

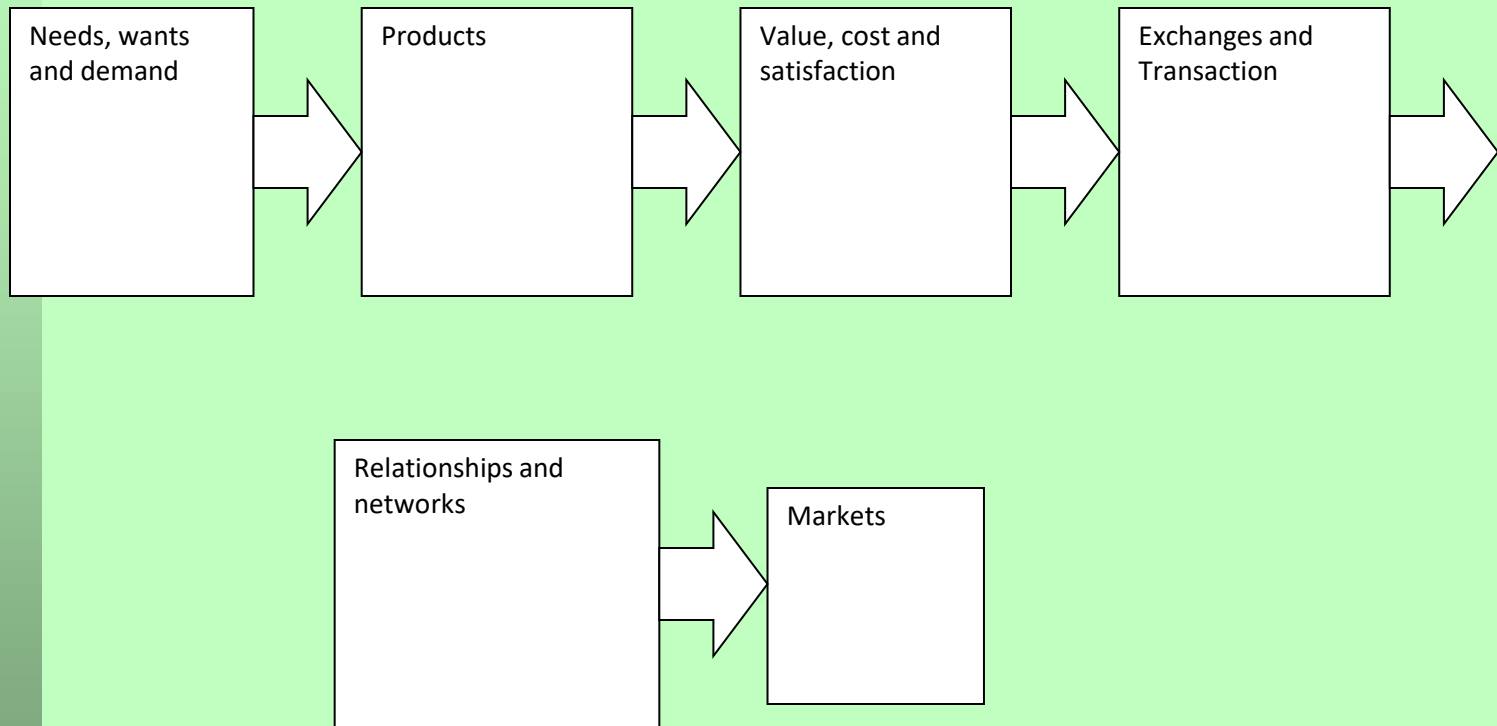
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- COURSE NAME: AGRICULTURAL MARKETING
 - INSTRUCTOR: MIDEKSA D. (MSC in Agricultural Economics)

CHAPTER ONE

AGRICULTURAL MARKETING

AND ECONOMIC DEVELOPMENT

Concepts of Marketing



Definition of Key Marketing Terms: Needs, Wants, Demands etc.

Need: need is a state of felt deprivation of some basic satisfaction.

People require food, clothing, shelter, safety, belonging, esteem, and a few other things for survival.

Want: Wants are desires for specific satisfiers of these deeper needs.

Human wants are continually shaped and reshaped by social forces and institutions, such as churches, schools, families, and business corporations

Demand: Demands are wants for specific products that are backed by an ability and willingness to buy them.

Definition of Key Marketing Terms: Needs, Wants, Demands etc.

- **Product** is anything that can be offered to someone to satisfy a need or want. It refers to physically object.
- **Service** refers to intangible (nonphysical) products that satisfy consumers' wants and needs
- **Exchange** is the act of obtaining a desired product from someone by offering something in return

Transaction: A trade between two parties that involves at least two things of value, agreed-upon conditions, a time of agreement, and a place of agreement. It is also called legal transfer of ownership



What Is Marketing?

- The process of determining the needs and wants of consumers & being able to satisfy those needs & wants profitably
- Marketing includes all of the activities necessary to move a product from the producer to the consumer
- Traditionally, a “*market*” was a physical place where buyers and sellers gather to buy and sell goods.

What Is Marketing?...

- “The process of planning and executing the conception, pricing, promotion and distribution of ideas, goods and services to create exchanges that satisfy individual and organizational goals.” (American marketing association)
- Marketing-is the management process responsible for identifying, anticipating, and satisfying customer requirements profitably.

(The Chartered Institute of Marketing (UK))

What Is a Market?

Buyers



Sellers

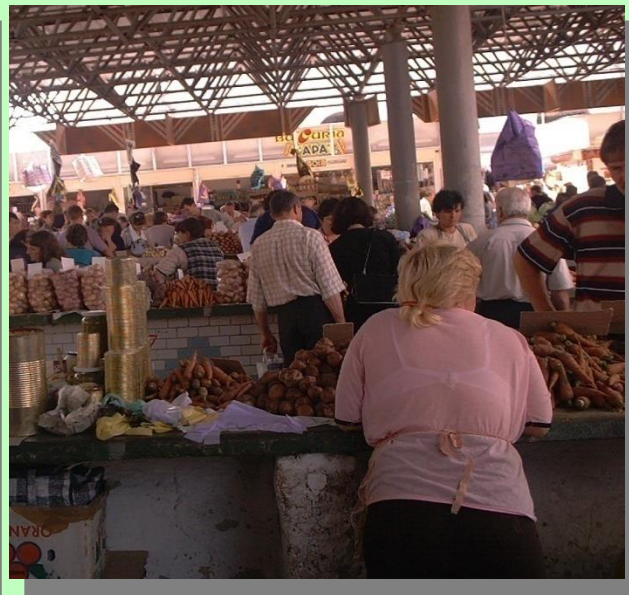


What Is a Market?

- A market is made up of buyers & sellers
- Buyers are people who need or want a product or service and have the money to buy it
- A market must also have sellers who are willing & able to produce goods & services for sale

Agriculture Marketing?

The bridge that links producer & consumer



- 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.

Two Types of Markets

Input market

- The input market includes items like metal, fertilizer, seed & wood
- These types of products are purchased by producers

Product market

- This is the market where final products are sold to consumers
- Eggs and potatoes from farms

Types of Agricultural Markets

Input markets



Product markets



Supply and Demand

- The price of a product is determined by the value that buyers place on the product
- When many buyers want a certain product the price will be higher
- If few buyers want a product the price will be lower

Supply and Demand

Low quality



High quality



Agricultural Marketing

- ❖ Agricultural marketing generally means the marketing of agricultural products to the first handler.
- ❖ In macro (social) perspective, is the performance of all business activities involved in the forward flow of food and fiber from farm producers to consumers.

Agricultural marketing ...

- ❖ Agril. marketing is the process by which a farmer seeks to maximize the return from farm production by providing buyers what they want and supplying it at a profit
 - It has to be customer-oriented
 - It provides all those participating in it with a profit.
- ❖ Agril. marketing is the series of activities and services relating to moving Agricultural product from the point of production to the point of consumption.

Agricultural marketing activities contd...

- ✓ Variety selection
- ✓ Identification of procedures
- ✓ planning production
- ✓ growing and harvesting
- ✓ grading of products and their packing, transport, storage, processing, distribution and sale;
- ✓ Sending information from production area to market

Scope and Subject Matter of Agricultural Marketing:

- Agricultural marketing in a broader sense is concerned with:
 - ✓ The marketing of farm products produced by farmers
 - ✓ The marketing of farm inputs required by farmers in the production of farm products





Agricultural marketing activities

Agricultural marketing activities



What Is Market Segmentation?

Definition: “The process of dividing a market into meaningful, similar and identifiable groups.”

3 Reasons That Segmentation Is Important:

- 1) Enables marketers to identify customers with similar needs, buying behavior.
- 2) Allows for the tailoring of the “Marketing mix” to specific segments (also cost effective).
- 3) Consistent with marketing concept of satisfying customer wants and needs.

Characteristics of Marketing of Agricultural produce

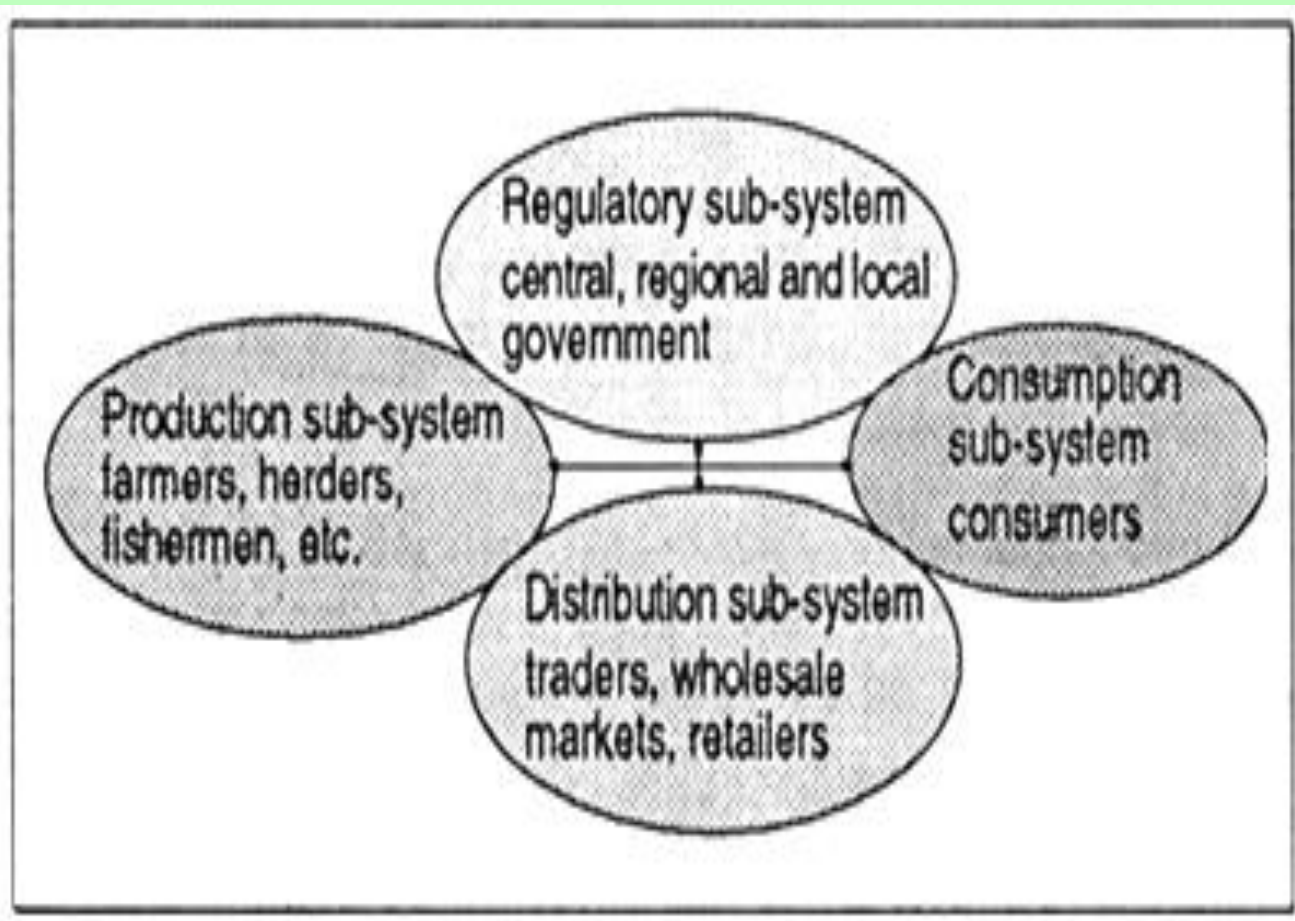
The agricultural commodities are characterized by:

- ✓ Perish ability of the Product
- ✓ Seasonality of Production
- ✓ Bulkiness of Products
- ✓ Variation in Quality of Products
- ✓ Irregular Supply of Agricultural Products
- ✓ Small Size of Holdings and Scattered Production
- ✓ Processing
- ✓ Time lag of agricultural products
- ✓ The law of diminishing returns

Marketing and the Marketing System

- Agricultural marketing system comprises all of the functions, and agencies who perform those activities that are necessary in order to profitably exploit opportunities in the market place.

The subsystems of a marketing system



Conflict of interest in agricultural/food marketing systems

Key Players	Interests
Farmers	Maximum price, unlimited quantities
Manufacturers/processors	Low purchase price, high quality
Traders and retailers	Low purchase price, high quality
Consumers	Low purchase price, high quality

Why Agril. Marketing is important for Developing Country?

Group Discussion?

Importance of Agricultural Marketing

- ✓ An efficient agricultural marketing system leads to the **optimization of resource use and output management.**
- ✓ An efficient marketing system ensures **higher levels of income for the farmers**
- ✓ Marketing system **widens the market** for the products by taking them to remote corners both within and outside the country

Importance of Agricultural Marketing contd...

- ✓ Agricultural marketing helps in the **growth of agro-based industries** and stimulates the overall development process of the economy.
- ✓ **Price Signals:** it gives farmers to plan production in accordance with the needs of the economy
- ✓ **Adoption and Spread of New Technology**
- ✓ **Employment creation**
- ✓ **Addition to National Income**
- ✓ **Creation of Utility**

Marketing utility:

- Utility will refer to the value of marketing which adds to goods and services.
- The marketing function will allow to create utility. There are five types of utilities, namely;
- **Form utility:** To change the raw materials to finished products. For example, palm oil bunch to edible cooking oil.
- **Time utility:** Making the products is available during the convenient hours.
- **Place utility:** Making the products and services available in convenience location and place.

Marketing utility:-----

- **Possession utility:** Making the exchange of goods and services between the buyers and sellers.
- **Information utility:** To inform the buyers that the products exist, how to use it, the price and other related information of the products availability.

Factors leading to the growth of agricultural marketing

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

- Specialization
- Urbanization
- Transportation and communication
- Technological change in agriculture

Classification of Markets

- Markets may be classified on the basis of
 1. On the basis of Location
 2. On the Basis of Time Span
 3. On the Basis of Volume of Transactions
 4. On the Basis of Nature of Transactions
 5. On the Basis of Degree of Competition

1. On the basis of Location

- a. **Village Markets:** located in a small village, where major transactions take place among the buyers and sellers of a village
- b. **Primary wholesale Markets:** located in big towns near the centers of production of agricultural commodities. a major part of the produce is brought for sale by the producer.
- c. **Secondary wholesale Markets:** located in district headquarters or important trade centers or near railway junctions. Transactions in commodities take place between the **village traders and wholesalers.**

Village market



Wholesale market



1. On the basis of Location...

- d. **Terminal Markets:** it is one where the produce is either finally disposed of to the consumers or processors, or assembled for export. Merchants are well organized and use modern methods of marketing.
 - located either in metropolitan cities or in sea-ports
- e. **Seaboard Markets:** Markets which are located near the seashore and are meant mainly for the import and/or export of goods

2. On the Basis of Time Span:

- a) **Short-period Markets:** The markets which are held only for a few hours.
- The products dealt within these markets are of highly perishable nature, such as fish, fresh vegetables, meat and liquid milk.
- b) **Long-period Markets:** These are held for a longer period than the short period markets.
- The commodities traded in these markets are less perishable and can be stored for some time; E.g food grains & oilseeds

2. On the Basis of Time Span...

- c) Secular Markets: These are markets of permanent nature. The commodities traded in these markets are durable in nature and can be stored for many years.
- E.g. markets for machinery and manufactured goods.

3. On the Basis of Volume of Transactions

- a) **Wholesale Markets:** commodities are bought and sold in large lots or in bulk. Transactions take place mainly between traders.
- b) **Retail Markets:** which commodities are bought by and sold to the consumers as per their requirements. Transactions in these markets take place between retailers and consumers. The retailers purchase in wholesale market and sell in small lots to the consumers. These markets are very near to the consumers.

4. On the Basis of Nature of Transactions

- a) **Spot or Cash Markets:** A market in which goods are exchanged for money immediately after the sale.
- b) **Forward Markets:** A market in which the purchase and sale of a commodity takes place at time 't' but the exchange of the commodity takes place on some specified date in future i.e., time $t + 1$.

5. On the Basis of Degree of Competition

- Market structure – identifies how a market is made up in terms of:
 - ❖ The number of firms in the industry
 - ❖ The nature of the product produced
 - ❖ The degree of monopoly power each firm has
 - ❖ The degree to which the firm can influence price
 - ❖ Profit levels
 - ❖ Firms' behaviour—pricing strategies, non-price competition, output levels
 - ❖ The extent of barriers to entry
 - ❖ The impact on efficiency

Market structure

1. Perfect Competition

Features of perfect competitive market

- Large number of buyers and sellers
- Homogeneous products
- Perfect mobility of factors of production
- Free entry & free exit of firms
- Perfect knowledge
- Absence of collusion or artificial restraint
- No govt. intervention

2. Imperfect Competition

■ **Imperfect Markets:**

a. Monopoly Market: is a market situation in which there is only **one seller** of a commodity. When there is only one buyer of a product the market is termed as a **monopsony** market.

b. Duopoly Market: is one which has only two sellers of a commodity.

They may mutually agree to charge a common price which is higher than the hypothetical price in a common market. The market situation in which there are only two buyers of a commodity is known as the **duopsony** market.

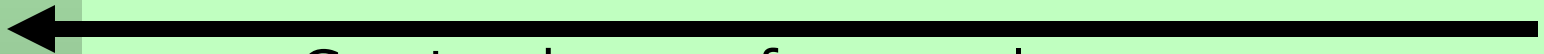
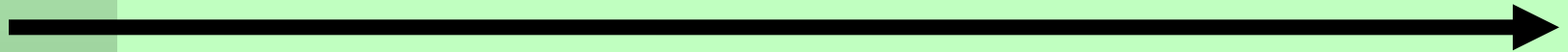
c. Oligopoly Market: A market in which there are more than two but still a few sellers of a commodity. A market having a few (more than two) buyers is known as oligopsony market.

d. Monopolistic competition: When a large number of sellers deal in heterogeneous and differentiated form of a commodity. The difference is made conspicuous by d/t trade marks on the product. Different prices prevail for the same basic product. For example, they have to choose between various marks of insecticides, pumpsets, fertilizers and equipments.

Market Structure

Perfect
Competition

Pure
Monopoly



Greater degree of monopoly power
More competitive

Features of the four market structures

Type of market	Number of firms	Freedom of entry	Nature of product	Examples	Implications for demand curve faced by firm
Perfect competition	Very many	Unrestricted	Homogeneous (undifferentiated)	Cabbages, carrots (approximately)	Horizontal: firm is a price taker
Monopolistic competition	Many / several	Unrestricted	Differentiated	Builders, restaurants	Downward sloping, but relatively elastic
Oligopoly	Few	Restricted	Undifferentiated or differentiated	Cement cars, electrical appliances	Downward sloping. Relatively inelastic (shape depends on reactions of rivals)
Monopoly	One	Restricted or completely blocked	Unique	Local water company, train operators (over particular routes)	Downward sloping: more inelastic than oligopoly. Firm has considerable control over price

•Factors affecting the growth of market development

The following are some of the factors affecting the rate of market development:

- Nature of demand
- Nature of the product: That is perishable goods.
- Transportation and communication facilities
- Quantity of supply and demand
- Banking facilities
- Peace and security

•Demand forecasting

- It is involved with the estimation of the future demand of a given product on the basis of the past & present demand data.
- This forecasting is helpful in that it helps the producer to decide how much to produce & hence how much input to use so as to get maximum profit without wasting the inputs and the outputs.
- Forecasting can be done in d/t 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

•Demand forecasting-----

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 & T is the independent 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

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

The coefficient “b” can be calculated by using the following formula

•Demand forecasting-----

$$\frac{\sum TY - n\bar{T}\bar{Y}}{\sum T^2 - n\bar{T}^2} = \frac{1998 - 14(6.5 \times 19.21)}{819 - (14)(6.5)^2} = 1.097$$

$$a = Y - bT = 19.21 - 1.097 \times 6.5 = 12.08$$

- 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 & 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.

•Demand forecasting-----

B, Chain ratio method:- The potential sale of a product may be estimated by applying a series of factors to a measure of aggregate demand. Eg, a given dairy producing & 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 X500,000
- 4.Average annual amount of consumption20 Kg / consumer
- 5.Total amount of consumption of product X in a year.....10, 000,000

•Demand forecasting-----

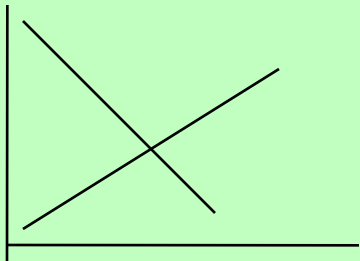
- Once the total amount of consumption of product X in a year is obtained, then it can be multiplied by the annual growth rate of population to estimate the potential demand in each year.
- So if 10,000,000 is the total annual consumption of the product by all the consumers and if 2% is population growth rate, then the potential sale for each year can be
 - Year 010, 000,000
 - Year 1 $10, 000,000 + 2/100 \times 10,000,000 = 10,200,000$
 - Year 2..... $10, 200, 0000 + 2/100 \times 10,200,000 = 10,404,000$
- 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:

- ❖ Price of the goods/products on the market
- ❖ Price of inputs/costs of production
- ❖ Technological factors
- ❖ Storage possibilities

Market equilibrium

- It is the (price) level where quantity demanded is equal to quantity supplied.
- It is also called market clearing (price) level b/c 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

➤ The two consequences of government interventions on the market.

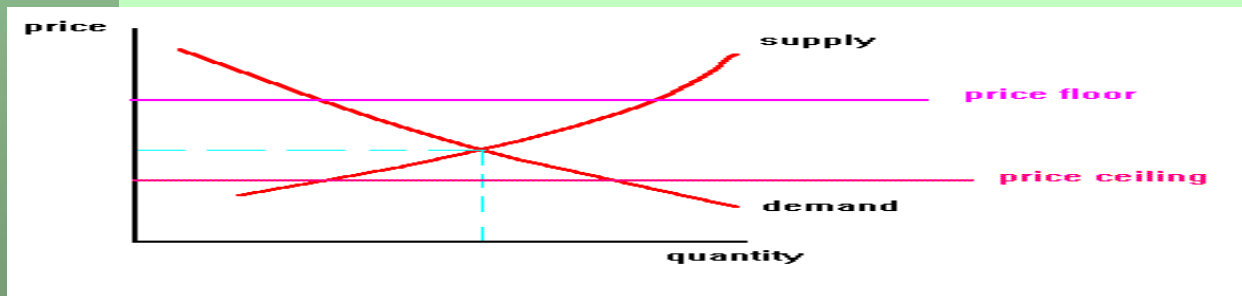
These are: setting of **price ceiling and price floor**.

➤ Setting floor price when it is thought that producers are in danger.

Floor Price plays a significant role when it is set above equilibrium price.

➤ Setting price ceiling is done when it is thought that consumers are hurt.

Price ceiling work better when it is set below equilibrium price



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.

The producer's surplus is of two types

I, Marketable surplus

•It is 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.

• It is the residual left with the farmers-producer from the TP, after accounting for the on farm requirement of the product in terms of family consumption, seed, feed, payment (kind)to labor, payment to art, etc.

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

II, Marketed surplus

- It is that quant of the produce which the producer-farmer actually sells in the mkt, irrespective of his requirements for on-farm 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 Consumptn. - marketed
- $M_t =, >, < M_b$, the r/ship b/n marketable surplus & marketed surplus can be among the following
 - I. $M_t > M_b$ ———> 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. $M_b = M_t$

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

Chapter Two

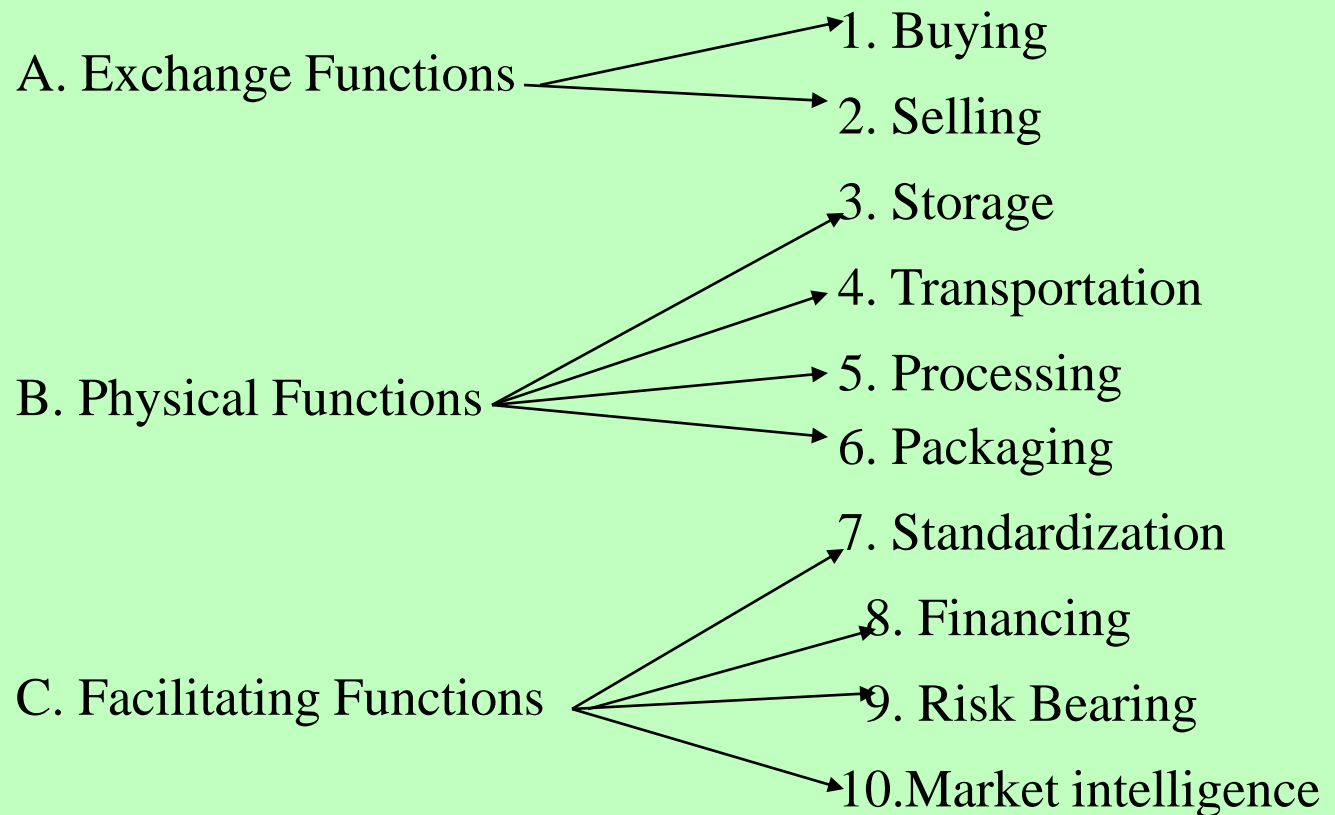
Marketing Functions, Costs and Efficiency

Approaches to study Agril. Marketing

- ❖ Various approaches have been suggested and used to study marketing problems.
- The Functional Approach
- Institutional/System Approach
- The Individual Commodity/Product Approach
- The behavioral System/Decision Making Approach

Marketing Functions

Marketing functions can be broadly classified as following:-



Marketing Functions----

- Any activity performed in carrying a product from the point of its production to the ultimate consumer is termed as a marketing function.
- A marketing function is a fundamental or basic physical process or service required to give a product the form, place, time, and possession utility consumers desire.

1. Physical Functions

- The physical functions are those activities that involve the handling, movement, and physical change of the actual commodity itself.

Packing and Packaging

- Packaging is the first function performed in the marketing of agricultural commodities.
- It is required for nearly all farm products at every stage of the marketing process.
- The type of the container used in the packing of commodities varies with the type of the commodity as well as with the stage of marketing.

Packing and Packaging

- Packing means, the wrapping and crating of goods before they are transported.
- Goods have to be packed either to preserve them or for delivery to buyers. Packaging is a part of packing, which means placing the goods in small packages like bags, boxes, bottles or parcels for sale to the ultimate consumers.

Packing and packaging



Storage and warehousing

Storage function concerned with making goods available at the desired time. It allows a smooth, and as far as possible, uninterrupted flow of product in to the market. It tries to balance supply and demand.



Transportation

- **Transportation** function concerned with making the goods available at the right place.
- It includes activities as weighing of alternative routes and types of transportation to use, activities in the preparation for shipment such as crating and loading.



processing

- The **processing** function would include all those essentially manufacturing activities that change the basic form of the product.



2. Exchange Functions

- The exchange functions are those activities involved in the transfer of title or ownership to goods.
- 2.1. The **buying** function: Seeking out the sources of supply, assembling of products, and activities associated with the purchase
- 2.2. The **selling** function: All the various activities that are called merchandising. physical arrangements of display of goods, advertising and other promotional services to influence/create demands.



3. Facilitative Functions

- Facilitating functions are those that make possible the smooth performance of the exchange and physical functions.
- The **standardization** function is concerned with the establishment and maintenance of uniform measurements of both quality and quantity. It simplifies the buying and selling.
- **Standardization** means the determination of the standards to be established for different commodities.

Grading and standardization

- Standards are established on the basis of certain characteristics-such as weight, size, colour, appearance, texture, moisture content, staple length, amount of foreign matter, ripeness, sweetness, taste, chemical content, etc.
- standardization means making the quality specifications of the grades uniform among buyers and sellers over space and over time.

Grading and standardization

- Grading means the sorting of the unlike lots of the produce into different lots according to the quality specifications laid down.
- It is a method of dividing products into certain groups or lots in accordance with predetermined standards.
- Grading follows standardization. It is a sub-function of standardization.

Financing

- The financing function of marketing involves the use of capital to meet the financial requirements of the agencies engaged in various marketing activities.
- Like credit from various lending agencies
- Commercial bank
- Development bank
- Credit coop/credit union, investor...

Risk Taking

- The **risk bearing** function is the accepting of the possibility of loss in the marketing of a product.
- Some risks such as:
 1. Quantity Loss
 2. Quality Deterioration
 3. Price Risk

Market information/ intelligence

- It is the job of collecting, interpreting, and disseminating the large variety of data to the smooth operation of the marketing process.
- Its role is to reduce the level of risk in decision making.
- Market information is an important marketing function which ensures the smooth and efficient operation of the marketing system.
- Accurate, adequate and timely availability of market information facilitates decision about when and where to market products.

Market information/ intelligence



2. Institutional approach

- The institutional approach studies the various agencies and business structures that perform the marketing task
- The institutional approach considers the nature and character of the various middle men and related agencies and also the arrangement and organization of the marketing machinery.

Middlemen in Agril. marketing

Marketing middlemen: are those individuals or business firms that specialize in performing the various marketing functions.

These are:

1. Merchant Middlemen,
2. Agent Middlemen,
3. Speculative Middlemen,
4. Processors and Manufacturers, and
5. Facilitative Organizations/middlemen

Marketing middlemen



Traditionally marketers played the role of middlemen. That is they facilitated conversation between the firm and its customers.



Marketing middlemen...

1. Merchant middlemen take title and therefore own the product they handle. They buy and sell for their own gain.

- **Retailer** buys products for resale directly to the ultimate consumer of the goods
- **Wholesalers** sell the commodity to retailers, other wholesalers and industry users, but do not sell in significant amount to ultimate consumers

2. Agent Middlemen

- Agent Middlemen act only as representatives of their clients.
- They don't take title; therefore don't own the products they handle.
- agent middlemen receive their income in the form of fee and commission. They sell their services (knowledge and know-how in bargaining) to their principals, not physical goods to customers

Commission Agents: granted with more power than broker

- **Brokers** usually don't have physical control over the product

3. **Speculative middlemen** are those who take title to products with the major purpose of profiting from price movements.

4. Processors and Manufacturers

- Processors and manufacturers exist primarily to undertake some actions on products to change their form
- Agricultural processors take an active part in other institutional aspects of marketing. Some act like as their own buying agents in producing areas, some participate in the wholesaling of their products to retailers

5. Facilitative organizations

- Facilitative organizations assist the various middlemen in performing their tasks. Such organizations do not directly participate in marketing process as either merchants or agents.
- They provide the physical facilities for the handling of products or for bringing buyers and sellers together They may also aid in grading, arranging and transmitting payment and the like
- For instance, the facilitative organizations participating in the coffee marketing in Ethiopia include, district agricultural office, cooperatives/unions, government and private banks, informal lenders, ECX and Coffee Quality Inspection Office.

3. The Commodity Approach

- This approach simply follows one product, such as coffee, and studies what is done to the commodity and who does it as it moves through the marketing system.
- It helps to pinpoint the specific marketing problems of each commodity as well to develop the market for the specific commodity

4. Behavioral Systems Approach

- This approach refers to the study of behavior of firms, institutions and organizations, which exist in the marketing system.
- It tries to answer the question how does the market or marketers behave and perform
- This approach views marketing as a system within which subsystems are interrelated and interacting each other

Marketing Channels

- Marketing channels are the chain of intermediaries through whom the various agricultural products pass from the producers to the consumers.
- It represents the route through which agricultural products move from the producers to the consumers.
- It is the set of firms and individuals that take title or assist in transferring title, to a good or service as it moves from the producer to the final consumer.

Marketing channels...

- Producer or manufacturer – Retailer – Consumer.
- Producer or manufacturer – Consumer.
- Producer or manufacturer – Wholesaler – Retailer – Consumer.
- Producer – Commission agent.

What is a Marketing Cost?

- Marketing cost is an actual cost incurred by each agency involved in the marketing channel. It includes:
- Labor, containers, rent, utilities (water and energy), advertising, selling expenses, depreciation, allowances, weighing, loading, unloading, losses and spoilages and interest costs.

Marketing Costs ...

- ❖ Handling charges at local point
- ❖ Assembling charges
- ❖ Transport and storage costs
- ❖ Handling by wholesaler and retailer charges to customers
- ❖ Expenses on secondary service like financing, risk taking and market intelligence

Marketing cost-----

- Marketing costs vary from commodity to commodity or from product to product. This is due to;
- The more waste a product has, the greater the marketing costs.
- The more perishable the product, the greater will be the marketing costs
- The more processing of the commodity, the greater will be the marketing costs
- The greater the amount of produce handling and transportation, the greater the marketing costs.

Total cost of marketing of commodity

- $C = C_f + C_{m1} + C_{m2} + \dots + C_{mn}$

- Where,

- C = Total cost of marketing of the commodity

C_f = Cost paid by the producer from the time of the produce leaves till he sells it

C_{mi} = Cost incurred by the i th middlemen in the process of buying and selling the products.

1. Marketing Margin

- **A marketing margin (MM)** is the percentage of the final weighted average selling price taken by each stage of the marketing chain/system (absolute & relative MM)
- **The total marketing margin (TMM)** is the difference b/n what the consumer pays & what the producer/farmer receives for his product. In other words it is the d/c b/n retail price and farm price.
- The margin must cover the cost involved in transporting produce from one stage to the next and provide reasonable return to those doing the marketing activities.

Marketing margin continued.....

- ❑ A wide margin means usually high prices to consumers and low price to producers. The total marketing margin may be subdivided into different components: all the costs of marketing services and the profit margins or net returns.
- ❑ The marketing margin in an imperfect market is likely to be higher than in a competitive market because of the expected abnormal profit.
- ❑ But market margin can also be high, even in a competitive market due to high real market cost.
- ❑ The common method used in estimating marketing margin is comparison of prices at different levels of marketing over the same period of time.

Marketing margin continued.....

- Total gross marketing margin (TGMM) is always related to the final price paid by the end buyer and is expressed as percentage

$$\text{TGMM} = \frac{\text{consumer price} - \text{producer price}}{\text{consumer price}} \times 100$$

$$\text{TGMM} = \frac{P_c - P_p}{P_c} \times 100 \dots\dots\dots 1$$

Gross Marketing Margin of Producers(GMMp)

- It is useful to introduce the ‘producer’s gross margin’(GMMp) which is the portion of the price paid by the consumer that goes to producer. The producer’s participation is calculated as:

$$\text{GMMp} = \frac{\text{consumer price} - \text{gross marketing margin}}{\text{consumer price}} \times 100$$

$$\text{GMMp} = \frac{P_c - \text{TGMM}}{P_c} \times 100$$

- The above equation tell us that a higher marketing margin diminishes the producer share and vice versa. It also provides an indication of welfare distribution among production and marketing agents.

Example: Calculation of marketing margins

- When the buying price from the farmer is \$0.50 per kg, the weighted average wholesale selling price is \$0.90 per kg and the weighted average retail price is \$1.17 per kg.

Share to the producer ($\$0.50/\$1.17= 0.427$ or
43%

Wholesale margin ($\$0.90 - \$0.50)/\$1.17= 0.342$
or 34%

Retail margin ($\$1.17 - \$0.90)/\$1.17= \underline{0.230}$ or
23%

Total margin= 0.572 or 57%

Class room exercise

- Assume the following tables for rice of milk in a marketing channel from a farm to Addis Ababa market indicated. Based on data concerning the selling and buying prices. One can calculate the marketing margins by applying the formula:

Price for milk in a marketing channel grown in a farm out of in A.A

Marketing chain participant	selling price (birr per lit)
Producer on farm	3.26
Rural Assembler	4.50
Wholesaler in Addis Ababa	5.00
Retailer in Addis Ababa	6.00
Consumer only buyer	6.00

- **From the given data, calculate: GMM for each channel participants, GMMp and TGMM? Use the formula and check it**

Net Marketing Margin(NMM)

- The net marketing margin(NMM) is the percentage of the final price earned by the intermediaries as their net income after their marketing costs are deducted.

$$\text{NMM} = \frac{\text{Gross Margin} - \text{marketing costs}}{\text{consumer price}} \times 100$$

$$\text{NMM} = \frac{\text{TGMM} - \text{MC}}{P_c} \times 100$$

Where

MC= Marketing cost

P_c= final consumer price

P_p= producer price

TGMM= Total Gross Marketing Margin

GMM_p= Gross Marketing Margin of the Producer/ share

NMM= Net Marketing Margin

Marketing Efficiency

- It is essentially the degree of market performance. It is a broad & dynamic concept.
- It 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 & vice versa.
- This means a reduction in marketing cost without reduction in consumer satisfaction indicates improvement in efficiency.

Marketing 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.

• **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.
- ✓ Eg. 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.
- ✓ 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.

•Assessment of marketing efficiency:-----

- 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 b/n operational efficiency & customer satisfaction explains the difficulty of improving marketing efficiency.

B, Pricing / Allocate efficiency :

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

B, Pricing / Allocate efficiency : -----

- The pricing mechanism directly affects production.
- Frequently there are conflicts b/n the d/t varieties of efficiency.
- For example, a new technological dev't may improve a firm's operational efficiency and permit it to grow very large.
- However, this growth may reduce the number of firms & thereby affect structure & competition in the industry, & 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.

- $E = (O/I)100$

E = level of efficiency

O = value added to the marketing system.

I = real cost of marketing

Shepherd's formula of marketing efficiency:

$$ME = (V/I - 1)100$$

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.

➤ This method eliminates the problem of measurement of value added.

Discuss in group! How to

- Reducing costs and losses
- What are Marketing Problems of Agricultural Products in Ethiopia?

what are the marketing Problems of Agricultural Products in Ethiopia?

➤ The marketing of agricultural in Ethiopia and most developing countries have several problems:

1. Interrelationship of Agricultural Products and Marketing:

- ❑ The agricultural marketing problems begin at the farm level, because **modern marketing** is difficult without **modern productin system**
- ❑ Real improvement in marketing of agricultural products is difficult as long as large number of small-scale subsistence farming until exists.
- ❑ Under such markets produces are marketable at high costs

what are the marketing Problems of Agricultural Products in Ethiopia?.....

- Efficient agricultural marketing and mass production go hand in hand; with out efficient marketing system/ facilities, mass production system will not take place.
- Improvement in agricultural production can be reinforced by appropriate pricing and production policies, encouraging the use of relevant modern innovation such as improved seeds, breeds, careful harvesting, etc,

what are the marketing Problems of Agricultural Products in Ethiopia?.....

2. Inadequate Transportation and communication

- One of the most pressing problems of agricultural marketing in Ethiopia is lack of transport services at reasonable prices.
- Lack of transportation refers to:
 - a. **Absolute absence of the services** in important agricultural areas
 - b. **Seasonality of transport service**; most important areas are only linked with the markets during dry seasons
 - c. **High fright charges** due to its inadequacy, lack of weather road and vehicles
 - d. **Unfitness of the existing facilities**/ poor or rough road and vehicles/ to transport some agricultural products like egg, fruits & vegetables, milk and its products

what are the marketing Problems of Agricultural Products in Ethiopia?.....

- ❑ Poor communication limits range of marketing(restricts sales to near by consumers), resulted in limited production
- ❑ Effect of inadequate transport and poor communication facilities can be summarized as follow
 - ✓ Increasing marketing costs
 - ✓ Increased price of products and thus & makes life expensive
 - ✓ Reduce the farm prices, thus reduces farm income
 - ✓ Requiring substantial fixed investment

what are the marketing Problems of Agricultural Products in Ethiopia?.....

3.Inadequate storage facilities(both cold and dry)

- Inadequate storage facilities and procedures are the cause of heavy losses to farmers in Ethiopia.
- Many parts of the world resulted in serious waste of food staffs and increased waste to consumers
- The existing storage facilities are very traditional and subject produces to losses.
- In developing countries the losses from inadequate storage are estimated to be 15-20% at the minimum.
- These storage losses of food grains occurs at all stages of between farm and final consumption.

what are the marketing Problems of Agricultural Products in Ethiopia?.....

- It occurs from ;
- **Physical damage** due to infection by pests, insects, rodents, etc
- **Quality deterioration:** discoloration and unpleasant odor which will be make the products unit for human consumption

4. Poor Handling, Packaging and processing

- In efficient agricultural product marketing, careful handling, suitable packaging are crucial activities.
- However, the existing conditions in these facilities are inadequate. Some of the problems related with handling, packaging and processing are:

what are the marketing Problems of Agricultural Products in Ethiopia?.....

- Rough and careless treatment in picking and initial handling of fruits and vegetables
- Green vegetables are packed in a heavy sacks or piled on to lorry in bulk
- Workers or passengers are allowed to ride on the top of load of lettuces and cabbage resulted in physical damage
- Careless loading of fruits, carrying of soft or delicates fruits in deep box – the pressure of weight above damage and crashes the lower level of the produces
- Unsanitary handling of products
- Frequent **Adulteration** of products with other dirty material to increase volume
- High percentage of cracked products resulted from driving of poorly loaded vehicles over bad roads at a high speed.
- Considerable losses during processing/ **wasteful processing techniques**

what are the marketing Problems of Agricultural Products in Ethiopia?.....

5.Inadequate Standard and Grading

- The purpose of standard and grading is to help buyer select the most suitable lots of produce for the use they have in mind.
- Accurate grading permit the buyers to purchase more precisely what they wants, reduces the purchasing risks and increases the utility and making the marketing system more efficient.
- However there is still inadequate standard and grading adulteration will become more serious problem for the short run advantage of traders.
- Therefore establishment of uniform standard and grading is great importance in agricultural marketing.

Marketing Problems of Agricultural Products continued.....

6. Poor/limited Market Information

- ❑ Market information is essential for producers, traders, consumers and government, if market mechanism is to work efficiently.
- ❑ Some relevant market information includes:
 - ✓ The character and supply of commodities
 - ✓ The present and expected of level of demand
 - ✓ Current price equations and future trends
 - ✓ Forecasts of production, consumption, and trend movements
 - ✓ Thus, timely collecting, analyzing, and interpreting a wide variety of data and disseminating information to various users are of crucial for modern marketing activities.

what are the marketing Problems of Agricultural Products in Ethiopia?.....

- The need for market information:
 - Useful in planning production and marketing
 - Reduces risks of marketing middlemen and consumers in purchasing
 - Facilitates the equitable distribution of marketing of agricultural products between surplus and deficit area areas through transport and storage facilities
 - Very useful for policy purpose/price policy and supply standardization/
 - Non-government and government institution like statistical agencies, banks, universities, media, etc. can provide market information

what are the marketing Problems of Agricultural Products in Ethiopia?...

7. Credit Services and Interest Rate

- Financing is one of the facilitating function of marketing. Money is a lubricant that facilitates the operation of market machine, which requires adequate credit services

- The source of credit could be:

1. Informal sources:

- Despite its great importance, large number of small farmers and traders are restricted to obtain credit services such rural money lenders, rich merchants, relatives and friends.

- These sources are not dependable for obtaining the required amount of credit at the proper time.

Marketing Problems of Agricultural Products continued...

2. Formal sources;

➤ In fact there are also formal credit sources in which the marketing agents have limited access for it.

These sources are:

- ✓ **Micro-finance**
- ✓ **Commercial bank of Ethiopia**
- ✓ **Development bank of Ethiopia**
- In general credit facilities are poorly accessed inadequate for most farmers and traders due to
 - ✓ High interest rate
 - ✓ Collateral problem
- NB: all agricultural marketing problems are closely interrelated.

Chapter 3: Agricultural Product Prices

Marketing Mixes

- 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

Marketing Mixes-----

Four P's

Product

Price

Place

Promotion

Four C's

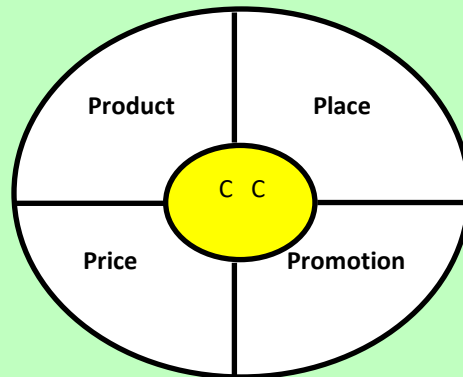
Customers solution

Customer cost

Convenience

Communication

- ✓ All the marketing mixes are for better customer satisfaction.
- ✓ Based on the mkting concepts, the whole activities of mkting are centered on customer value. Hence, customer is not part of the mkting mix.



Product

- It 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.

Place - reaching the target

- 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 mkts & in the mkting of services.
- Often the system is more complex involving many different kinds of middlemen and specialists.

Place - reaching the target-----

- If a marketing manager has several d/t target markets, several d/t channels of distribution might be needed.
- Most producers do not sell their goods directly to the final users; b/n them stands a set of intermediaries which constitute a mkting channel.
- Some intermediaries such as wholesalers and retailers - buy, take title to, & resell the merchandise; they are called the merchants.
- A merchant buys d/t 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.

Place - reaching the target-----

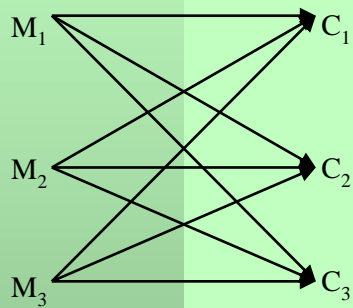
- Agents in big towns play an important role in the distribution of agricultural products.
- Agricultural products supplied from small towns pass on to wholesalers & retailers through these agents.
- These agents are important in channeling products from the point of production to the point of consumption.
- 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.

Place - reaching the target-----

- Intermediaries mostly achieve superior efficiency in making goods widely available and accessible to target markets.
- Through their contracts, experience, specialization, & 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.

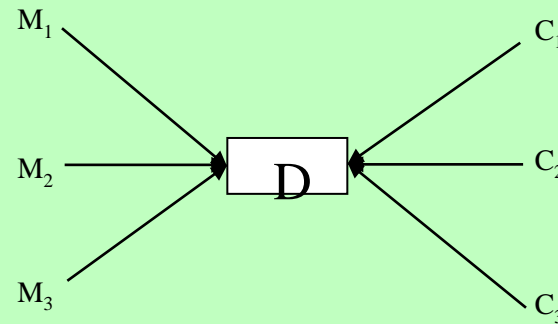
Place - reaching the target-----

Figure 4.1(a) No Intermediary



M – Manufacturer C – Consumer

Figure 4.2(b) Distributor intervener



• Fig (a) shows three producers (M₁, M₂ and M₃), each using direct marketing to reach three customers (C₁, C₂ and C₃). This system requires nine d/t 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.

Place - reaching the target-----

- 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

Prices and Pricing

- The economic value of goods and services, determined by the interaction of demand and supply.
- Guides decisions and economic activities of agents through signalling incentives and disincentives.
- Important variable both economically and politically
- Serves as a tool of intervention into markets to influence the behaviours of producer and consumers (price policies).
- Serves as a subject of policy intervention to influence income

distribution and others with welfare objectives.

❖ The task of pricing is reiterative b/c it takes place within a dynamic env't:

- ✓ shifting cost structures affect profitability,

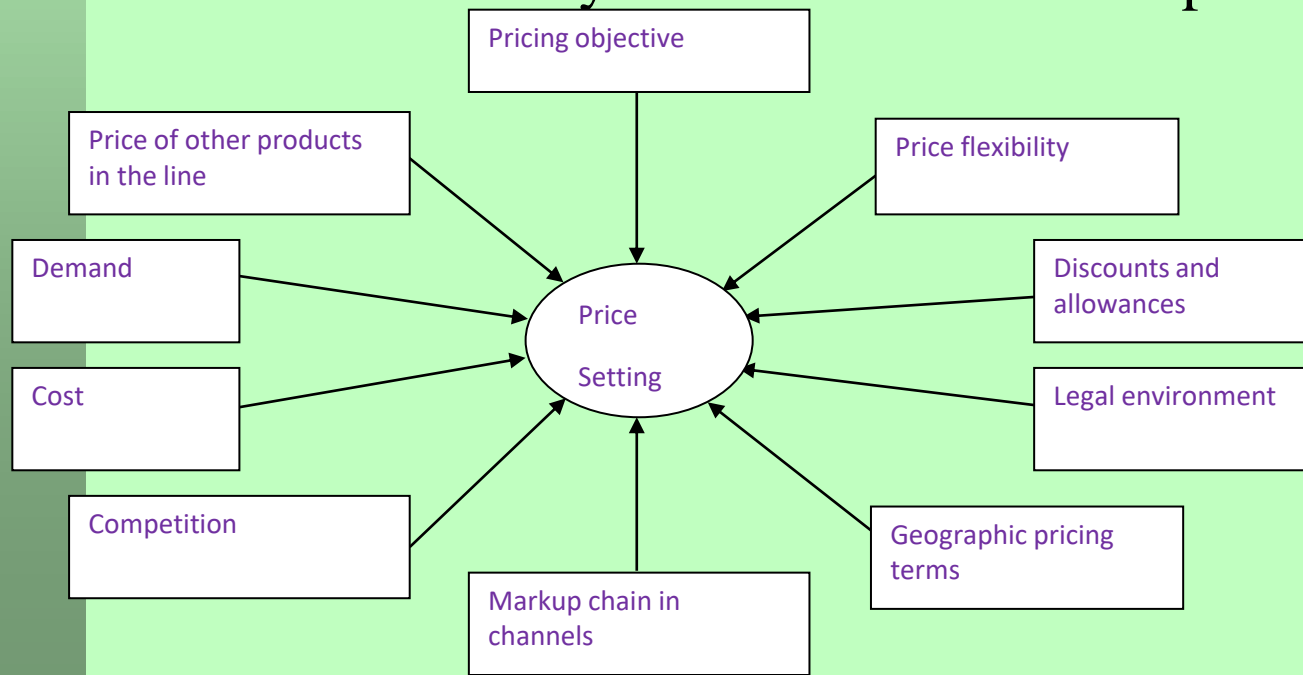
- ✓ new competitors & new products alter the competitive balance,

- ✓ changing consumer tastes and disposable incomes modify established patterns of consumption.

- This being the case, an organization must not only continually assess its prices, but also the processes and methods it employs in arriving at these prices.

-
- Pricing decisions are not made by organizations operating within some kind of vacuum.
 - When making pricing decisions marketers have to take into account a range of factors. Some of these are internal to the company, such as its marketing objectives, its marketing mix strategy and the structure of its costs.
 - Factors which are external to the company include the state of market development, the pattern of supply & demand, the nature & level of competition and a host of environmental considerations (e.g. legislation, political initiatives, social norms & trends within the economy)

-
- There are d/t strategies of setting prices.
 - The strategies can be categorized under two basic approaches: Cost-oriented & Demand-oriented price setting. Determinations of price require information on various aspects of the firm and external factors.
 - Below summarizes the key factors that influence price setting.



Pricing Objectives

- Whilst pricing objectives vary from firm to firm, they can be classified into six major groups
 - ❖ Profitability
 - ❖ Volume
 - ❖ Competition
 - ❖ Prestige
 - ❖ Strategic and
 - ❖ Relationship objectives.

Profitability Objectives

- Commercial enterprises, and their management, are judged by their ability to produce acceptable profits.
- Prudent managers are likely to take the strategic view when making pricing decisions. That is, they will not necessarily seek to maximize profits in the short-term at the expense of long-term objectives.
 - Example, profits may be low, or even negative, during a period when the company is seeking to penetrate a new market. Again, heavy investments in capital equipment and/or R&D may adversely affect the short-term profitability of an enterprise, but are likely to provide a foundation for longer term commercial success.
- **Target return on investment (ROI)** - This is a cost-oriented approach to pricing decisions.

-
- Typical pricing objectives might be a 20–25% annual rate of return on investment (after tax) and a 5–8% returns on sales.
 - **Maximizing revenues:** When it is difficult to calculate cost functions (e.g. when costs are indirect and/or are shared by different products) marketing managers often seek to maximize revenues when setting prices.
 - Managers 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.

Volume objectives

- Sometimes, 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 subject to this profit constraint.
- This is common where, as a matter of policy, a company commits itself to mass marketing, as opposed to serving narrow market segments.
- Minimum sales volumes can be more important than profit maximization in another situation.

✓ Example, agricultural machinery manufacturers will seek to keep volumes up, even if it means sacrificing potential profits, if their factories & skilled work force are kept employed as a result.

Maximizing market share: Another volume-related pricing objective is the maximization of market share.

- The organization's specific goals may be either to maintain its share of a particular market or to increase its market share.
- There is frequently a positive r/hip b/n high market share & profitability since the additional volumes help lower unit prodn costs.

Competitive objectives

- Pricing decisions must take into account the current behavior of competitors and seek to anticipate the future behavior of those competitors.
- **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.
- **Anti-competitive pricing:** In some cases, a firm might 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.

Prestige Objectives

- These objectives are unrelated to profitability or volume objectives.
- They 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.

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.
- **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.
- In this case, 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 & profitability of others within the range.
- 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.

Strategic Marketing Objectives-----

- **Target markets:** The sensitivity of buyers to prices can vary across d/t market segments. Some consumers will view products as commodities & therefore purchase mainly, or wholly, on price.
- Others will perceive d/cs b/n competing brands & will perhaps make their choice on the basis of characteristics such as quality, freshness & convenience rather than on price.
- **Product positioning:** The category into which a product is placed by consumers, & its relative standing within that category, is referred to as its position within the market.
- The same product can hold different positions depending upon which segments of its market are under consideration.

Strategic Marketing Objectives-----

- Price setters have take account of perceived price-quality r/ships.
- The product has to be priced at a level commensurate with the target quality image and market positioning.
 - ✓ Example, a manufacturer of a herbicide/pesticide 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.

Maintaining cash flow: Many businesses fail not so much b/c there is an inadequate demand for their products and services, but due to cash outflows running ahead of cash inflows.

Relationship pricing objectives

- Commercial organizations have several important stakeholders with which they must establish and maintain relations conducive to a positive operating environment.
- **Channel of distribution 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.

Relationship pricing objectives

suppliers.

- This producer sees its supplier as an extension of its own business
- **The general public-**Companies have to be careful in the way they report prices and profits since these can easily be perceived as being excessive.

Government- are often take a keen interest in the prices charged, particularly if the product is a staple food. **B/c the price of basic food items is a politically sensitive issue in most countries.**

Elasticity

- The elasticity of demand is the percentage change in the quantity of a product demanded divided by the percentage change in its price.
- The price elasticity of supply of a product is the percentage change in the quantity of product supplied divided by the percentage change in its price.

- $\eta_p = (\Delta q/q) / (\Delta p/p)$

A price cut will increase revenue only if demand is *elastic* and a price rise can only raise total revenue if demand is *inelastic*.

- Factors that influence the price elasticity of demand
 - the availability of substitutes
 - the number of uses to which a commodity can be put
 - the proportion of income spent on a particular product and
 - the degree of commodity aggregation.

Availability of substitutes

- Any commodity for which there are close substitutes is likely to have a highly elastic demand.
- Even relatively modest price increases are likely to bring about a sizeable fall in its demand as consumers switch to substitutes.
- **Number of uses to which a commodity can be put**
 - The more uses a commodity has, the more elastic will its price elasticity tend to be.
 - A price reduction is likely to increase demand in several end-use markets and total demand could be dramatically affected.
- **Proportion of income spent on the product:** The larger the product's share of the consumer expenditure, the more sensitive will the consumers become to changes in its price.
- The demand for most foods in poorer countries is generally more elastic than for comparable foodstuffs in rich countries

Degree of commodity aggregation

- The price elasticity of demand will depend on how widely or narrowly a commodity is defined.
- The demand for *meat* is normally more price elastic than the demand for *all meat*. Similarly, the price elasticity of *all meat* is likely to be more price elastic than the demand for *all food*.
- Commodity aggregation reduces the number of substitutes.
- Elasticity also tends to vary along a demand curve. In general, price elasticity of demand will be greater at higher price levels than at lower price levels.
- If demand for a product is inelastic then, *ceteris paribus*, total revenue will fall when price is reduced and will increase when price is raised.
- Conversely, when demand is elastic, total revenue goes up when price is cut and falls when price is increased.
- Clearly these patterns of demand, in response to price movements, are of fundamental importance to pricing decisions made by marketing personnel.

The meaning of price to consumers

- The price of a product or service conveys many diverse messages to consumers.
- Some consumers will see price as an indicator of product quality; others will perceive the price as a reflection of the scarcity value of the product or service; some others will view price as a symbol of social status; and yet others will simply see price as a statement by the supplier about the value he/she places on the product or service.
- Thus, consumers will perceive a given price in a variety of ways: as being too high or too low, as reflecting superior or inferior quality, as indicating ready availability or scarcity of supply, or as conveying high or low status

-
- Price as indicator of quality
 - In the absence of other information on which to base their judgment, consumers often take price to indicate the quality level of the product or service.
 - Low prices can, in certain circumstances, prove as much a barrier to sales as prices which are too high. If the product is perceived to be too cheap then consumers begin to question whether it can be of adequate quality.
 - In selecting not to purchase the cheapest brand among competing products, the consumer is seeking to avoid the risk of acquiring a product with a performance considered to be below substandard.

A, Cost - oriented Pricing Method

- Pricing strategies are of two generic types
 - those that are based upon the organization's **costs** and those to which some margin is added.
 - **Those that are market-oriented and Cost-plus approaches.**
 - Whereas **cost-plus approaches** to pricing are proactive, in that prices are largely determined by the organization's financial performance objectives, market-oriented approaches are reactive to market conditions and are shaped by the organization's marketing goals.

A. Cost-plus methods of price determination

- Used most frequently.
- Involves calculating all the costs associated with producing and marketing a product on a per unit basis and then adding a margin to provide a profit.
- The per unit profit can be expressed either as a percentage of the cost, in which case it is referred to as the *mark-up*, or as a percentage of the selling price, when it is referred to as the *mark-on*, or margin.

A. Cost-plus methods of price determination-----

$$\text{Mark-up} = \frac{(\text{Selling price} - \text{cost price}) * 100\%}{\text{cost price}}$$

Mark-on (margin) – more common

$$= \frac{(\text{Selling price} - \text{cost price}) * 100\%}{\text{Selling price}}$$

Example:

Cost price of teff	500
Seller's addition (mark-up)	200
Selling price	700
Mark up	40%
Mark on	28.6%

A. Cost-plus methods of price determination -----

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

A. Cost-plus methods of price determination---

- expenses that are closely related to output- expenses for raw materials, packaging materials, labor costs, sales communications, etc.
- At zero output level, TVC is zero. As output increases, so do VCs.
- TC- is the sum of TFC & TVCs. Changes in TC depend on variations in TVC since TFC stays the same. The pricing manager usually is more interested in cost per unit than TC b/c prices are usually quoted per unit.
- The basic problem with the AC pricing approach is that it does not consider cost variations at different levels of output.

A. Cost-plus methods of price determination-----

- 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.

A. Cost-plus methods of price determination-----

Breakeven Analysis

- The breakeven point is where the number of units of the product sold, at a given price, is just sufficient to cover both the fixed and variable costs incurred.

Number of units to breakeven = fixed cost/ (price-variable cost)

Example

- Say a seed company carries fixed costs of 100,000 birr.
- Assume a VC of production per quintal of seed be 500 birr.
- Suggested selling price per quintal 1000 birr.
- How much should the company sell before it breaks even

A. Cost-plus methods of price determination-----

$$= 100,000 / (1000 - 500) = 200 \text{ quintals}$$

- The company will wish to estimate total sales, and therefore total profitability, at a selling price of 200 birr per quintal.
- Marketing managers will repeat the same calculations for several possible selling prices.

B- Demand – oriented Pricing methods

- It is 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.
- It begins from a consideration of factors external to the organization, i.e. the marketplace.
- Two broad alternatives are open to companies launching new products on to the market: skimming or penetrating.

B- Demand – oriented Pricing methods----

Market Skimming Pricing involve setting high prices and heavily promoting the new product. The aim is to “skim the rich cream” off the top of the market.

- Profit objectives are achieved through a large margin per unit rather than by maximizing sales volumes.

Market Penetration Pricing aim to achieve entry into the mass market.

The emphasis is upon volume sales. Unit prices tend to be low.

- This facilitates the rapid adoption and diffusion of the new product.
- Profit objectives are achieved through gaining a sizeable sales volume rather than a large margin per unit.

B- Demand – oriented Pricing methods-----

- **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. Has different forms:
 - Segmentation pricing - prices are set to achieve an organization's objectives within each segment. Customers in different segments will pay different prices, for the same product. eg; railway 1st class, 2nd class, etc
 - Product-form pricing - different versions of the product are priced differentially, but often not in proportion to differences in their costs.
 - Time pricing - this involves varying prices seasonally. Typically this is done to encourage demand by reducing prices at times when sales are seasonally low and by raising prices to contain demand when it is strong and likely to outstrip supply.

B- Demand – oriented Pricing methods----

Psychological Pricing

- Pricing has psychological as well as economic dimensions and marketers should take this into account when making pricing decisions.
 - **Quality pricing** - when buyers cannot judge quality by examining the product for themselves or through previous experience with it, or because they lack expertise, price becomes an important quality signal.
 - **Odd pricing** - creates the illusion that a product is less costly than it actually is, for the buyer. An odd numbered price, like \$9.99, will be more appealing than \$10, supposedly because the buyer focuses on the 9.

B- Demand – oriented Pricing methods----

Product line pricing

- The practice of marketing merchandise at a limited number of prices. For instance, John Walker has 4 (Red, Black, Blue and Green) labels of Whisky priced (estimated) at \$15, \$30, \$60 and \$100, respectively.
- These price points are important factors in achieving product line differentiation and enable the company to serve several market segments.
- The skill in price lining lies in selecting price differentials which are sufficiently far apart for consumers to distinguish between them, but not so far apart that a gap is left for competitors to fill.
- **Customary pricing**
 - In the case of certain low cost products there is widespread resistance to even modest price increases.

B- Demand – oriented Pricing methods----

- Under such circumstances a common strategy is to maintain the unit price as far as is possible whilst reducing the size of the unit. This is termed customary pricing”.

Complementary product pricing is setting prices on several products as a group.

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.

4. Promotion

- Modern marketing calls for more than developing a good product, pricing it attractively, and making it accessible.
- Companies must also communicate with present & potential stakeholders, & 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.

Promotion---

- 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.

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.

Promotion---

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.

Promotion-----

- **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.

Promotion----

- 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

Promotion-----

- 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 dd 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.

Promotion-----

- 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.

Promotion-----

- 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 NP (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 MC.

Chapter4: Market Structure-Conduct-Performance Analysis

- 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;

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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:

•Are which together determine the conduct & performance of the market, are:

1. Concentration of Market Power:

- It is an important element determining the nature of competition and consequently of market conduct and performance.
- This is measured by the number & 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 b/n buyers & sellers at fair & competitive prices, & 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 gov't 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 mkt will be d/t from that of a mkt 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 & 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 & 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;

Market Performance-----

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;

Market Performance-----

- 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 & 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 mkt structure soon becomes obsolete b/c 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.

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- 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.

Chapter5:Price integration Application of market classification:

•Market integration

- 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

- It 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.
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

- It is expressed in the term CR_x , which stands for the percentage of the market sector controlled by the biggest x firms.
- Eg, $CR_3 = 70\%$ would indicate that the top 3 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.

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- 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 d/t mkt structure than 1 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.

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- 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 & 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%, & Case 2: One firm produces 80 % while the five others produce 2 % each.

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- 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 (b/c there's a change of over 0.025).

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- 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 mkt, & n is the no 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.

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- The maximum in this case is $100^2 = 10,000$.
 - There is also a normalized 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:

$$H = (H - 1/N) / (1 - 1/N)$$

➤ 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.

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- 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 un concentrated index.
 - An H index between 0.1 to 0.18 (or 1,000 to 1,800) indicates moderate concentration.

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- 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.

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- 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.

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- The Lerner Index for a mono 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.

Factors of spatial market integration

- Market integration, however measured, is the result of the action of traders, as well as the operating environment determined by the infrastructure available for trading & policies affecting the price transmission.
- All the measures of integration considered so far have in common the feature of being computed using only price information available in a specified period of time.
 - Each market link is summarized by just one number.
- However, markets are complex institutions and their performance as well as their integration is the result of numerous factors.

Factors of integration

- Among these factors, marketing infrastructure, price stabilization policies, the degree of dissimilarity in production in different areas, as well as supply shocks, are important explanatory factors of market integration.
- To test hypotheses concerning the effect of structural factors on market integration one needs to specify the explanatory variables mentioned above.
 - Marketing infrastructure includes transportation, communication, and credit. These variables are expected to

influence market integration positively.

Price stabilization policy

In order to test these hypotheses, it is necessary to get an index of the degree of price stabilization policy undertaken by a government in various affected areas. One simple way to do this is to consider the correlation between prices and end-of-period public stocks. This correlation is expected to be negative and its absolute value is taken to be indicative of the degree of price stabilization policy.

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- Production affects market integration through the degree of dissimilarity in self-sufficiency of various markets.
 - If mkt i is a surplus market & market j is a deficit market in the commodity under consideration, then the likelihood that i and j are linked by trade is higher than if both mkts were surplus or deficit areas.
 - The degree of dissimilarity is usually measured by the absolute value of the percentage difference in production per capita.
 - Another variable related to production is the number of

production shocks affecting various districts.

- The effect of these shocks on market integration is not clear a priori.
- When the production shocks are of a tremendous magnitude, one would expect market integration to be disrupted. In the case of normal production shocks, they may even positively affect market integration, in so far as they add incentives to trade between affected areas and other areas.

Thanks for your attention!!