use *value in use* pricing - which means setting prices that will capture some of what customers will save by substituting the firm's product for the one currently being used. The value in use can be measured by the additional productivity or cost saved if the item is a resource.

For instance, the value in use of herbicide can be measured by the cost saved in terms of the labor cost that would be incurred if a farmer used hand-weeding. The labor cost for weeding varies from farmer to farmer in that the opportunity cost of different farmers is different. The herbicide producer has to estimate how much on average each farmer will save by using

herbicide and then set a price that makes less expensive for the farmer to buy herbicide than to use hand weeding.

Leader Pricing

The other strategy in pricing is leader pricing. Leader pricing means setting some very low prices - real bargains - to get customers in to real stores. The idea is not to sell large quantities of the leader items but to get customers into the store to buy other products. Certain products are picked for their promotion value and priced low-but above cost. In food stores the leader prices are the "specials" that are advertised regularly to give an image of low prices. Leader items are usually well-known, widely used items that customers don't stock heavily - milk, butter, eggs, or coffee - but on which they will recognize a real price cut. In other words, leader pricing is normally used with products for which consumers do have a specific reference price.

But sometimes such pricing can erode the profit of the firm if customers buy only the low price leaders. Therefore, managers need to be sure that the selected leader items really lead customers to buy other items.

Bait pricing

Bait pricing is setting some very low prices to attract customers-but trying to sell more expensive models or brands once the customer is in the store.

For example, a furniture store may advertise a color TV of 21" for Birr 1600 or less. But once bargain hunters come to the store, salesclerks point out the disadvantages of the low-price TV and try to convince them to trade-up to a better (and more expensive) set. Bait pricing is something like leader pricing. But here the seller doesn't plan to sell many at the low price.

Discriminatory pricing

Discriminatory pricing involves the company selling a product/service at two or more prices, where the differences in prices are not based on differences in costs. Discriminatory pricing takes one or several forms: Segmentation pricing, Product-form pricing & Time pricing.

Psychological pricing

Psychological pricing means setting prices that have special appeal to target customers. It can take many forms. It is a pricing strategy that considers the psychology of prices not simply the economics; the price is used to say something the product.

Prestige pricing

Prestige pricing is setting a rather high price to suggest high quality or high status. Some target customers want the best, so they will buy at a high price. But if the price seems cheap,

they worry about quality and don't buy. Prestige pricing is more common for luxury products - such as furs, jewelry and perfume.

It is also common in service industries - where the customer cannot see the product in advance and relies on price to judge its quality.

Price lining

Price lining is setting a fewer price levels for a product line and then marking all items at these prices. This approach assumes that they expect to pay for a product. For example most pairs of shoes are priced between 100 and 160 Birr. In price lining, there are only a few prices within this range. Pairs of shoes will not be sold for Birr 100, 101, 102, 103, 104 and so on up to 150. They might be priced at levels - Birr 100, 110, 120, 130, 140 and 150.

Complementary product pricing

Complementary product pricing is setting prices on several products as a group. This may lead to one product being priced very low so that the profits from another product will increase and increases the product group's total profits.

Product-bundle pricing

A firm that offers its target market several different products may use product-bundle pricing - setting one price for a set of products. A fruit farm can prepare fruit-bundle which contains a mixture of different fruit types mixed as a bundle of 2 or 3 kilos of - orange, lemon, and other similar types of fruits. This may be suitable even for customers in that they may want some but few amount from each type of fruits.

Price bundling can promote the sales of products consumers might not otherwise buy, but the combined price must be low enough to get them to buy the bundle.

Market penetration pricing

Rather than setting a high market price to skim off small but profitable market segments, some companies use market penetration pricing. They set a low initial price in order to *penetrate* the market quickly and deeply–to attract a large number of buyers quickly and win a large market share. The high sales volume results in falling costs, allowing to cut its price even further.

Market-skimming prices

Many companies that invent new products initially set high prices to "skim" revenue layer by layer from the market. Market skimming makes sense only under certain conditions. First, the products quality and image must support its higher price, and enough buyers must want the

product at that price. Second, the costs producing a smaller volume cannot be so high that they cancel the advantages of charging more. Finally, competitors must not be able to enter the market easily and undercut the price.

Promotion

Dear learners, do you think that having a good product at the right place with a reasonable price is sufficient? No, there is one more point. Even though a firm’s marketing strategies satisfy all these three conditions, it cannot be effective in getting its product sold if the firm does not effectively communicate with consumers. Modern marketing calls for more than developing a good product, pricing it attractively, and making it accessible. Companies must also communicate with present and potential stakeholders, and the general public.

Promotion is communicating information between seller and potential buyer or others in the channel to influence attitudes and behavior. The marketing manager's main promotion job is to tell target customers that the right product is available at the right place at the right price.

What the marketing manager communicates is determined by target customer's main needs and attitudes. How the messages are delivered depends on what blend of the various promotion methods – the marketing manager chooses.

There several promotion methods. The following promotion methods are the most common ones.

Personal selling:- Personal selling - involves direct spoken communication between sellers and potential customers. Face-to-face selling provides immediate feedback which helps salespeople to adapt. Although salespeople are included in most marketing mixes, personal selling can be very expensive. So it is often desirable to combine personal selling with mass selling and sales promotion.

Mass selling:- Mass selling - is communicating with large numbers of potential customers at the same time. It is less flexible than personal selling, but when the target market is large and scattered, mass selling can be less expensive.

Advertising is one of the main forms of mass selling. Advertising is any paid form of non-personal presentation of ideas, goods, or services by an identified sponsor. It includes the use of such media as magazines, newspapers, radio, TV, internet, and direct mail. While advertising must be paid for, another form of mass selling - publicity -is "free".

Publicity:- This is an unpaid form of non-personal presentation of ideas, goods, or services. Of course, publicity people are paid. But they try to attract attention to the firm and its offerings without having to pay media costs. For example, book publishers try to get authors

on TV talk shows because this generates a lot of interest - and book sales - without the publisher paying for TV time.

Sales promotion:- refers to promotion activities other than advertising, publicity, and personal selling that stimulate interest, trial, or purchase by final customers or others in the channel. Sales promotion may be aimed at consumers, at middlemen, or even at a firm's own employees.

Advertising:- In addition to setting prices or quantities, choosing investments, and lobbying governments, firms engage in many other strategic actions to boost their profits. One of the most important is advertising. Advertising any paid form of non personal presentation and promotion of ideas, goods, or services by an identified sponsor. Advertising is only one way to promote a product. Other promotional activities include providing free samples and using sales agents. Some promotional tactics are subtle. For example, grocery stores place sugary breakfast cereals on lower shelves so that they are at children's eye level. According to a survey of 27 supermarkets nationwide by the Center for Science' in the Public Interest, the average position of 10 child-appealing brands (44 sugar) was on the next-to-bottom shelf, while the average position of 10 adult brands (10 sugar) was on the next-to-top shelf.

- Strategic advertising:- in a duopoly, deals with a firm advertise to attract customers from its rival.
- Monopoly advertising:**-** A monopoly advertises to raise its profit. A successful advertising campaign shifts the market demand curve by changing consumers' tastes or informing them about new products. The monopoly may be able to change the tastes of some consumers by telling them that a famous athlete or performer uses the product. Children and teenagers are frequently the targets of such advertising.

If the advertising convinces some consumers that they can't live without the product, the monopoly's demand curve may shift outward and become less elastic at the new equilibrium, at which the firm charges a higher price for its product. If the firm informs potential consumers about a new use for the product, for example, "Vaseline petroleum jelly protects lips from chapping" - demand at each price increases.

The decision whether to advertise:- Even if advertising succeeds in shifting demand it may not pay for the firm to advertise. If advertising shifts demand outward or makes it less elastic, the firm's gross profit ignores the cost of advertising. The firm undertakes this advertising campaign, however, only if it expects its net profit (gross profit minus the cost of advertising) to increase.

In short, the rule for setting the profit-maximizing amount of advertising is the same as that for setting the profit-maximizing amount of output. This shows the set advertising or quantity

where the marginal benefit (the extra gross profit from one more unit of advertising or the marginal revenue from one more unit of output) equals its marginal cost.

Continuous Assessment

Test, quiz and assignment

Summary

- *Marketing mix is the set of marketing tools the firm uses to pursue its marketing objectives in the target market & is sometimes called the 'four P'.*
- *Customer is not part of the marketing mix rather the four P's are geared toward fulfilling costumer value.*
- *Promotion is communicating information between seller and potential buyer or others in the channel to influence attitudes and behavior.*

Chapter Four

4. Market Structure-Conduct-Performance Analysis

4.1. Market Structure, Conduct and Performance

Meaning:

The term structure refers to something that has organization and dimension – shape, size and design; and which is evolved for the purpose of performing a function. A function modifies the structure, and the nature of the existing structure limits the performance of functions. Some of the expressions describing the market structure are:

1. Market structure refers to those organizational characteristics of a market which influence the nature of competition and pricing, and affect the conduct of business firms;
2. Market structure refers to those characteristics of the market which affect the traders" behavior and their performances;
3. Market structure is the formal organization of the functional activity of a marketing institution.

An understanding and knowledge of the market structure is essential for identifying the imperfections in the performance of a market.

Components of Market Structure:

The components of the market structure, which together determine the conduct and performance of the market, are:

1. Concentration of Market Power:

The concentration of market power is an important element determining the nature of competition and consequently of market conduct and performance. This is measured by the number and size of firms existing in the market. The extent of concentration represents the control of an individual firm or a group of firms over the buying and selling of the produce. A high degree of market concentration restricts the movement of goods between buyers and sellers at fair and competitive prices, and creates an oligopoly or oligopsony situation in the market.

2. Degree of Product Differentiation:

Whether or not the products are homogeneous affects the market structure. If products are homogeneous, the price variations in the market will not be wide. When products are heterogeneous, firms have the tendency to charge different prices for their products. Everyone tries to prove that his product is superior to the products of others.

3. Conditions for Entry of Firms in the Market:

Another dimension of the market structure is the restriction, if any, on the entry of firms in the market. Sometimes, a few big firms do not allow new firms to enter the market or make their entry difficult by their dominance in the market. There may also be some government restrictions on the entry of firms.

4. Flow of Market Information:

A well-organized market intelligence information system helps all the buyers and sellers to freely interact with one another in arriving at prices and striking deals.

5. Degree of Integration:

The behavior of an integrated market will be different from that of a market where there is no integration either among the firms or of their activities Firms plan their strategies in respect of the methods to be employed in determining prices, increasing sales, co-ordinating with competing firms and adopting predatory practices against rivals or potential entrants. The structural characteristics of the market govern the behavior of the firms in planning strategies for their selling and buying operations. The market structure determines the market conduct and performance.

Market Conduct

The term market conduct refers to the patterns of behavior of firms, especially in relation to pricing and their practices in adapting and adjusting to the market in which they function.
Specifically, market conduct includes:

(a) Market sharing and price setting policies;
(b) Policies aimed at coercing rivals; and
(c) Policies towards setting the quality of products.

Market Performance

The term market performance refers to the economic results that flow from the industry as each firm pursues its particular line of conduct. Society has to decide the criteria for satisfactory market performance. Some of the criteria for measuring market performance and of the efficiency of the market structure are:

1. Efficiency in the use of resources, including real cost of performing various functions;
2. The existence of monopoly or monopoly profits, including the relationship of margins with the average cost of performing various functions;
3. Dynamic progressiveness of the system in adjusting the size and number of firms in relation to the volume of business, in adopting technological innovations and in finding and/or inventing new forms of products so as to maximize general social welfare.
4. Whether or not the system aggravates the problem of inequalities in interpersonal, inter-regional or inter-group incomes. For example, inequalities increase under the following situations:

(a) A market intermediary may pocket a return greater than its real contribution to the national product;
(b) Small farmers are discriminated against when they are offered a lower return because of the low quantum of surplus;
(c) Inter-product price parity is substantially disturbed by new uses for some products and wide variations and rigidities in the production pattern between regions.

The market structure, therefore, has always to keep on adjusting to changing environment if it has to satisfy the social goals. A static market structure soon becomes obsolete because of the changes in the physical, economic, institutional and technological factors. For a satisfactory market performance, the market structure should keep pace with the following changes:

1. Production Pattern:
Significant changes occur in the production pattern because of technological, economic and institutional factors. The market structure should be re-oriented to keep pace with such changes.

2. Demand Pattern:
The demand for various products, especially in terms of form and quality, keeps on changing because of change in incomes, the pattern of distribution among consumers, and changes in their tastes and habits. The market structure should be re-oriented to keep it in harmony with the changes in demand.

3. Costs and Patterns of Marketing Functions:
Marketing functions such as transportation, storage, financing and dissemination of market information, have a great bearing on the type of market structure. Government policies with regard to purchases, sales and subsidies affect the performance of market functions. The market structure should keep on adjusting to the changes in costs and government policy.

4. Technological Change in Industry:

Technological changes necessitate changes in the market structure through adjustments in the scale of business, the number of firms, and in their financial requirements.

Chapter Five

5. Price integration Application of market classification:

- **Market integration**

Dear learner what do you know about market integration? Please take 5 minutes to attempt the answer in the space left below.

Integration shows the relationship of firms in a market. The extent of integration influences the market conduct of the firms and consequently their marketing efficiency. Markets differ in the extent of integration and, therefore, there is a variation in their degree of efficiency. Market integration is a process which refers to the expansion of firms by consolidating additional marketing functions and activities under a single management.

Types of market integration

Types of integration that tie together individual firms are called horizontal, vertical and conglomerate. Theses affect the structure of firms, conduct and hence performance.

Horizontal Integration

In this type of integration, some marketing agencies (say, sellers) combine to form a union to reduce their effective number and the extent of actual competition in the market. e.g. Primary milk producers can organized as cooperative union.

Vertical integration

Vertical integration occurs when a firm performs more than one activity in the sequence of the marketing process. It is linking together of two or more functions in the marketing process within a single firm or under a single ownership. For e.g. if a firm assumes wholesale as well as retailing, it is a vertical integration or processor under taking retailing.

Conglomeration

A combination of agencies or activities not directly related to each other may operate under a unified management.

Measures of Concentration

Concentration ratio

The concentration ratio is expressed in the term CR_x, which stands for the percentage of the market sector controlled by the biggest x firms. For example, CR_3 = 70% would indicate that the top three firms control of 70% of a market.

CR_4 is the most typical concentration ratio for judging what kind of an oligopoly it is. A CR_4 of over 50% is generally considered a tight oligopoly; CR_4 between 25 and 50 is generally considered a loose oligopoly. A CR_4 of under 25 is no oligopoly at all. We would add that a CR_3 of over 90% or a CR_2 of over 80% should be considered a super-tight oligopoly.

The problem with this measure is that CR_4 does not indicate what the relative size of the four largest companies is. It may be that a CR_4 of 80 means that one company controls 50% of the market, while the others have 10% apiece. That's a very different market structure than one where every firm has a 20% share.

Advantages – it is easy to construct and easy to understand.

Disadvantages - covers only a portion of total market but small size firms are not covered.

Herfindale-Hirschman index

A measure of concentration based on the sum of squares of market shares of firms, expressed as proportions of total market sales.

The **Herfindahl index**, also known as **Herfindahl-Hirschman Index** or **HHI**, is a measure of the size of firms in relationship to the industry and an indicator of the amount of competition among them. It is an economic concept but widely applied in competition law and antitrust. It is defined as the sum of the squares of the market shares of each individual firm. As such, it can range from 0 to 1 moving from a very large amount of very small firms to a single monopolistic producer. Decreases in the Herfindahl index generally indicate a loss of pricing power and an increase in competition, whereas increases imply the opposite.

Example

The major benefit of the Herfindahl index in relationship to such measures as the concentration ratio is that it gives more weight to larger firms. Take, for instance, two cases in which the six largest firms produce 90 % of the output:

- Case 1: All six firms produce 15%, and
- Case 2: One firm produces 80 % while the five others produce 2 % each.

We will assume that the remaining 10% of output is divided among 10 equally sized producers.

The six-firm concentration ratio would equal 90 % for both case 1 and case 2, but in the first case competition would be fierce where the second case approaches monopoly. The Herfindahl index for these two situations makes the lack of competition in the second case strikingly clear:

- Case 1: Herfindahl index = $6 * 0.15^2 + 10 * 0.01^2 = 0.136$
- Case 2: Herfindahl index = $0.8^2 + 5 * 0.02^2 + 10 * 0.01^2 = 0.643$

This behavior rests in the fact that the market shares are squared prior to being summed, giving additional weight to firms with larger size.

The index involves taking the market share of the respective market competitors, squaring it, and adding them together (e.g. in the market for X, company A has 30%, B, C, D, E and F have 10% each and G through to Z have 1% each). If the resulting figure is above a certain threshold then economists consider the market to have a high concentration (e.g. market X's concentration is "0.142" or "1420" if you multiply percentages in whole figures). This threshold is considered to be "0.18" in the US,[1] while the EU prefers to focus on the level of change, for instance that concern is raised if there's a "0.025" change when the index already shows a concentration of "0.1". So to take the example, if in market X company B (with 10% market share) suddenly bought out the shares of company C (with 10% also) then this new market concentration would make the index jump to "0.172". Here it can be seen that it would

not be relevant for merger law in the U.S. (being under 0.18) but would in the EU (because there's a change of over 0.025). Put simply, now two firms control half the market, so serious competition questions are raised.

Formula

$$H = \sum_{i=1}^{n} s_i^2$$

where s_i is the market share of firm i in the market, and n is the number of firms.

The Herfindahl Index (H) ranges from $1 / N$ to one, where N is the number of firms in the market. Equivalently, the index can range up to 10,000, if percents are used as whole numbers, as in 75 instead of 0.75. The maximum in this case is $100^2 = 10{,}000$.

There is also a normalised Herfindahl index. Whereas the Herfindahl index ranges from 1/N to one, the normalized Herfindahl index ranges from 0 to 1. It is computed as:

$$H* = \frac{(H - 1/N)}{1 - 1/N}$$

where again, N is the number of firms in the market, and H is the usual Herfindahl Index, as above.

A small index indicates a competitive industry with no dominant players. If all firms have an equal share the reciprocal of the index shows the number of firms in the industry. When firms have unequal shares, the reciprocal of the index indicates the "equivalent" number of firms in the industry. Using case 2, we find that the market structure is equivalent to having 1.55521 firms of the same size.

An H index below 0.1 (or 1,000) indicates an unconcentrated index.
An H index between 0.1 to 0.18 (or 1,000 to 1,800) indicates moderate concentration.
An H index above 0.18 (above 1,800) indicates high concentration.

Disadvantage: This concentration index is very demanding in terms of data.

Lerner index

Another way to show how the elasticity of demand affects a monopoly's price relative to its marginal cost is to look at the firm's Lerner Index (or Price mark-up): the ratio of the difference between price and marginal cost to the price: (p - MC)/p. This measure is zero for a competitive firm because a competitive firm cannot raise its price above its marginal cost. The

greater the difference between price and marginal cost, the larger the Lerner Index and the greater the monopoly's ability to set prices above marginal cost.

If the firm is maximizing its profit, we can express the Lerner Index in terms of the elasticity of demand by rearranging

$$(p-MC)/P = 1/\varepsilon$$

Because MC > 0 and p > MC, 0 <p - MC < p, so the Lerner Index ranges from 0 to 1 for a profit-maximizing firm. The above equation confirms that a competitive firm has a Lerner Index of zero because its demand curve is perfectly elastic. The Lerner Index for a monopoly increases as the demand becomes less elastic. If e = -5, the monopoly's markup (Lerner Index) is 1/5 = 0.2; if e = -2, the markup is 1/2 = 0.5; and if e = -1.01, the markup is 0.99. Monopolies that face demand curves that are only slightly 'elastic set prices that are multiples of their marginal cost and have Lerner Indexes close to 1.

Note: All the three measures yield comparable results.

Learning Activities 5

Visit farm product markets in group and measure their efficiency. Does it have anything to do with gender?

Survey how farm product markets in your area is integrated and what would you do to alleviate the problem, if any.

Continuous assessment

Presentation, test, assignment

3.1.4. Proof of Ability

Assessment plan for continuous assessment of Marketing in Agribusiness (final exam)

Performance criteria	**Indicator**	**Category (method of assessment)**	**Relation with competencies**
1. Describe the possible wide range of objectives that organizations seek to achieve through their pricing decisions;	Variety of pricing objectives which are essential to make profit by satisfying customers are well identified and described	Written test, rubrics, quiz, assignment, criteria based interview	To describe

2. Analyze and Differentiate between cost-oriented and market-oriented pricing strategies, and select an appropriate pricing strategy that help producers make profit and satisfy customers.	Critically evaluate and categorize Sound pricing strategies that met producers objectives analyzed and identified	Individual and group written assignment, written tests, criterion based interview	To analyze
3.Evaluate and explain how producer and consumer respond to price changes;	A response of farm product customers and producers to price changes well explained.	Individual assignment and group work, written tests, problem analysis or case analysis	Explain
4. computing marketing costs and margins	Worked out marketing cost and margins on the bases of appropriate procedures	Worked out marketing cost and margins on the bases of appropriate procedures	Compute

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