Unit – V
MARKET STRUCTURE

I. MEANING AND DEFINITION OF MARKET

Market generally means a place or a geographical area, where buyers with money and sellers with their goods meet to exchange goods for money. In Economics market refers to a group of buyers and sellers who involve in the transaction of commodities and services.

CHARACTERISTICS OF A MARKET

1. Existence of buyers and sellers of the commodity.
2. The establishment of contact between the buyers and sellers. Distance is of no consideration if buyers and sellers could contact each other through the available communication system like telephone, agents, letter correspondence and Internet.
3. Buyers and sellers deal with the same commodity or variety. Since the market in economics is identified on the basis of the commodity, similarity of the product is very essential.
4. There should be a price for the commodity bought and sold in the market.

CLASSIFICATION OF MARKETS

A) Market according to Area

Based on the extent of the market for any product, markets can be classified into local regional, national and international markets.

Local Market

A local market for a product exists when buyers and sellers of commodity carry on business in a particular locality or village or area conditions only. E.g. Perishable goods like milk and vegetables and bulky articles like bricks and stones.

National Market

When commodities are demanded and supplied throughout the country, there is national market e.g. wheat, rice or cotton

Regional Market

Commodities that are demanded and supplied over a region have regional market.

Global Market

When demand and supply conditions are influenced at the global level, we have international market. e.g. gold, silver, cell phone etc. On the basis of demand and supply, this geographical classification is made. With improved transport facilities and communications, even goods of local markets can become international goods.

B) Market according to time

Marshall classified market based on the time element. In economics “time” does not mean clock time. It means only the division of time based on extent of adjustability of supply of a commodity for a given change in its demand. The major divisions are very short period, short period and long period.

Very Short Period

Very short period refers to the type of competitive market in which the supply of commodities cannot be changed at all. So in a very short period, the market supply is perfectly inelastic. The price of the commodity depends on the demand for the product alone. The perishable commodities like flowers are the best example.

Short-period

Short period refers to that period in which supply can be adjusted to a limited extent by varying the variable factors alone. The short period supply curve is relatively elastic. The short period price is determined by the interaction of the short-run supply and demand curves.

Long Period

Long period is the time period during which the supply conditions are fully able to meet the new demand conditions. In the long run, all (both fixed as well as variable) factors are variable. Thus the supply curve in the long run is perfectly elastic. Therefore, it is the demand that influences price in the long period.

II. MARKET STRUCTURES

Markets are classified in a number of ways. The most important basis of classifying markets, from the point of view of pricing of products, is according to the degree of competition.

Initially, we can classify markets into Perfect Markets and Imperfect Markets. When both sellers and buyers have a perfect knowledge of the market and when buyers have no preferences as to which sellers they purchase from a single price can get established throughout the market.

Thus, a single price in a market at a time, is an index of market perfection (or a perfect market) On the other hand, the possibilities of charging different prices in the same market indicates market imperfection.

Since, this classification is based on the degree of competition; an imperfect market can be further classified into a monopoly, a duopoly, an oligopoly and monopolistic competition. Similarly, a distinction can be made between pure and perfect competition. Let us discuss all these categories in detail.

(A) Pure Competition

Pure competition is said to exist in a market if the following conditions are satisfied.

(i) **Large Number of Buyers and Sellers** : The first necessary condition of pure competition is a very large number of buyers and sellers. An individual firm's supply in the total supply of the market is so insignificant that any change in the individual firm's supply has no effect upon the total market supply. Compared to the total market supply, a firms supply is like – a drop in the ocean. Even when such a firm closes down, the market supply remains unchanged. Similarly, an individual buyers and sellers have no influence whatsoever on the market conditions of demand and supply. As a result, a firm has to take the market price as given and adjust its individual supply to the price of the market.

(ii) **Homogeneous Product** : The second condition of pure competition is that the commodity produced by all firms is homogeneous or exactly identical. This condition ensures that no producer can charge a price which is higher than that ruling in the market. If a producer does so, he loses his customers to other producers who are also producing the same product. For example, if all farmers are producing A grade cotton, buyers have nothing to do with who has produced the cotton they buy. Nor has the firm any increase to advertise its products. Thus, when all products are exactly alike, a single uniform price will be established.

The homogeneity of the product, is however to be felt by the buyers. In spite of homogeneity of the product, if buyers feel that the product of firm X is superior to that of firm Y. The competition no longer remains pure. So, it necessary to say that the product in the market is homogeneous and the buyers take it to be so. In technical terms, the products of all producers are perfect substitutes of each other and the cross elasticity of demand for them is infinite.

Due these two conditions, the average revenue curve of a firm becomes parallel to the X-axis. (See figure 6.2 (b)) Due to the large number of sellers, no individual firm can influence market price. And from the consumer's view-point all producers are alike as their products are identical. No differences in price can, therefore, exit.

(iii) **Free Entry and Exit** : Unrestricted entry and exit is the third condition of pure competition. To keep the competition pure, it is necessary that every firm has full freedom of entry into as well as exit from the market. In other words, there should be no constraints on firms which want to come into or go out of business. This condition- especially freedom of entry – ensures that the number of firms in an industry will always be large. Government regulations or combinations of firms may restrict the entry of new firms into the industry. But if and when such restrictions appear, they mark the appearance of monopoly and competition no longer remains pure. Therefore free entry and exit is an important condition of pure competition.

(B) Perfect Competition.

Perfect Competition is an important concept in the price-theory. Perfect competition is a narrower concept than pure competition. For competition to be perfect, it has to satisfy all the conditions of pure competition plus, it has to satisfy three additional conditions. In other words, besides the three conditions mentioned above, which must be fulfilled for having a pure market, the form of a straight line parallel to the X-axis.

(i) **Perfect Knowledge of the Market** : That buyers and sellers should have a perfect knowledge of the market. This is the first necessary condition of perfect competition. Every buyer knows what price every seller is ready to offer and every seller knows what price every buyers is willing to accept. This knowledge guarantees uniform price throughout the market. Because there is perfect knowledge of the market, no seller will accept a price lower than that ruling in the market. Nor will any buyer offer a price higher than the market price.

(ii) **Absence of Transport Costs**: Another assumption of perfect competition is the absence of transport costs-or else, free transport facilities have to be assumed. In the absence of this assumption, the production costs of firms producing at two different centers will differ and, therefore, prices will be different. Different prices are an indication of market imperfection. That is why this assumption is important.

(iii) **Perfect Mobility of Factors of Production** : For a firm to adjust its supply to market demand, it is necessary that the factors of production are perfectly mobile. With the help of this assumption we can show how a firm and the industry can attain equilibrium.

Thus, when all the six conditions are satisfied, the market is said to be perfectly competitive. While drawing a distinction between pure competition and perfect competition, Prof. Chamberlin has pointed out that purity requires only the absence of monopoly, which is realized when there are many buyers and sellers of the same product. Perfection is concerned with other matters as well like mobility of resources, perfect knowledge, etc. Perfection is different from purity, meaning by the latter its freedom form monopoly elements.

(C) Monopoly

In classifying markets according to the degree of competition, we discussed perfect competition as an extreme case indicating maximum competition. The other extreme would therefore be a total absence of competition. Absence of competition means that there is only one producer. This is the state of monopoly.

1. Pure or Perfect Monopoly

Before going into the details of monopoly, it is necessary to have a clear idea of what we mean by monopoly. One possible variant of monopoly that can be conceived is pure monopoly. If there is only one producer of a commodity, the situation is described as a monopoly. But for a pure monopoly, the following conditions must be satisfied.

(i) There should be only one firm producing the commodity.

(ii) There should be no substitute for the commodity.

(iii)The above two conditions ensure that there is no direct competition. But as producers of all commodities are placing a claim on the limited incomes of the consumers, they are indirectly competing with one another. Absence of even this indirect competition is necessary for the purity of monopoly. Therefore this becomes the third condition of pure monopoly.

2. Difficulties in the Concept of Pure Monopoly

From the above discussion it is clear, that pure monopoly can never exist in practice. In case of pure competition, though it cannot exist, there might be situations which come close to that of pure competition. But pure monopoly is far off from reality and the concept of theoretical interest.

3. Simple or Limited Monopoly

Pure or perfect monopoly was mentioned merely as a possibility. However, an examination of the possibility revealed that we could not go any further in the analysis of monopoly equilibrium on the lines suggested by pure monopoly. It would therefore be desirable to build up some such model of monopoly that may be useful in the study of the market. Such a concept of monopoly may refer to a limited or imperfect monopoly but it will have the advantage of being close to reality and of being theoretically plausible.

We can say that simple monopoly exists in the market of a commodity when there is only one producer, and there is no close substitute for the commodity he is producing. This monopolist is obviously less powerful than a pure monopolist because there are substitutes to his product though they are not close ones. This fact the monopolist cannot afford to ignore. The supply of electricity by the Maharashtra State Electricity Board is an example of monopoly in this sense. There are substitutes for electricity; but they are no close substitutes. The Board is the only supplier of electricity, and as such, a monopolist in this sense.

Since there is only one firm producing a commodity , the distinction between the firm and the industry disappears ; both become the same .The **features** of monopoly , in this limited sense , can be summarized as under :

i. Single Producer : For a monopoly to exist , it is necessary that there be only one producer. The producer may be an individual , a partnership firm, a joint stock company or a government corporation. Because of this condition, the distinction between a firm and an industry disappears.

ii. Absence of close Substitutes : To rule out the possibility of a rival to the monopolist , it is necessary that there be no close substitutes for the product of the monopolist .For instance , a company may be the only one producing a particular brand of soap .But there are many other companies producing different brands of soap and each brand is a close substitute of every other brand .Such a situation cannot be called a monopolistic one. On the country, electric supply, where it is controlled wholly by a state electricity board, is an example of monopoly , as there are no close substitutes .

This condition of no close substitutes can be stated in terms of cross elasticity of demand as well. We know that cross elasticity measures the degree of responsiveness of demand for one product to the change in price of another product .Under monopoly, the cross elasticity of demand for the monopolist’s product is very low.

iii. Price: These two conditions together decide the power of the monopolist to determine the price .Control over price is the essence of monopoly. In perfect competition, a single firm has no control over prices .Under monopoly, the firm can control the price to a great extent .There are two courses open for the monopolist; either he can fix the price and adjust his supply to the market demand at that price, or alternatively, he can fix his supply and allow the price to be determined in accordance with the change in market demand.

iv. No Entry: There is no freedom to other producers to enter the market as the monopolist is enjoying monopoly power. There are strong barriers for new firms to enter. There are legal, technological, economic and natural obstacles, which may block the entry of new producers.

v. Firm and Industry: Under monopoly, there is no difference between a firm and an industry. As there is only one firm, that single firm constitutes the whole industry. .

Causes for Monopoly

1. Natural: A monopoly may arise on account of some natural causes. Some minerals are available only in certain regions. For example, South Africa has the monopoly of diamonds; nickel in the world is mostly available in Canada and oil in Middle East. This is natural monopoly.

2. Technical: Monopoly power may be enjoyed due to technical reasons. A firm may have control over raw materials, technical knowledge, special know-how, scientific secrets and formula that enable a monopolist to produce a commodity. e.g., Coco Cola.

3. Legal: Monopoly power is achieved through patent rights, copyright and trade marks by the producers. This is called legal monopoly.

4. Large Amount of Capital: The manufacture of some goods requires a large amount of capital or lumpiness of capital. All firms cannot enter the field because they cannot afford to invest such a large amount of capital. This may give rise to monopoly. For example, iron and steel industry, railways, etc.

5. State: Government will have the sole right of producing and selling some goods. They are State monopolies. For example, we have public utilities like electricity and railways. These public utilities are undertaken by the State.

Discriminating Monopoly

We assumed in our discussion of monopoly pricing that the monopolist charges only one price. But, the monopolist can charge different prices from different customers because he alone controls the price. If the monopolist discriminates between customers, the act is called price discrimination and such a monopoly is called a discriminating monopoly.

Essential Conditions for Price Discrimination –

There are three basic conditions which must be fulfilled for Price discrimination. The conditions are as follows.

1. **Monopoly Firm:** Price discrimination is possible only for a monopoly firm. It means that a firm under perfect competition cannot go for price discrimination, obviously as the customer may go to seller other than the discriminating one.
2. **Two or more markets:** The monopolist should have two or more markets for the same commodity with different elasticities of demand at a monopoly price. This enables the monopolist to charge higher price in the market having more inelastic demand and relatively lower price in the market having lesser inelastic demand for his product. This condition of different elasticities of demand in different markets is the most important condition because; if the elasticities are equal/ same the monopolist cannot increase his profits simply by distribution of his total output in different markets.
3. **No possibility of resale:** This condition is also important since, the possibility of resale of the commodity would deny the possibility of discrimination. If a consumer is in a position to purchase the commodity from the market where the price is low and resell it in the market where the price is higher, the monopolist will not be able to continue with the price discrimination. The two market should be totally separated from each other, otherwise the exchange of goods would take place between the customers. Thus there should be no communication between the customers of the two different markets. The

markets for services can be easily separated from each other. The doctor can therefore charge different fees from different patients for the same type of services. Thus, if the above conditions are fulfilled the monopolist is able to follow the policy of price discrimination.

Degrees of price discrimination:

1. Price discrimination of the **first degree** – Charging different price for different units of the same product from the same customer.

2. Price discrimination of the **second degree** – Under this, the buyers are classified into different divisions on the basis of their paying capacities.

3. Price discrimination of the **third degree** – Here, the markets are divided according to elasticity of demand

Types/ Methods of price discrimination:

There are various types or methods of price discrimination which are determined on the basis of the strategy or the policy adopted by the monopolist. Following are the main methods or types:

1. Discrimination according to markets: The monopolist may discriminate between the whole sale and retail market. Thus a commodity may be sold at a lower price in the wholesale market and at a higher price in the retail market.

2. Discrimination according to income: Discrimination can also be made on the basis of incomes of various customers. The financial consultant, doctor, lawyer may charge higher fees from a big businessman while lower fees from a small businessmen.

3. Discrimination according to time: The time when a commodity or service is bought may also constitute the basis for price discrimination. The rickshaw service hired during the night hours costs more fare. Doctors may charge higher fees for the night visits.

4. Discrimination according to national boundaries: A monopolist may charge higher price in the protected domestic market but a lower price across the national boundary. This in other words called as ‘dumping’.

5. Discrimination according to utility: Sometimes, different prices are charged from different customers according to the utilities conferred on them. Discrimination in first class and second class fares by railways is an example of this kind. The passenger travelling by first class gets more comforts for which he pays more.

6. Discrimination according to places: The place where the commodity is sold is also responsible for price discrimination. The set of ‘playing cards’ sold at railway station shop may cost more than elsewhere. Selling a product very cheap in the international market and charging a high price for the same product in the domestic market is a case of place discrimination.

7. Discrimination according to uses: Sometimes the monopolist may charge different price for the same service or commodity if used for different purposes. The electricity charges for example, are more for domestic use than for industrial use.

Imperfect Competition and Monopolistic Competition

We have so far discussed perfect competition and monopoly as two extremes. Though these two extremes are theoretically important, in practice, they do not actually exist. What one may cost in practice may, at best the approximations to perfect competition and monopoly in the form we discussed above. But when competition is not perfect, the situation can be called as one of imperfect competition. A very large number of sellers, homogeneity of product and perfect knowledge of the market are basis conditions of perfect competition. These conditions together ensure that no firm will have control over price, buyers will have no preferences regarding sellers and a single uniform price is established in the market. In the absence of these conditions, the market becomes imperfect. Imperfect competition can further be classified into monopolistic competition, oligopoly and duopoly. We shall presently discuss all these types of imperfect competition.

(D) Monopolistic Competition

Monopolistic competition, as the name itself implies, is a blending of monopoly and competition. Monopolistic competition refers to the market situation in which a large number of sellers produce goods which are close substitutes of one another. The products are similar but not identical. The particular brand of product will have a group of loyal consumers. In this respect, each firm will have some monopoly and at the same time the firm has to compete in the market with the other firms as they produce a fair substitute. The essential features of monopolistic competition are product differentiation and existence of many sellers. The following are the examples of monopolistic competition in Indian context.

1. Shampoo - Sun Silk, Clinic Plus, Ponds, Chik, Velvette, Head and Shoulder, Pantene, Vatika, Garnier
2. Tooth Paste - Binaca, Colgate, Forhans, Close-up, Promise, Pepsodent, Vicco Vajradanti, Ajanta, Anchor, Babool.

2. **Characteristic Features of Monopolistic Competition**

Monopolistic Competition is characterized by the following features.

(i) Existence of Number of Firms : An important condition of monopolistic competition is the existence of many firms. Though the number of firms in the industry is less than that under perfect competitions, the number has to be large enough to allow a healthy competition among the firms. Under monopolistic competition, the supply of even the largest firm is small in relation to the market supply. Usually, there are many small firms under monopolistic competition. Monopolistic competition is usually found in those fields of production where there are no special advantages of large scale production and where capital requirement is not very large and the decision of one firm have no effect on other firms.

(ii) Product Differentiation : Product differentiation is another significant feature of monopolistic competition, Products of different firms are not homogeneous as under perfect competition. On the contrary, every firm tries to impress upon the consumers the differentness and thereby, the superiority of its own product. Basically, the product may be the same, but even so, every firm attempts to differentiate its own product from the product of its rival firms. Thus, the situation is one in which there are many products in the market which are close substitutes of one another, but the product of every firm is different from that of every other firm. Therefore, there is competition among the various products (which are similar but not the same) and simultaneously every firm enjoys monopoly in the field of its own product. The markets of tooth- pastes, toothbrushes, toilet and washing soaps, face powders, other cosmetics, and many more products which we use every day are of this type. There is competition among the producers, but at the same time there is monopoly with regard to each brand that is why, the situation is termed as monopolistic competition.

A Product can be differentiated in many ways : (a) Differentiation may be based upon some characteristics of the product itself. Such differences may arise due to patented features, trademarks, trade names, peculiarities of packing, etc. Differences may also be qualitative, arising out of differences in workmanship, design, colour, style, etc. (b) Differentiation may arise due to conditions surrounding the sale of the product. For example, differentiation can be introduced by providing hire-purchase facilities, or by giving a guarantee for a particular period or by guaranteeing free after-sale services for a given period, or by agreeing to accept the return of the product or by providing home delivery, etc.

(iii) Selling Costs: From the discussion of 'product differentiation', we can infer that the producer under monopolistic competition has to incur expenses to popularise his brand. This expenditure involved in selling the product is called selling cost. According to Prof. Chamberlin, selling cost is "the cost incurred in order to alter the position or shape of the demand curve for a product". Most important form of selling cost is advertisement. Sales promotion by advertisement is called non-price competition.

(iv) Easy Entry and Exit : The fourth characteristic feature of monopolistic competition is free entry and free exit for firms. As stated above, when the requirements of capital are not very large, new firms can easily enter the field of production. Similarly, the exit of firms is also unrestricted. The number of firms in the market being very large, entry and exit of firms does not have any significant effect on the market supply.

(v) Multiplicity of Prices ; Due to factor-immobility, or transport costs or ignorance of market, a single uniform price cannot be established in the market characterized by monopolistic competition. On the contrary, similar products which are differentiated by brand names and advertisements are sold at different prices. Every producer enjoys the freedom to price his own product this freedom is within certain limits. Every producer has his own price policy. Under perfect competition, this freedom is not available to an individual firm.

(vi) Elastic Demand: The average Revenue curve of a firm under monopolistic competition is not parallel to the X-axis as it is under conditions of perfect competition. Because, the products of all firms are not identical, buyers can have preferences. So it is not possible for a firm to sell an infinite amount of the product at the ruling price as it is assumed to happen under perfect competition. Therefore, under monopolistic competition, the Average Revenue curve of a firm is not parallel to the X-axis as it is under perfect competition. Under monopoly, the average revenue curve of the firm is steep because there are no close substitutes for the product. Under monopolistic competition, on the other hand, a firm's product does have close substitutes, and therefore, the average revenue curve cannot be steep.

Thus, the AR curve faced by a firm under monopolistic competition is shallow indicating a highly elastic demand. There if a firm reduces the price of its product while prices of rival products are unchanged, there would a sizable increase in the sales of the firm.

Thus the market form with characteristics noted above, contains elements of both monopoly as well as competition and so it is called monopolistic competition. As already noted, commodities like tooth pastes, soaps, cigarettes etc. are produced under conditions of monopolistic competition.

(E) Oligopoly

Another form of imperfect competition is oligopoly or competition among a few. This type of market does not have only one producer as under monopoly nor does it have a very large number of sellers as under monopolistic competition. This is a market of a few or a limited number of sellers. The word oligopoly is derived from two Greek words *Oligo* meaning a few and *poly* meaning to sell. Thus, the meaning of the word itself explains what an oligopolistic market is like.

1. **Features of oligopoly**

The characteristics of an oligopolistic market are as under:

(i) **Few / Small Number of Sellers / Producers** : Few / Small number of sellers or producers is a basic characteristic of oligopoly. Oligopoly comes into existence when a few firms dominate the market of a commodity. Generally speaking, when we refer to the big three or the big six producers we mean that a major portion of the market supply of the product concerned is under the control of these big producers. Such a market comes under the oligopolistic category of markets even if the remaining twenty or twenty five per cent of the market supply is shared by a number of small firms.

When a number of firms producing for a market is small, every firm has a significant share of market supply. As such, the actions and policies of any firm will have repercussions on other firms. Hence while trying to improve its own position in the market; every firm has to consider the probable reactions on its rivals. The possible reactions of rival firms have to be taken into consideration while formulating policies regarding product price, advertising outlays, product quality and design and so on; this type of clear cut mutual interdependence is a special feature of oligopoly. Such an interdependence is absent in perfect or monopolistic competition, because the number of firms is large. The monopolist on the other hand, has no rivals and so interdependence is ruled out, by definition. However, under oligopoly, because of the small number of firms, the actions of one firm exercise direct influence upon other firms. In all probability, it is possible to identify the firm that has caused such repercussions and it can be expected that the affected firms react accordingly.

(ii) **Product Differentiation is not a necessary condition** : Product differentiation is possible under oligopoly, but it may not always be done. Generally, oligopolists produce more or less standardized products. Generally, Oligopolist firms producing raw materials or semi finished products offer almost uniform products to the buyers. For example, the production of iron and steel, copper or cement is dominated by a few firms and the products are more or less uniform. On the other hand, oligopolistic industries producing consumer goods offer differentiated products. For example, scooter tyres, cars, TV sets and many other durable consumer goods in India are produced under oligopolistic conditions and the products are definitely differentiated.

(iii) **Control over price circumscribed by Mutual Interdependence**.: Under oligopoly every firm is free to price its product, but this freedom is closely circumscribed by the mutual interdependence of firms which, as noted earlier, is a special feature of oligopoly. A firm can attract customers of rival firms to itself by lowering the price of its product. But the rival firms losing their customers will retaliate by further lowering the prices of their products. This will result in competitive price cutting also known as price-war. Ultimately, the entire firm in the industry will suffer losses. On the contrary, if a firm raises its price, it will lose its customers and the rival firms will gain by sticking to their existing prices. Price rising would thus result in pricing oneself out of the market. Thus, under oligopoly, though every firm is free to fix its price. There is a general tendency to adhere to the existing prices.

An alternative to price war or pricing oneself out of the market is to reach collusive agreement regarding pricing of products. Because the number of firms in the market is small. The group can agree to raise or reduce prices together. Once such agreement is reached, the group as a whole can control the market price as a monopolist does.

(iv) **Barriers to Entry** : In oligopolistic industries, obstacles to entry are formidable. Entry of new firms is prevented by ownership of crucial patents or ownership of vital raw materials. Many times technological conditions are such that production is economic only on a large scale. A new firm therefore will have to start production on a large scale from the very outset. It is not possible to make a modest beginning and expanding gradually as the firm gets established. As such, the scale of production also may make entry of a new firm difficult. Also, the existing firms enjoy advantages such as reputation of their brand names, long established distribution channels, good- will of customers etc. and any new firm desirous of entering the field will have to consider these factors which make entry difficult, However , entry of new firms is not impossible as it is under monopoly, it is only difficult.

(v) **Advertising and Sales Promotion** : Large amount of money are usually spent on advertising and sales promotion under oligopoly. However, the nature of an advertisement and the expenditure on it depends on whether the products are differentiated or not. If products are differentiated, every firm would spend large sums of money on advertising. This would be done to convince the consumers that its product is superior to those of its rivals. This would be competitive advertising. On the other hand, when products are standardized advertising is not competitive. Usually, some amount of expense is incurred on advertisements, but the purpose of advertising is to keep the firm in the public's eye. This is because the users of the products are themselves industrialists and skilled businessmen who know the quality of the product and who are not likely to be carried away by the claims of the advertisements. For instance, the users know the quality of steel produced by the Tata's, Mysore and Hindustan steel Ltd. and consequently advertising for them is scarce. But there is a great deal of competitive advertising for consumer products like tooth – pastes, hair oils and creams etc.

Quality competition attains great importance when products are differentiated under conditions of oligopoly. Therefore, oligopolist firms spend large sums of money on research and design as well as on packing, colour and so on.

2. The Basis of Oligopoly / causes

Why does an Oligopoly market exist? The obvious answer is 'because entry of new firms is difficult'. Thus, the factors that makes entry of new firms difficult act as the basis of oligopoly. These factors are as under:

(i) Patented techniques of production and control over the supply of raw material provide a cost advantage to the existing firm. This cost advantage acts as an obstacle to the entry of new firms.

(ii) If the products are differentiated, the buyers develop preferences and may have cultivated the habits of using a particular brand of product. This established habit of the buyers gives an advantage to the existing firms and acts as a deterrent to the new firms.

(iii) The production techniques, in some cases, are such as to take the optimum size of the firm to a very high level of production. Thus, if a commodity is to be produced at the lowest average cost, the scale of production is required to be large. This requires a large capital investment which new firms not dare to risk.

(iv) Existing firms which enjoy one or more of the above mentioned advantages may themselves create artificial barriers to the entry of new firms.

(v) As a part of the industrial policy, the government may make it compulsory for the new firms to obtain a license before starting production. The procedure of the industrial licensing, if it is cumbersome and lengthy, may itself create an obstacle to the entry of new firms.

PRICE UNDER OLIGOPOLY

Unlike the other market structures discussed so far, oligopoly presents a special situation where building up a single price theory is difficult. The difficulties involved can be summarized as under:

(i) Oligopoly includes several market situations like two three big firms dominating or all 10-15 firms competing, product- differentiation and standardization, firms acting in collusion or cut throat competition, strong barriers to entry or weak barriers to entry , and so on, As a result, one single solution, and that to determinate, becomes difficult.

(ii) Demand curve itself is not determinate. It can be a straight horizontal line or can be downward-sloping or can have a kink. This is because the reactions of consumers and rival producers to one's own price changes are unpredictable. In fact, different possibilities may give different demand curves.

(iii) Specific assumptions regarding the behaviour of the firms are also difficult to make. The variety of objectives of a firm hold good most strongly in oligopoly situations and therefore specific assumption about a single objective (e.g. Profit maximization) becomes difficult.

(iv) Finally, perfect or monopolistic competition require a theory of mass behaviour while monopoly calls for the theory of individual behaviour and both these the behaviour. For which one single theory is not possible.

Oligopoly Pricing

Under oligopoly , without product differentiation , there would be two possibilities , either the firms will come together and fix a single monopoly price or they will indulge in a price war and allow the price to fall to the level of a competitive price. The larger the number of firms in the market , the more difficult will it be to reach an agreement and the greater the chances of price to be a competitive price. In that case , the firm will in the short run face an indeterminate situation , but in the long-run, it will earn only normal profits and will reach an equilibrium like that of a competitive firm .

With product differentiation also, there are the same two possibilities noted above. However, because of brand-names, each firm has its own customers. Therefore, in the short-run the firms may get more freedom to raise or reduce their prices without losing their customer’s. In the long-run, however, they will have to count the possibility of their rival’s reactions. Accordingly; in the long run oligopoly equilibrium will be like that under monopolistic competition. When the number of firms is small, they can come together and fix a price that maximizes the profits of the entire group .Such an arrangement however will not last long because (i) every firm would like to have its own pricing freedom, (ii) the government’s anti-monopoly legislation may be evoked, or (iii) new firms can enter the market.

Therefore the possibility of price leadership, wherever possible, appears more tenable .One dominant firm will fix a price (like the monopolist) and try to maximize its own profits. Other smaller firms will pick up that price and adjust their supply to maximize their own profits.

Price Rigidity:

One of the characteristic features of Oligopoly is price rigidity. By whatever way, once the price is fixed, it tends to remain fixed or constant, in spite of changes in demand and cost conditions .Why prices tend to be rigid?

(i) Because the demand curve (i.e. response of customers to price changes) is indeterminate, a firm sticks to a price that has been established.

(ii) A new price would mean a new sales promotion drive, explanation of why price was raised etc. and still there is uncertainty.

(iii) Existing price must have come through phases of negotiations, conflicts compromises and rival strategies etc. A change in price may initiate a chain of actions and reactions again.

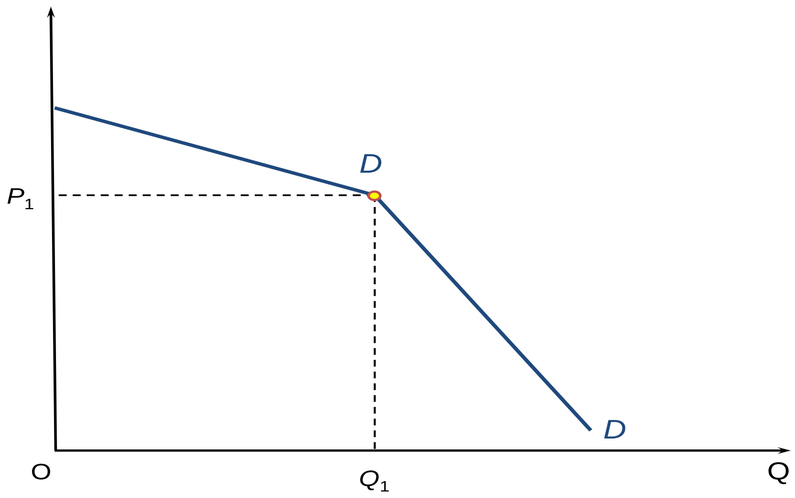
(iv) In the event of a fall in demand, firms would spend more upon advertisements and sales promotion rather than cut the price.

(v) The price could be already very low to prevent entry of a new firm.

In modern times , oligopolistic firms try to avoid price-competition by (a) intensifying technological competition , (b) seeking maximum productive efficiency through technological advance , (c) ensuring survival via technical superiority , and by (d) depending upon their R and D for long-run profits .

Kinky (Kinked) Demand Curve :

The kinked demand curve was first introduced by Paul M. Sweezy to explain price rigidity under oligopoly. The kinked demand curve represents the pattern of business behavior of a firm which has no incentive either to rise of or to lower its price. The firm formulates its attitude on an estimate of what its rivals will do or will not do.



Kinked demand curve under oligopoly

(F) DUOPOLY

Duopoly is a market situation where there are only two sellers. Duopoly can be with or without product differentiation. The important feature of duopoly is that the individual firm has to carefully consider the indirect effects of its own decision to change its price or output or both.

COMPARATIVE SUMMARY OF MARKET STRUCTURES

Table 6.1 will summarise a comparative picture of all market structures we have studied here.

Table 6.1

Characteristic Features	Market Structures			
	Perfect Competition	Monopolistic Competition	Oligopoly	Monopoly
1. No. of firms	Very large number	Many	Few	One
2. Type of product	Standardised	Differentiated	Standardised or differentiated	Unique no substitute
3. Control over prices	None	Limited	Circumscribed by mutual inter-dependence	Considerable
4. Entry	Free	Easy	Obstacles to entry	Blocked
5. Non-price competition	None	Emphasis on sales promotion	Significant with product differentiation	Mostly public relations
6. Example	Agriculture close to perfect but not perfect	Retail trade shoes clothes	Steel, electric fans tractors	Indian Railways

REVENUE – OUTPUT RELATIONSHIP

Profit- maximization remains the only most important motive of production because without obtaining maximum profit no firm can remain in business forever. The index of the success of production is the rate of profit. Even the success of a joint stock company is gauged by the rate of dividend. So theoretically speaking, profit maximization must be taken to be the only goal of production. Even while determining the ideal size of the unit of production, we have taken profit maximization as the only motive of production.

Measurement of profit necessitates calculations of total revenue and total costs. Just as costs vary according to the level of output, when the market is less than perfect. Therefore, we must consider revenue-output relationship of a firm so as to understand profit maximizing output and equilibrium of a firm.

As output and supply to the market increases, the market price falls. As a result, the per unit or average revenue that a firm gets by selling its output goes on diminishing. But this will happen only when as individual firm can influence market supply. Under conditions of perfect competition, a single firm's output is like a drop in the ocean. Hence, the market price is not affected by its increased or decreased supply to the market. Table 6.2 shows the changes in revenue in response to changes in output.

Table 6.2

Units	MR. (Rs.)	AR (Rs.)	TR (Rs)	*Units*	*MR (Rs.)*	*AR (Rs.)*	*TR (Rs.)*
1	50	50	50	*1*	*30*	*30*	*30*
2	40	45	90	*2*	*30*	*30*	*60*
3	30	40	120	*3*	*30*	*30*	*90*
4	20	35	140	*4*	*30*	*30*	*120*
5	10	30	150	*5*	*30*	*30*	*130*

(a) *(b)*

Part (a) of table 6.2 shows changes in revenue under monopoly conditions where only one firm is selling its output to the entire market. With increase in supply, market price falls. When two units are sold, the firm gets Rs. 90.This means an additions of Rs. 40 over the revenue when only one unit was sold (90-50) In this way, marginal revenue (MR) indicates the addition to total revenue. Average revenue can be obtained by dividing total revenue by the number of units sold. When 3 units are sold, average revenue (AR) is Rs. 120- 3= Rs. 40.

Fig. 6.2 (a)

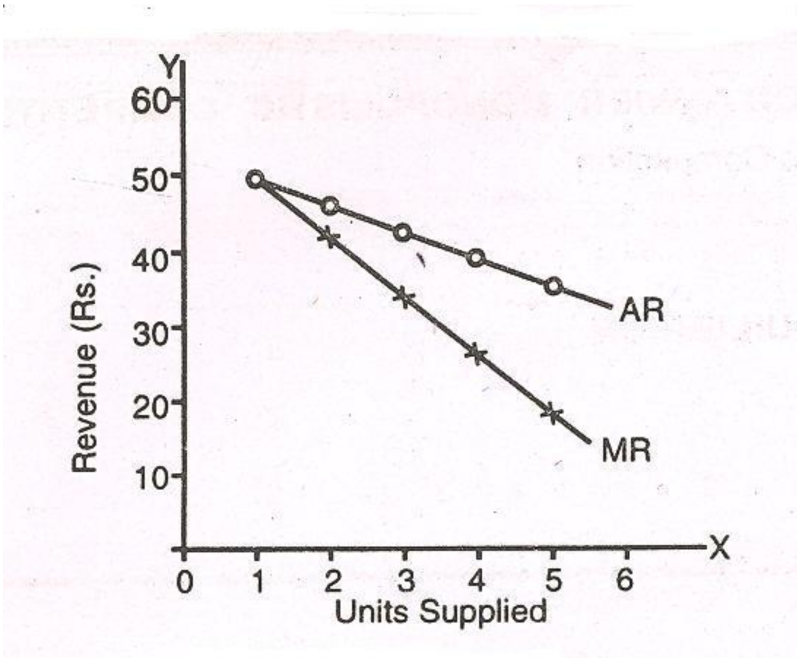
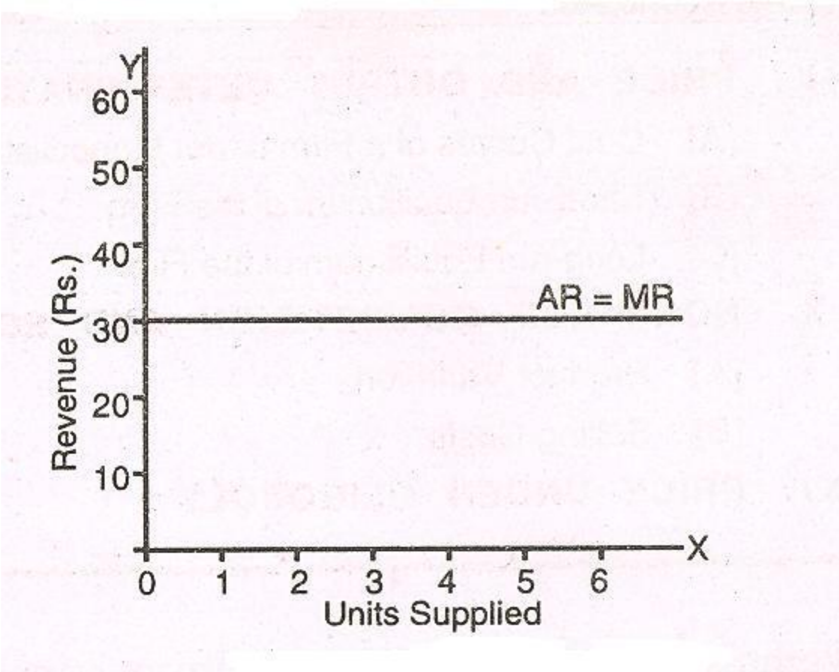


Fig. 6.2 (b)



Under conditions of perfect competition, however, the addition to the total revenue i.e. MR remains constant. Market price, under competition, remains unaffected by changes in a single firm's simply, As such, as shown in part (b) of table 6.2, the firm gets Rs. 30 when it sells one unit, Rs. 60 when it sells two units, and so on. Marginal Revenue remains constant at Rs. 30 and so does Average Revenue.

Fig. 6.2 shows revenue curves under the two conditions described above, Under imperfect competition or monopoly, the AR curve slopes downwards from left to right and the MR curve (also sloping downwards) lies below the AR curve. Under perfect competition however, the AR and the MR are the same and the AR= MR curve is parallel to the X-axis This figure is based on the data in the corresponding table given above.

MR, MC and Profit- Maximization

In the theory of price – determination, MR and MC occupy a crucial position. The producer is assumed to aim at profit. Maximization. In other words, the producer will produce that output which fetches maximum possible total profit under the given cost and revenue conditions. Such a level of output is indicated by the equality of MR and MC. In other words, profit is the highest at that level of output at Which MR and MC are equal, Table 6.3 will illustrate this point.

Total profit is total revenue minus total cost. In table 6.3, column No. 8 shows total profits (TP) which are obtained by deducting TC (col. 7) from TR (Col. 4) It will be seen that increasing total profits prompt the producer to increase output. Profits reach the maximum and start declining from the point where MR= MC. By producing 4 units, therefore, the producer gets maximum profits.

Table 6.3

Output Units	**MR (Rs.)**	**AR (Rs.)**	**TR (Rs.)**	**MC Rs.)**	**AC (Rs.)**	**TC (Rs.)**	**TP (Rs.)**
1	2	3	4	5	6	7	8
1	50	50	50	20	20	20	30
2	40	45	90	19	15	30	60
3	30	40	120	12	14	42	78
4	20	35	140	20	15 5	62	78
5	10	30	150	38	20	100	50

Questions:

1. How is the price of a product determined under conditions of Perfect Competition and Monopoly?
2. What is product differentiation?
3. Today we see oligopolistic conditions prevailing more in the market. Discuss.