

## **Module – 3**

### **Market Structures**

#### **Market**

Market is a term which is commonly used for a particular place or locality where goods are bought and sold. According to Prof. Samuelson, “A market is a mechanism by which buyers and sellers interact to determine the price and quantity of a good or service.” Based on competition, the market structure has been classified into two broad categories:

1. Perfectly competitive. (Perfect Competition)
2. Imperfectly competitive. (Monopoly, Monopolistic competition and Oligopoly)

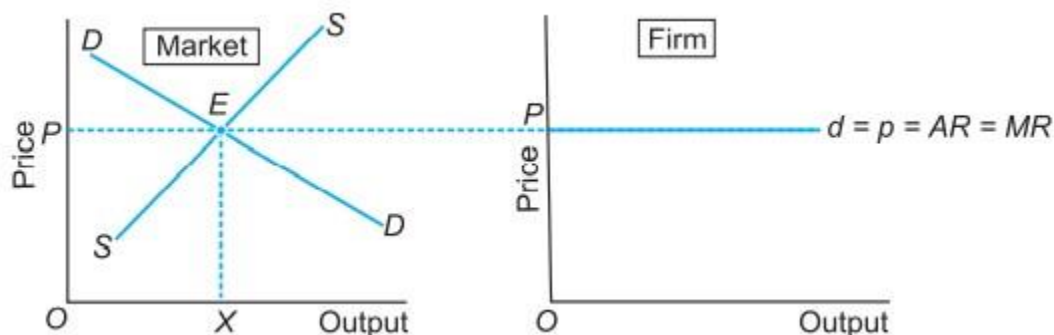
#### **Perfect Competition**

- Perfect competition is defined as a market structure in which an individual firm producing homogenous commodities cannot influence the prevailing market price of the product on its own.
- Perfect competition is a market structure characterized by complete absence of rivalry among individual firms.

#### **Features of Perfect Competition**

1. Very Large Number of Buyers and Sellers

There are so many buyers and sellers that no individual buyer or seller can influence the price of the commodity in the market. He is a price-taker having no bargaining power in the market.



The demand curve facing a firm is derived from the market equilibrium. In a perfectly competitive market, price of the commodity is determined by the intersection of the market demand and supply curves of the commodity. This occurs at point E where  $DD = SS$ .

## 2. Homogeneous Product

Firms in the market produce a homogeneous product. Homogeneity of a product implies that one unit of the product is a perfect substitute for another.

## 3. Free Entry or Exit of Firms

The industry is characterized by freedom of entry and exit of firms. In a perfectly competitive market, there are no barriers to entry or exit of firms. Entry or exit may take time, but firms have freedom of movement in and out of an industry.

## 4. Perfect Knowledge

Firms have all the knowledge about the product market and the factor market. Buyers also have perfect knowledge about the product market.

## 5. Perfect Mobility of Factors of Production

The factors of production can move easily from one firm to another. Workers can move between jobs and between places.

## 6. Absence of Transportation Cost

All goods are produced locally. Transportation costs are zero.

# **Equilibrium of a Competitive Firm**

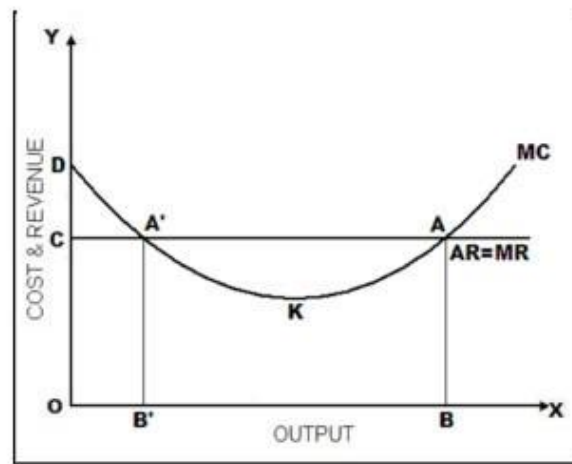
**We know that the necessary and sufficient conditions for the equilibrium of a firm are:**

1.  $MC = MR$

2. MC curve cuts the MR curve from below

In other words, the MC curve must intersect the MR curve from below and after the intersection lie above the MR curve. In simpler terms, the firm must keep adding to its output as long as  $MR > MC$ . This is because additional output adds more revenue than costs and increases its profits. Further, if  $MC = MR$ , but the firm finds that by adding to its output, MC becomes smaller than MR, then it must keep increasing its output.

### Equilibrium of a Firm using MC and MR Curves



Since it is a perfectly competitive market, the demand for the product of the firm is perfectly elastic. Further, it can sell all its output at the market price. Therefore, its demand curve runs parallel to the X-axis throughout its length and its MR curve coincides with the AR curve.

### **Monopoly**

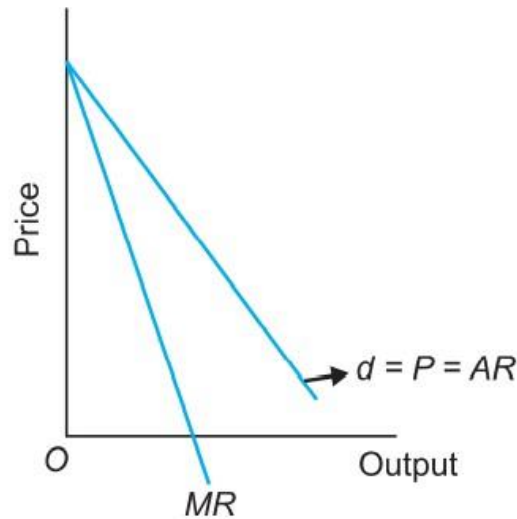
- The word monopoly is derived from two Greek words ‘mono’ means single and ‘polo’ means to sell
- Monopoly is a market in which a single seller sells a product which has no substitutes
- E.g. RBI , Rail transport

### **Features of Monopoly**

1. High barriers of entry: Competitors are unable to break into the market due to a single company's control of it.
2. Price maker: The Company that operates the monopoly can determine the price of its product without the risk of a competitor undercutting its price. A monopoly can raise prices at will.
3. Profit maximizer: a monopoly maximizes profits. Due to the lack of competition a firm can charge a set price above what would be charged in a competitive market, thereby maximizing its revenue.
4. No Close Substitutes. There are no close substitutes for the commodity. The product sold by monopolist has no close substitute.
5. High barriers to entry: other sellers are unable to enter the market of the monopoly.

6. Single seller: in a monopoly one seller produces all of the output for a good or service. The entire market is served by a single firm. For practical purposes the firm is the same as the industry.
7. Price discrimination: in a monopoly the firm can change the price and quantity of the good or service. It is the act of charging different prices for the same product from different consumers.

### **Demand Curve under Monopoly**

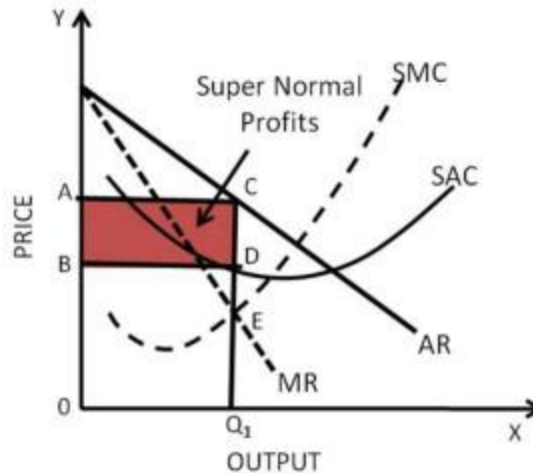


The monopolist produces all the output in a particular market. The monopolist is a ‘price-maker’. It does not mean that monopolist can fix both price and the quantity demanded. If he fixes a high price, less commodity will be demanded. The result is a downward sloping demand curve. The demand curve is a constraint facing a monopoly firm. Demand curve is also the price line and the AR curve. Since AR is downward sloping, MR lies below AR curve and is twice as steep as the AR curve.

### **Equilibrium under Monopoly**

Under monopoly, for the equilibrium and price determination there are two different conditions which are:

1. Marginal revenue must be equal to marginal cost.
2. MC must cut MR from below.



If the price determined by the monopolist is more than AC, he will get super normal profits. The monopolist will produce up to the level where  $MC=MR$ . This limit will indicate equilibrium output. In Fig. 10.6 output is measured on X-axis and price on Y-axis. SAC and SMC are the short run average cost and marginal cost curves respectively while AR and MR are the average revenue and marginal revenue curves respectively. The monopolist is in equilibrium at point E because at point E both the conditions of equilibrium are fulfilled i.e.,  $MR = MC$  and MC intersects the MR curve from below. At this level of equilibrium the monopolist will produce  $OQ_1$  level of output and sells it at  $CQ_1$  price which is more than average cost  $DQ_1$  by  $CD$  per unit. Therefore, in this case total profits of the monopolist will be equal to shaded area  $ABDC$ .

### Dumping

- It means a monopolist sells his product at a higher price in the home market and lower price in the international market.

### Regulation of Monopoly

1. **Promote competition.** In some industries, it is possible to encourage competition, and therefore there will be less need for government regulation.
2. **Quality of service.** If a firm has a monopoly over the provision of a particular service, it may have little incentive to offer a good quality service. Government regulation can ensure the firm meets minimum standards of service.
3. **Prevent excess prices.** Without government regulation, monopolies could put prices above the competitive equilibrium. This would lead to allocative inefficiency and a decline in consumer welfare.

## **Monopolistic Competition**

Monopolistic competition is a type of imperfect competition such that many producers sell products that are differentiated from one another. It is a market structure at which large number of sellers dealing with differentiated commodities. The main feature of monopolistic competition is Product Differentiation

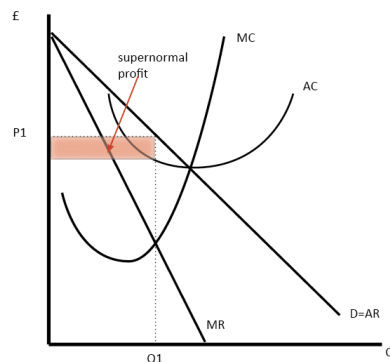
Product Differentiation means commodities marketed by each seller can be distinguished from the products marketed by other seller in the form of size, shape, brand, color etc..

The term Monopolistic comp was given y Prof. Edward H Chamberlin.

## **Features of Monopolistic Competition**

- ✓ Freedom of entry and exit.
- ✓ Firms produce differentiated products.
- ✓ Firms have price inelastic demand; they are price makers because the good is highly differentiated
- ✓ Large number of sellers
- ✓ Product Differentiation
- ✓ Freedom for entry and exit
- ✓ Advertisement and selling cost
- ✓ Lack of Perfect Knowledge

## **Price – Output determination under monopolistic competition.**



In the short run, the diagram for monopolistic competition is the same as for a monopoly.

The firm maximises profit where  $MR=MC$ . This is at output  $Q_1$  and price  $P_1$ , leading to supernormal profit. (Refer Monopoly)

## **Oligopoly**

An oligopoly is a market characterized by a small number of firms who realize they are interdependent in their pricing and output policies. The number of firms is small enough to give each firm some market power. The word oligopoly is derived from two Greek words 'Oligo' means few and 'Polo' means to sell. It is a market with few sellers dealing with homogenous and differentiated commodities. In oligopoly one firm's action will cause its competitors to react. This shows that firms have interdependence under oligopoly.

### **Features of Oligopoly**

#### 1. Few Firms with Large Market Share

A market may have thousands of sellers, but if the top 5 firms have a combined market share of over 50 percent, it can be classified as an oligopolistic market. This is because the power is concentrated between a few sellers who are able to exercise power over the market.

#### 2. High Barriers to Entry

Oligopolistic firms maintain their position through a number of barriers to entry. For instance, brand loyalty, patents, and high start-up costs are but to name a few. These make it difficult for new entrants to build a presence in the market and attract customers.

#### 3. Interdependence

Any action a firm takes in an oligopolistic market will strongly affect the actions of its competitors.

#### 4. Nature of the Product

The firms under oligopoly may produce homogeneous or differentiated product.

#### 5. Indeterminate Demand Curve

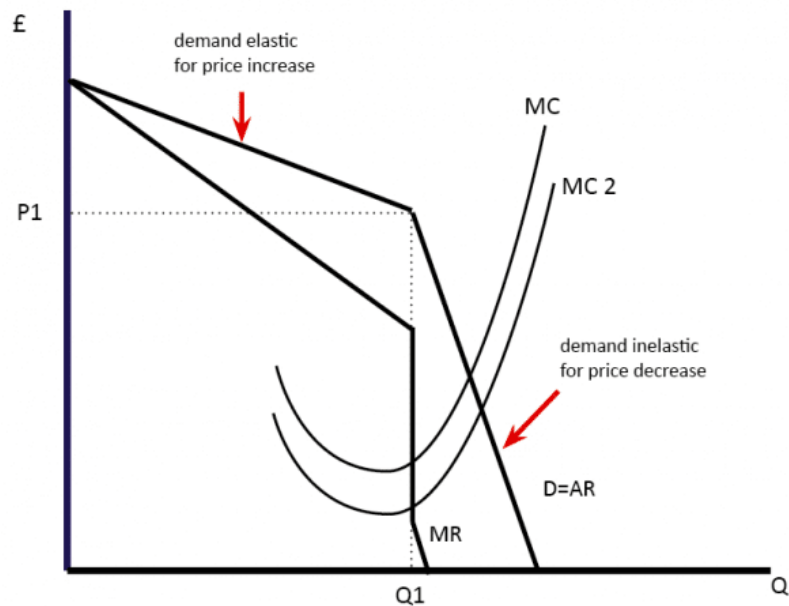
Under oligopoly, the exact behaviour pattern of a producer cannot be determined with certainty. So, demand curve faced by an oligopolistic is indeterminate (uncertain).

### **Price – Output determination under oligopoly**

The Kinked demand curve model was developed by Paul M Sweezy in 1939. The kinked demand curve is distinctive of an oligopolistic market. It shows how, at higher and lower prices, the elasticity of demand changes. As a result, prices remain relatively rigid.

As competitors keep their prices stable, the firm that increases prices will lose customers to cheaper rivals. At the same time, reducing prices won't increase demand. This is because price decreases will be met with fierce competition. In an oligopoly, when one firm reduces its prices, the others follow. In turn, any real gains in demand will be negligible.

### **Diagram of kinked demand curve**



### **Collusive Oligopoly**

**Collusive Oligopoly** Sometimes, firms may try to remove uncertainty related to acting independently and enter into price agreements with each other. This is collusion. Collusion is either formal or informal. It can take the form of cartel or price leadership. A cartel is an association of independent firms within the same industry which follow the common policies relating to price, output, sale, profit maximization, and the distribution of products. Price leadership is based on informed collusion. Under price leadership, one firm is a large or dominant firm and acts as the price leader who fixes the price for the products while the other firms allow it.

According to Samuelson "Collusion denotes a situation where two or more firms jointly set their prices or output, divide the market among them, or make the business decisions"

### **Non – Price Competition**

Non-price competition involves ways that firms seek to increase sales and attract custom through methods other than price. Non-price competition can include quality of the product, unique selling point, superior location and after-sales service.



## **Forms of non-price competition**

Loyalty card – Some big business have invested considerably in loyalty cards which give ‘rewards’ or money back to customers who build up points/spending.

Subsidized delivery - Amazon has been successful at pushing Prime Delivery accounts. This promises free next day delivery. Amazon is offering this delivery service as a loss leader. The cost of delivery is often higher than what a customer is actually paying.

Advertising/brand loyalty - Firms spend billions on advertising because repeated exposure to famous brands can make consumers more likely to buy ‘trusted’ brands.

After-sales service - For some goods, like TVs and car, offering free after-sales service can be a factor in encouraging customer trust. It can also be a profitable aspect of the business. For example, Apple Care offers a three-year warranty, but it is priced at a good margin.

Coupons and free gifts- Some sellers provide coupons and free gifts along with product.

## **Product Pricing**

By product pricing presents an opportunity to set the right price for the by products of the main core product so as to earn incremental revenue. It is very important to set the right price for the by product so that it can be sold. Like any other pricing,

## **Mark-up Pricing**

Markup pricing or cost-plus pricing is a pricing strategy where the price of a product or service is calculated by adding together the cost of the products and a percentage of it as a markup. The percentage or markup is decided by the company usually fixed at the required rate of return.

$$\text{Price} = \text{Cost (AC)} + m \text{ (Margin)}$$

## **Target Return Pricing**

It is a pricing method in which a formula is used to calculate the price to be set for a product to return a desired profit or rate of return on investment assuming that a particular quantity of the product is sold.

## **Penetration Pricing**

Penetration pricing is a marketing strategy used by businesses to attract customers to a new product or service by offering a lower price during its initial offering. The lower price helps a new product or service penetrate the market and attract customers away from competitors. Market penetration pricing relies on the strategy of using low prices initially to make a wide number of customers aware of a new product. The goal of a price penetration strategy is to entice customers to try a new product and build market share with the hope of keeping the new customers once prices rise back to normal levels.

## **Predatory pricing**

It is a method of pricing in which a seller sets a price so low that other suppliers cannot compete and are forced to exit the market. Predatory pricing involves charging very low prices, the aim being to get rid of competitors so that the supplier can charge considerably higher prices later. The predator is willing to sell at a loss – below cost – for a period, in the hope that its rivals either go bust or decide stop selling that product. When competing companies have left the market, the predator pushes prices back up.

## **Going rate pricing**

It is when a business sets the price of its product or service based on the market price. The Going-Rate Pricing is a method adopted by the firms wherein the product is priced as per the rates prevailing in the market especially on par with the competitors.

## **Price skimming**

Price skimming is a product pricing strategy by which a firm charges the highest initial price that customers will pay and then lowers it over time. As the demand of the first customers is satisfied and competition enters the market, the firm lowers the price to attract another, more price-sensitive segment of the population. The skimming strategy gets its name from "skimming" successive layers of cream, or customer segments, as prices are lowered over time.