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MEANING AND CHARACTERISTICS OF OLIGOPOLY

Introduction:

Oligopoly means a market in which there are few sellers competing with each other. It is that situation of imperfect competition in which there are only a few firms in the market which are producing either homogeneous product or close substitutes for one another which result into close competition among them. The number of firms is more than one but is not so large that one seller is in a position to take decisions regarding his price, product and selling effort without taking any note of the reactions which his rivals may have to his actions. In case there are only two sellers in the market. It may be called Duopoly, but this is also a special form of oligopoly because from the point of view of price theory the nature of problem is the same whether there are two or a few sellers. According to P.C. Dooley "An oligopoly is a market of only a few sellers, offering either homogeneous or differentiated products. There are so few sellers that they recognize their mutual dependence." According to J. Stigler "Oligopoly is that situation in which a firm bases its market policy in part on the expected behaviour of a few close rivals." In simple words Oligopoly is that market situation in which there are so few sellers that each of them is conscious of the results upon the price of the supply which he individually places upon the market.

3. Causes of popping up of oligopoly

There are certain reasons which have led to the blossoming of oligopoly. These are:

- Historical factors: Historically, oligopolies in industry have come into existence in two ways. Firstly, the industry may have been atomistic in structure but in the course of time a few firms may have expanded either with the overall market for the industry or at the cost of other smaller firms into large firms. These large firms may have been motivated by the desire to keep a dominant part of the market with them. Secondly, the industry may have been controlled from the beginning by a few firms who had the power to keep potential competitor out. In the industrially advanced economies, oligopoly may have emerged in both these ways.
- Mergers: Many oligopolies have been created by combining two or more independent firms. The combination of two or more firms into one firm is called merger. The main motives of mergers include increasing market powers, more resources, economies of scale and market extension etc.
- Patents and Legal Restrictions: in public utility sector, the entry of new firms is closely regulated through the grant of certificate by the state. This policy of exclusion of rivals may be due to diseconomies of small scale or of duplication of services. Another factor for the popping up of oligopoly is the patent right which a few firms

acquire in matter of some commodities. Patents have led to many of the most important industrial monopolies in America and elsewhere. • Superior Entrepreneurs: Another factor responsible for the emergence of oligopoly is the existence of superior entrepreneurs who, motivated by the desire for large gains or power, prestige or leadership, follow aggressive policy of ruthless competition against weaker rivals to force them to either go out or merge with them. • Economies of scale: As the size of production increases, firm enjoys internal and external economies of scale. Naturally, large firm enjoys internal economies of scale due to which such oligopoly arises. In certain areas, some firms dominate due to their old establishments. • Control of resources: In certain areas, oligopoly emerge because of hold of resources by a manufacturer, especially, when the substitute of resources are very costly. In such cases, the controllers of resources emerge as oligopolist. • Large Investment of Capital: The number of firms in an industry may be small due to the large requirements of capital. No entrepreneur will like to venture to invest large sums in an industry in which addition to output to the existing one may likely to depress prices. Further, the new entrant may also fear of provoking a price-war by the established firms in the industry. This is always true that in the midst of differentiated product, it is difficult to make a new product. • Difficulty of entry into the industry: Oligopoly may come into existence due to the difficulty of entry into industry. The main difficulty in the developing countries is the requirements of capital which is the cause of existence of oligopoly. 4. Features/characteristics of Oligopoly • Few sellers: In oligopoly, there are few sellers in the market, selling homogeneous or differentiated products. Due to small number of firms, policy of one firm influences the policy of other firm. • Advertising: In oligopoly a major policy change on the part of a firm is likely to have immediate effects on the other firms in the industry. So, the rival firms remain all the time vigilant about the moves of the firm which takes initiative and makes policy changes. Thus, advertising is a powerful instrument in the hands of an oligopolist. A firm under oligopoly can start an aggressive advertising campaign with the intension of capturing a large part of the market. Other firms in the industry will obviously resist its defensive advertising. • Competition: Under oligopoly there are a few sellers, a move by one seller affects the other sellers too. So each seller is always on the alert and keeps a close watch over the moves of its rivals in order to have a counter move. • Interdependence: The most important feature of oligopoly is the interdependence on each other. The oligopoly firm has to take into consideration the action and reaction of his rivals while determining its price and output policy. It is therefore clear that the oligopolistic firm must consider not only the market demand for the

industry's product but also the reactions of the other firms in the industry to any action or decision it may take.

- **Selling cost:** Due to interdependence among the firms selling cost becomes an important instrument in the hands of the firm to influence and attract buyers of each other. Under oligopoly, advertise can become a life and death matter where a firm which fails to keep up with the advertising budget of its competitors may find its customers drifting off to rival product.
- **Price rigidity:** Since, any change in the price of one oligopolistic firm leads to change in the price of other firms. Every firm tries to maintain price rigidity. The behavior of the oligopolistic firm is such that if one firm reduces the price, others will immediately follow it and if one increases the price, other will not follow. This type of attitude creates price rigidity. Hence, the firm would not like either to reduce or raise the price.
- **Indeterminateness of demand curve:** Mutual interdependence of firms create an atmosphere of uncertainty for all the firms. No firm under oligopoly is in a position to visualize the consequences of its price-output policy with any degree of certainty. This result into indeterminateness in the demand curve.
- **Lack of uniformity:** Lack of uniformity in the size of firms is the important feature of oligopoly. Firms are different in size. Some may be small or other may be large. Such a situation is asymmetrical. This is very common in the American economy. A symmetrical situation with firms of a uniform size is rare.

5. **Classification of oligopoly**

- **Pure and Differentiated oligopoly:** If the product produced by the competing firm is identical or same, it is pure oligopoly. Pure oligopoly model approximated in some of the capital goods industries, such as a cement production companies. On the other hand, if the product produced by competing firm is different, it is called differentiated oligopoly. Differentiated oligopoly is characteristics of a very large portion of the economy including most consumer goods manufacturing industries, and retail trade in most areas.
- **Partial and Complete oligopoly:** When the industry is dominated by one firm, is called Partial oligopoly. In this market situation, large firm acts as a leader and the other firms of the industry follow the price policy determined by their leader. In simple words other firms adopt that price which is set by leader firm. Complete oligopoly is that situation where there is no firm who act as leader or price maker or there is no leader and no followers.
- **Open and Close oligopoly:** Open oligopoly is that market situation where the new firms are free to enter the industry. There is no restriction of any kind for the desiring firms to enter into the market. Closed oligopoly is that market situation where the new firms are not allowed free entry into the industry.
- **Collusive and non-collusive oligopoly:** Collusive oligopoly refers to that market situation when the firms of the industry follow a common

policy of pricing. In simple words when all the firms decide mutually to share the market on the fixed price, is collusive oligopoly. On the other hand, lack of any understanding or agreement among the firms is called as non-collusive oligopoly. In this type of oligopoly firms act independently.

- Syndicate and Organized oligopoly: When the firms sell their product through a centralized syndicate or on the basis of degree of co-ordination, it is called syndicate oligopoly. In organized oligopoly, the firms organize themselves into a centre association for fixing price output quota.

6. Price and output determination under oligopoly

The existence of various forms of oligopoly of oligopoly prevents the development of a general theory of price and output. The element of mutual interdependence in oligopolistic market further complicates the determination of price and output. Although there are number of models of pricing under oligopoly yet the common models of oligopoly are of two types:

- 1) Classical oligopoly Models: Classical Models include:
 - a. The Cournot Model
 - b. Bertant Model
 - c. Edgeworth Model
- 2) Modern Models: Modern Models includes:
 - a. Price Leadership Model
 - b. Independent Pricing Model
 - c. Collusive Oligopoly Model
 - d. Kinky Demand Oligopoly Model
 - e. First Cost Pricing Model
 - f. Bonmol's Sales Maximization Model

As said earlier there are various models of oligopoly. Here we only discuss the most common models of oligopoly. These are:

- Price Leadership: Price leadership is, when the price at which most or all of the firms in the industry offer to sell is determined by the leader. So it refers to the market situation in which price is determined by one firm and then accepted by all the firms. This method was formulated by German Economist Prof. H. Stackelberg. This is also known as Leadership Solution or Followership Solution. Types of price leadership is as follow:
 - Price leadership of exploitative or aggressive nature: This is the firm when dominating big firms fixes the price and forces other firms that either to accept that price or go out of business. It is also called exploitative price leadership.
 - Price leadership of barometric nature: This is the firm follows a price fixed by the wisest producer.
 - Price leadership of the dominant firm: This is the firm when the largest firm fixes a price and other follow.
 - Effective Price leadership: This is the price which is accepted by the all firms who have same cost conditions and less elastic demand. This intends to eliminate wasteful competition.

Price and Output determination under Price Leadership Many Economists have developed various models concerning price and output determination under price leadership taking different perceptions like low cost firm leadership, dominant firm leadership etc. But, the low cost leadership is more accepted on economic consideration as shown under:

i In above diagram, DD' is the demand curve of total market being

faced by all the firms. MR is marginal revenue curve. Marginal cost of firm A is MC_A and marginal cost of firm B is MC_B . B is a high cost firm and attains equilibrium on point F where MC of firm B equalizes MR of market. The firm will sell ON output at NK price. Firm A is a low cost producing firm and attains equilibrium on point E and determines to sell OM output setting price MP. So firm A being low cost becomes a leader firm and B firm is to follow his price in the market. Hence, the firm B will be compelled to follow the leader firm A. The firm B will also charge MP price per unit as set by the firm A. The firm B will also produce QM output like the firm A. Thus both the firms will charge the same price MP and sell each of them OM output. The total output will thus be twice of OM. The firm A being the low cost firm will maximize profits by selling OM output at MP price. The profits of the firm B are lower than of firm A because its cost of production is higher than of firm A.

Price leadership by dominant firm: Most of the times, there is one large dominant firm and a number of small firms in the industry. The dominant firm fixes the price for the entire industry and the small firms sell as much product as they like and the remaining market is filled by the dominant firm itself. It will, therefore select that price which brings more profits to itself.

Independent Pricing Model As the name suggests, under Independent Pricing Model, all oligopolistic firms follow its independent price. The price fixed by each firm may be a more or less monopoly price because each firm produces a differentiated product. The price of all firms varies between upper limit and lower limit. There is not a single theory which can explain where the actual price is determined. There are certain possibilities:

- There may be complete price instability and thus price war accrues between the two firms.
- The price may come to settle at an indeterminate level as a result of the working of the market force
- The oligopolistic firm may accept the prevailing price.

Under this pricing model of oligopoly, the firms due to competition among them may come down to the lowest level for setting price. Generally, under Independent pricing policy, especially under differentiated oligopoly, lot of uncertainty and insecurity prevails in the market. So it cannot last for a long time in the market.

Collusive Pricing Model The modern economists are of the view that independent price determination cannot exist for long time in oligopoly. It leads to uncertainty and insecurity and to overcome them there is a tendency among oligopolists to act collectively by tacit collusion. Under this model, the high cost firm may accept leadership of the low cost firm but unworlily he may plan to revolt or resist the leader firm. Collusion means an agreement under which all the firms jointly keeping in mind the cost of all the firms fix price and sell the output in the market. The firm may have collusion through various

types of formal agreements. There may be a cartel under a centralized agency which is similar to monopoly. So collusive oligopoly is a situation under which all the firms jointly determine the price and share the market in view of their cost conditions with the intention to maximize the joint profits of the industry as a whole. The determination of price and output which will maximize the joint profit can be explained with the help of following diagram. diagram. AR is the aggregate demand curve of both the organizations and MC curves are the addition of MC1 and MC2 curves of firms A and B, respectively. The total output of industry is determined according to MR and MC of the industry. In this figure, OQ and OP are the equilibrium price and output of the industry. Now, this output will be allocated among the firms. This can be done by drawing a horizontal line from equilibrium point E of industry, towards MC curves of firms A and B. The points of intersection E1 and E2 are the equilibrium levels of the firms, A and B, respectively. OQ1 is the equilibrium output of firm A and OQ2 is the equilibrium output of firm B. Thus, $OQ1 + OQ2 = OQ$. These levels of outputs ensure the maximum joint profits of member firms. Collusive oligopoly is a modified form of monopoly under which consumers are being exploited by the seller and government may not permit the firm to form collusion. Kinky Demand Oligopoly Model The kinky demand curve model was developed by Prof. Paul M. Sweezy of America to explain price rigidity under oligopoly. The kinky demand curve represents the pattern of business behaviour of a firm which has no incentive either to raise or to lower its price. The firm thinks it best to adhere to the existing price unless some factors like cost compels him to change the In this figure AR is a kinky demand curve of a firm. Accordingly, MR has gap. MC equalizes MR in the gap determine OP price and OQ output to be sold. If due to increase in cost, marginal cost curve shift upward from MC2 to MC1, it again intersected MR within the gap resulting into no change in price or quantity. It means entire increased cost burden falls on the seller and his total cost decreases. In case, cost decreases, marginal cost shifted to MC3 downward. Again MC3 intersect MR in the discontinued gap. Price and output remains the same. The profit of the firm will increase. It becomes clear that if change in cost conditions affects the MC1 within the gap of MR, it does not bring any change in price and output. It is evident that price under oligopoly tends to be rigid unless drastic changes takes place in the cost conditions or demand.