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**Department of Commerce with Information Technology**

**21UCY302: MANAGERIAL ECONOMICS**

**Unit III: Market structure**

Market structure - characteristics - Pricing and output decisions - methods of pricing - differential pricing - Government intervention and pricing

**Meaning:**

Market structure refers to the way that various industries are classified and differentiated in accordance with their degree and nature of competition for products and services. It consists of four types: perfect competition, oligopolistic markets, monopolistic markets, and monopolistic competition.

**Types of Market Structure**

- 1. Perfect Competition Market Structure:** In a perfectly competitive market, the forces of supply and demand determine the number of goods and services produced as well as market prices set by the companies in the market.

**Perfect Competition Examples**

- Foreign exchange markets.
- Agricultural markets.
- Internet-related industries

**Characteristics:**

- Under perfect competition, there are a large number of buyers and sellers in the market.
- Under competition, the firms have no control over the price. They have to sell the products at a price predetermined by the industry.
- Under perfect competition, firms are free to exit and enter the market at any point in time. This means that there is no obstruction for a new firm to produce a similar product produced by the existing firms in the market
- Under perfect competition, firms can't charge high prices as both sellers and buyers have perfect knowledge about the goods and their prices.
- Under perfect competition, The products offered by different firms are homogeneous. This implies that buyers do not have any basis to prefer the goods of one seller over the goods of another seller. The goods are similar in terms of quality, size, packing, etc.

- 2. Monopolistic Competition Market Structure:** Unlike perfect competition, monopolistic competition does not assume the lowest possible cost of production. That little difference in the definition leaves room for huge differences in how the companies operate in the market. The companies under a monopolistic competition structure sell very similar products with slight differences they use as the basis of their marketing and advertising.

### **Monopolistic Competition Examples**

- Restaurants
- Hairdressers
- Clothing
- TV programs

### **Characteristics:**

- Under Monopoly competition, there is only one firm producing the product. Being a single firm, there is complete control over the supply and price of the product.
- There is no substitute for the products produced by monopolistic firms.
- Under Monopoly competition, there is a strong barrier for the other firms to enter the market. Also, once a monopoly firm starts producing the product, no other firms produce the same.
- Being a single seller of the product, the monopolistic firm has full control over the price of the product.
- The monopolist firm can sell different quantities of a similar product to a consumer at different prices or the same quantity to different consumers at different prices by judging the standard of living of the consumer.

- 3. Monopoly Competition Market Structure:** Monopolies and completely competitive markets sit at either end of market structure extremes. However, both minimize cost and maximize profit. Where there are many competitors in perfect competition, in monopolistic markets, there's just one supplier. High barriers to entry into the monopoly market leave a "mono-" or lone company standing so there is no price competition. The supplier is the price-maker, setting a price that increases profits.

### **Monopoly Competition Examples**

- Microsoft and Windows
- DeBeers and diamonds
- Your local natural gas company.

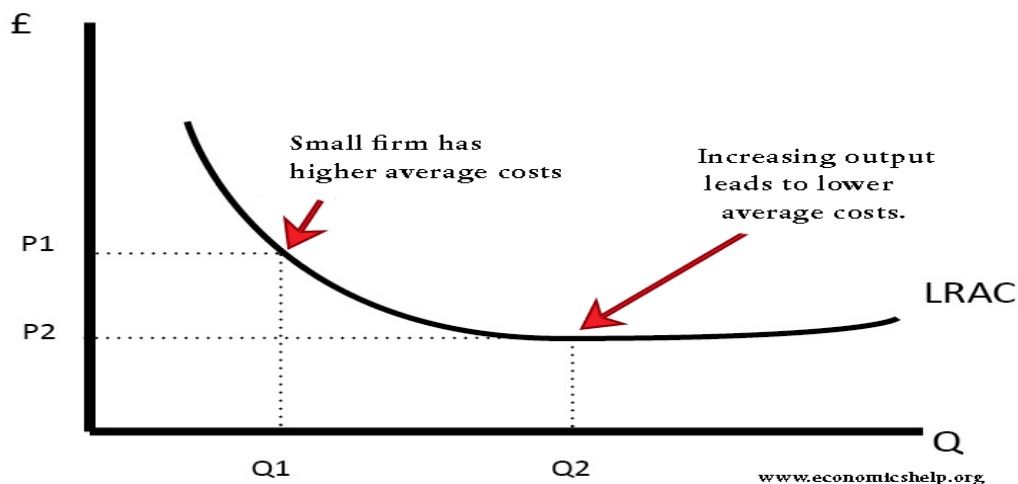
## Characteristics:

- Under monopolistic competition, a large number of firms sell closely related products.
- Product Differentiation is an important characteristic of Monopolistic Competition. This differentiation could be based on quality, packaging, color, etc. For example, you must have seen different brands of shampoos. Even if they look different and have different fragrances, the product has the same use.
- Under monopolistic competition, firms spend large amounts of money on advertisements of their product to attract more and more customers. Every firm tries to promote its product through an advertisement for which it bears some extra cost over and above its cost of production.
- Under Monopolistic Competition, firms compete with each other without changing prices. They may initiate different program schemes, gift schemes, or promotional schemes. Thus, firms compete in every possible way to attract a large number of customers and gain maximum possible market share.

## Advantages and Disadvantages of monopoly market:

### Advantages:

1. **Economies of scale.** In an industry with high fixed costs, a single firm can gain lower long-run average costs – through exploiting economies of scale. This is particularly important for firms operating in a natural monopoly (e.g. rail infrastructure, gas network). For example, it would make no sense to have many small companies providing tap water because these small firms would be duplicating investment and infrastructure. The large-scale infrastructure makes it more efficient to just have one firm – a monopoly. Note these economies of scale can easily outweigh productive and allocative inefficiency because they are a greater magnitude.



2. **Innovation.** Without patents and monopoly power, drug companies would be unwilling to invest so much in drug research. The monopoly power of patent provides an incentive for firms to develop new technology and knowledge that can benefit society. Also, monopolies make supernormal profit and this supernormal profit can be used to fund investment which leads to improved technology and dynamic efficiency. For example, large tech monopolies, such as Google and Apple have invested significantly in new technological developments.
  - However, this can also have downsides with drug companies able to charge excessively high prices for life-saving drugs. It also gives drug companies an incentive to push pharmaceutical treatments rather than much cheaper solutions to promoting good health and avoiding the poor health in the first place.
3. **Firms with monopoly power may be the most efficient and dynamic.** Firms may gain monopoly power by being better than their rivals.

**Disadvantages of monopoly:**

1. **Higher prices than in competitive markets:** Monopolies face inelastic demand and so can increase prices – giving consumers no alternative.
2. **A decline in consumer surplus:** Consumers pay higher prices and fewer consumers can afford to buy. This also leads to allocative inefficiency because the price is greater than marginal cost.
3. **Monopolies have fewer incentives to be efficient:** With no competition, a monopoly can make profit without much effort, therefore it can encourage x-inefficiency (organisational slack)
4. **Possible diseconomies of scale:** A big firm may become inefficient because it is harder to coordinate and communicate in a big firm.
5. Monopolies often have Monopsony power in paying a lower price to suppliers. A monopoly may also have the power to pay lower wages to its workers.
4. **Oligopoly Competition Market structure:** Not all companies aim to sit as a single building in a city. Oligopolies have companies that collaborate, or work together, to limit competition and dominate a different market or industry. The companies under oligopoly market structures can be small or large. However, the most powerful firms

often have patents, finance, physical resources which control over raw materials that create barriers to entry for new firms.

### **Oligopoly Competition Examples**

- Steel industry
- Aluminum
- Film
- Television
- Cell phone
- Gas

### **Characteristics:**

- In the oligopoly market, once prices of the products are fixed by the firms it is normally not changeable. Hence, the price of the products is rigid.
- As there are very few firms in the oligopoly market, there is a tendency among them to collaborate to avoid competition. They secretly meet each other to negotiate price and quantity. The aim behind this is to maximize profit.
- In the oligopoly market, selling costs such as advertisement, promotion, sales, etc to sell the product are determined by the firms.
- Interdependence is an important feature of the oligopoly market. As the number of firms in this market is few, any strategy regarding the change in price, output, or quality of a product depends on the rival's reaction to its success. Thus, the success of a price reduction policy by one company) will depend on the reaction of its rival.

### **Duopoly Market:**

A duopoly is a market in which two firms sell a product to a large number of consumers. Each consumer is too small to affect the market price for the product: that is, on the buyers' side, the market is competitive.

### **Characteristics of duopoly market:**

**1. Strategic interdependence:** The two firms in a duopoly are usually closely linked and interactive with one another. This is due to the fact that the decisions of one firm will affect the other firm, and vice versa. For example, if one firm lowers its prices, the other firm may feel pressured to lower its prices as well. There is a high level of mutual awareness between the two firms in a duopoly.

**2. Differentiation:** Duopolies often have a high degree of product differentiation. This means that the two firms offer slightly different products or services in order to attract different customers. The two companies work hard to distinguish themselves and their products from each other in order to gain market share.

**3. Barriers to entry:** There are typically high barriers to entry in a duopoly market. This means that it is very difficult for new firms to enter the market and compete with the two existing firms. The high barriers to entry can be due to numerous factors, such as high initial investment costs, government regulation, or patent protection

**4. Economies of scale:** The two firms in a duopoly often have significant economies of scale due to the size of their operations and the market share that they hold. This results in the companies being able to produce their goods or services at a lower cost per unit than their smaller competitors.

#### **Advantages and disadvantages of duopoly market:**

##### **Advantages:**

- Companies cooperate with each other to maximize their profits.
- There is a cooperative equilibrium that is known as collusive
- Companies compete friendly with each other to generate higher profits.
- Each of the companies is pending on the other's decisions to agree on prices and production. In this way they are able to reach an agreement to optimize their profits.
- As a result of the competition between duopoly businessmen, consumers are the ones who are favored because monopoly prices have been eliminated.

##### **Disadvantages:**

- It affects free trade opportunities between companies as they are dependent on each other.
- There is no diversified supply of goods and services whose production requires an enormous amount of capital.
- The theory that competition favors consumer interests is very difficult to achieve as the two companies will find themselves struggling to improve prices and to impose
- On many occasions, State must intervene in order to control both the quality of the goods or services offered and the setting of maximum prices offered to the public.

## Comparison of Types of Market Structure

Points of Comparison	Perfect Competition	Monopolistic Competition	Oligopoly	Monopoly
Number of firms in the market	Many	Many, but lesser than perfect competition	Few	One
Product Characteristics	Homogeneous	Differentiated	Differentiated	Single
Barriers To Entry	None	Slight	High	Very High
Firms Ability To Control Price	None	Slight	Slight	High
Examples	Farm products such as corns and wheat	Retail stores specifically clothing centers	Steel, airlines, automobiles, aircraft manufacturers	Utilities such as water, gas, cable television, etc

## Pricing Methods

**Definition:** Pricing method can be seen as the process of ascertaining the value of a product or service at which the manufacturer is willing to sell it in the market. The cost, market competition and demand are the three significant factors which influence a product's price.

Pricing of products or services is a crucial decision-making strategy of the firm. Since it has a long-lasting impact over the business and its existence. Hence, a suitable pricing method needs to be adopted for this purpose.

### 1. Cost-Oriented Methods

These are the traditional methods of product pricing. The major factors which influence the product price are the fixed cost, variable cost other overheads incurred in manufacturing the products.

#### a. Cost Plus Pricing

Cost-plus pricing is one of the simplest ways of price determination. A certain percentage of cost is added as a profit margin to the value of the product to acquire the selling price.

### **b. Mark-up Pricing**

It is a form of cost-plus pricing, but here the profit margin is presented as a percentage of expected return on sales. The formula for mark-up pricing is:

$$\text{Mark - up Price} = \frac{\text{Unit Cost (Fixed + Variable)}}{1 - \text{Percentage of Expected Return on Sales}}$$

### **c. Marginal Cost Pricing**

The primary aim of the company adopting this pricing method is to meet its marginal cost and overheads. The marginal costing method is suitable for entering the industries which are dominated by giant players, posing a fierce competition for the organization to sustain in the business.

### **d. Target Return Pricing**

The pricing objective in target return method is to attain a certain level of ROI (Return on Investment). The formula for determining the target return price is:

$$\text{Target Return Price} = \frac{\text{Total Cost + Desired Return on Investment}}{\text{Total Sales in Units}}$$

### **e. Break-Even Pricing**

This method is similar to break-even analysis, here the company needs to price the products such that it generates profit after recovering the fixed and variable costs. The selling price should be equal to or more than the break-even price (the point at which the sales revenue matches the cost of goods sold). The formula for ascertaining the break-even limit is:

$$\text{Break - Even Limit} = \frac{\text{Total Fixed Cost}}{\text{Selling Price Per Unit - Variable Cost Per Unit}}$$

## **2. Market-Oriented Methods**



In a highly competitive market, the company cannot survive with cost-oriented pricing. Hence, it needs to price its products according to the market demand and competitor's pricing strategy.

### **a. Going Rate Method**

'Follow the crowd' method is based on market competition, where the company price its product similar to the competitor's product price. If the market leader reduces the price of its product, the organization also needs to decrease its product price, even if the latter's cost of production is high.

### **b. Sealed Bid Pricing Method**

When it comes to industrial marketing or government projects, the supplier needs to bid specific product price, which he/she assumes to be the lowest, in a sealed quotation.

In other words, the organization needs to fill a tender, which indicates its costing and competitiveness. The pricing should be done smartly by estimating the profit margin at different price levels and enclosing the most competitive price.

### **c. Customer-Oriented Method**

This method is also called perceived value pricing. It is demand-based pricing where the company determines the product price on value perception in terms of consumer demand for the particular goods or service. This perceived value is based on the following constituents:

**Acquisition Value:** The acquisition value is based on the opportunity cost of a product or service, which is estimated through the comparison of the perceived benefit and the perceived sacrifice.

**Transaction Value:** The comparison of the customer's reference price (assumed or quoted price) with the actual price paid for the product or service is the transaction value.

**Direct Price Rating Method:** The customers need to determine the price of products displayed to them, where each product belong to a different brand.

**Direct Perceived Value Rating:** The buyers rate the different brand products on a scale of 0-100 according to their preference. The highest-rated product has the maximum perceived value.

**Economic Value to the Customer:** To determine the target market segment, the companies correlate its total product cost to the consumer benefits of the current product.

**Diagnostic Method:** The customers evaluate products of multiple brands on various parameters or attributes. Each attribute has an importance weight, and on multiplying it with the given ratings, the perceived value of each brand can be determined.

### **3. Other Pricing Methods**

There are specific other methods for determining the price of a product or service, other than considering the cost or market competition as the basis. These are explained in detail below:

#### **a. Market Skimming Pricing**

The skimming method is usually implemented in case of speciality, luxury or innovative products.

Here, the company avails the profit opportunity in the initial stage of marketing by selling the products at a high price in a non-price-sensitive market segment. Later, the prices are dropped down gradually to sustain in the market.

#### **b. Limit Pricing**

This is defensive pricing strategy. The company price its products immensely low (and this price is known as entry forestalling price), to retain the monopoly in the market. It is done to discourage the entry of competitors by presenting the business as unattractive and non-profitable.

#### **c. Peak Load Pricing**

The peak load method is demand-based pricing, where the companies charge high prices in the peak seasons or period when the demand for the product is quite high. However, in the off-peak time or season when the demand falls, the prices are kept low.

It is applied for seasonal product pricing, airline travel pricing, tourism package pricing, etc.

#### **d. Bundle Pricing**

Bundling refers to compiling of two or more products together and selling it as a single product. The company prices the complete bundle at a single price known as the offer price.

An organization can either opt for pure bundling, where the products in a bunch are strictly not available individually. Or it may go for a mixed bundling, i.e. the products in a bundle can be sold separately but at a higher price.

#### **e. Psychological Pricing**

This pricing method aims to influence the consumers mentally by posing a low product price.

#### **f. Internet Pricing Models**

Internet is a modern communication platform and therefore, provides vast scope for carrying out marketing activities. The different pricing methods for internet services (as a product) are as follows:

**Priority Pricing:** The consumer's priority for service quality determines the price of internet services; thus, the price increases with the quality of internet service.

**Flat-Rate Pricing:** The consumer is charged a fixed amount for availing the internet services for a defined period irrespective of the usage.

**Usage-Sensitive Pricing:** The utility tariff is divided into two sections, the provider first charges for the service connection and then for the usage in terms of price per unit (bit).

**Transaction-Based Pricing:** Here, the price is first charged for service connection and then each transaction is separately chargeable.

**Precedence Model:** The pricing here, is based on the security provided to the existing customers by setting up the priority of different applications. Data packets are formed based on network preference and are given different precedence numbers. In case of congestion, the packets are sent in the sequence of their assigned precedence numbers.

**Smart Market Mechanism Model:** This model is purely dependent on network congestion. It functions through a dynamic bidding system where the bit price fluctuates with the level of congestion or traffic in the network. The bidder with the highest bit or unit price wins the deal.

Every business organization has a different objective; not all the companies aim at profit-making. Some may look forward to capturing the market and others may focus on long term existence.

Thus, these organizational goals determine the pricing methods to some extent. However, the prevailing market trends or industry type also influence these decisions massively.

### **Differential Pricing:**

In a differential pricing method, the price of the same product is set differently based on customers, location, product form etc. The main objective of this method is profit maximization. This pricing is also called as discriminatory or multiple pricing.

Price is set based on the following factors –

- **Customer segment pricing** – Different people will pay different prices for the same product based on the segment they live in. For example, examination fees.
- **Image pricing** – Based on the image of the product in the market, companies will charge differently in the market for the same product. For example, clothes.
- **Product form pricing** – Based on product variant, companies will charge different prices for the same product. For example, the same mobile has different cost in change in colour, storage etc.
- **Location pricing** – Based on location of offering, companies will charge differently for the same product. For example, the cost of executive tickets is different from normal tickets in theatres.
- **Time pricing** – Price of the same product will change according to the time of purchase. For example, seasonal offers, air tickets etc.

### **Factors affecting prices of commodities -**

#### **1. Government policies:**

Government policies also affect prices of the commodity. Especially their Export and import policy for the purchaser and seller will have a huge impact on commodity prices. Like for example, our government increases import duty on crude oil, its price will show a similar increase in the price of a contract.

#### **2. Economic policy:**

Prices of commodities are also affected by the economic and political events of the countries that are producing or using that commodity. Low condition of that economy reduces the purchasing power of people of that country so as a result demand of commodity will fall and it also affects overall movement of prices.

### **3. Storage and Transportation factors:**

Almost all kind of commodities needs to be stored prior to its distribution. It is not another financial product so inventory cost and storage do not affect such a large impact on the market prices.

### **4. Demand and supply:**

Demand and supply are the important factors that force the movement of price in the commodity market. The rule of demand and supply plays the same role for both equity as well as commodity markets. However, demand and supply of all commodities change time to time. It depends upon national, seasons, and international conditions and many other major factors affect its characteristics.

### **5. Weather Situation:**

A number of commodities traded in these markets are agricultural goods, and these goods production depends on the weather most of the good are based on the season. A slight modification in weather conditions might affect the availability of commodities in the world market, thus weather condition affects the commodity market.