**OLIGOPOLY**

‘*An oligopoly is an industry in which there are a small number of firms, each large enough to have an impact on the market price of its outputs’*. It is that form of imperfect competition where there are few firms in the market, producing either a homogeneous product or close substitutes of each other.

Oligopoly is an important form of imperfect competition. It is a market characterized by ‘competition among the few’ (2 to 10 firms) large firms. Prof. Stigler defines Oligopoly as that ‘situation in which a firm bases its market policy, in part, on the expected behaviour of a few close rivals’. Oligopolistic industries are quite common in the manufacturing, transportation and communication sectors of India. For example, Automobile industry (also, civil aviation, tele-communication, cement, arms and ammunition suppliers, etc.) is an example of oligopoly. There are a handful firms manufacturing trucks in India, such as, TATA Motors, Ashok Leyland, Eicher Motors and Mahindra.

Oligopoly market often emerges due to patent rights, difficulties of entry, control on vital resources, superior entrepreneurs or better access to technology, economies of scale, etc.

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| ***An oligopolist is neither a price-taker, nor a price-maker, but a price-searcher.*** |

**TYPES OF OLIGOPOLY**

The different types of oligopoly as mentioned by Machlup include: (i) Perfect collusion, where *firms act on complete concert for the maximisation of joint profits*. (ii) Imperfect collusion, where *firms do not have any explicit agreement* but have a tacit understanding; and (iii) Independent action on the part of firms.

**Pure Oligopoly** (perfect oligopoly): It occurs when the product is homogeneous in nature, e.g., steel or aluminum industry, cement, telecommunications, mineral water producing industry, etc.

**Imperfect** (**differentiated or discriminated**) **Oligopoly**: It occurs when the product is differentiated by the oligopoly firms, e.g., cars, paints, laptops, cell phones, etc.

**Collusive and Competitive (Non-collusive) Oligopoly:**

**Collusive Oligopoly** refers to a situation where firms formally or informally agree to limit competition between themselves. They may fix prices, set output quotas, limit product promotion in each others territory, etc.

There may be two types of collusion: Cartels and price leadership. Cartel is a formal collusive agreement. It is a perfect form of collusion (e.g., OPEC). A cartel performs a variety of services for its members such as fixing price for joint maximisation of industry profits and market sharing between its members.

**Non-collusive Oligopoly** refers to a situation where oligopolists have no agreement (formal, informal or tacit) between themselves. Firms are strong rivals of each other, i.e. they prefer to have competition rather than cooperation.

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| **Collusive Oligopoly Models** | **Non-collusive Oligopoly Models** |
| 1. Price leadership
2. Cartel
3. Quota
4. Mergers
 | Sweezy’s Kinked Demand Curve Model (Price Rigidity)Classical modelsGame theory modelPrisoner’s Dilemma modelBaumol’s sales revenue maximization model |

**Partial or Full Oligopoly**: Oligopoly is partial when the industry is dominated by one large firm which is considered as the leader of the group (price leadership model). In full oligopoly, the market will be shared by a few firms each with a sizeable amount.

**Syndicated and Organized Oligopoly**:

Syndicated oligopoly refers to that situation where the firms sell their products through a centralized syndicate. Organised oligopoly refers to the situation where the firms organize themselves into a central association for fixing prices, output, quotas, etc (OPEC nations often function in this line to stabilize price and increase profits from exports of petroleum products)

**CHARACTERISTICS (ASSUMPTIONS) OF OLIGOPOLY MARKET**

Barriers to entry and interdependence of the firms are the two most important features of oligopoly market. The basic features of oligopoly market are as follows:

**Interdependence**: In oligopoly market, each of the few firms enjoy a sizeable market share. They are mutually dependent or interdependent. Each firm is affected by its rivals’ actions. Likewise its decisions will affect its rivals. If a firm cuts price, increases advertising outlay and output, the sales of its rivals will be adversely affected. The rivals may retaliate sharply and the end result will be loss of some amount of profits for each of them. Firms recognise this interdependence. This recognition often encourages them to enter into an agreement (formal or tacit) to set prices or industry output. For instance, acting in a cooperative manner, OPEC members ensure remunerative prices of petroleum products by regulating total production of crude oil.

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| Mutual Interdependence: The action of one firm in the market affecting that of the other. |

**Indeterminate Demand Curve**: The strong interdependence of the few oligopoly firms makes their demand curve indeterminate. Any change in price by one firm may lead to change in prices by the rival firms. Therefore, the demand curve is not definite, i.e., it is indeterminate. According to the kinked demand curve hypothesis, the demand curve facing an oligopolist has a kink at the level of the prevailing price. The kink leads to indeterminateness of the course of demand for the product of the seller concerned.

**Few sellers and many buyers**: Oligopoly is a market of few sellers producing either homogeneous or differentiated products. Each firm is important and can affect the market price. In collusive oligopoly, firms form a cartel to avoid harmful competition and gain in profit by all. In non-collusive oligopoly, cut-throat competition and price-war often benefits consumers in terms of lower price and better quality products and services.

In this market of few firms, new entrants face lot of difficulties in entering industry. The entry barriers may include (i) requirement of huge initial investment, (ii) source of raw materials may be controlled by the existing firms, (iii) patent holders may not authorize (even against royalty) new firms to produce and market the patented products, etc.

**Advertising and selling costs**: A direct effect of interdependence of oligopolistic firms is that they have to employ different aggressive and defensive marketing techniques to maintain their market share intact or to increase their sales. ‘It is only under oligopoly that advertising comes fully into its own’.

The oligopolists normally avoid price cutting and try to compete on non-price basis because if they start undercutting one another, a type of price-war will emerge. As the customers try to buy from the seller who sells at the cheapest price (more applicable in the case of homogeneous product), a few firms may face closure (also, merger and acquisition of the weak firms by the bigger ones) or swelling debt burden may afflict the industry as a whole as was the case with Indian telecom industry in mid 2010. Being a few large firms, often oligopolists can be seen going for ‘persuasive advertising’. It is that form of advertising which persuades the buyer to buy a product even though there is no real need for it. This is a familiar case of automobile industry (luxury car segment in particular), mobile handsets, etc.

**Homogeneous and Differentiated products**: Oligopoly occurs when different firms deal in homogeneous product, e.g., steel or aluminum industry.

Differentiated oligopoly occurs when the oligopoly firms deal in heterogeneous products e.g., automobile industry or paints industry, etc.

**High cross elasticity of demand (why non-price competition?)**: Competition among the few with closely differentiated or homogeneous products is associated with high degree of cross elasticities of demand for their products. Fear of retaliation by rivals makes each firm more accommodative. Collusion, secret price concessions, non-price competition or avoiding price wars are common features of oligopoly. Each firm seriously takes into consideration the possible action and reaction of its competitors while making any change in the price or output.

**Sizeable market share due to entry barriers**: In oligopoly market, entry is difficult (due to the high initial investment requirements, or due to the strategy adopted by the existing firms, control over raw materials, etc.). Each of the existing firms enjoys a substantial market share. In pure oligopoly, firms often operate area-wise (for example, cement). In many other cases, they divide the markets among themselves very tactfully. In fact, most of the so-called examples of monopolistic competition actually constitute oligopoly markets. For example, more than 20 toothpaste brands are found in the market. But only 5 brands constitute 80 - 85% of the market share. These oligopolists by investing aggressively on the brand value and customers’ loyalty for the products with specific features have been controlling the market for long time.

 Fig. 6.1: Each of the oligopolistic firms hold substantial market share

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| Toothpaste by their unique features (as claimed by the firms) | % share of the market  |
| Toothpaste | 28.0 |
| Dentipaste | 18.0 |
| Shinibright | 12.0 |
| Brighter than white | 11.0 |
| Total hygiene  | 11.0 |
| Pasty stuff & others | 20.0 |

**Group behaviour**: The theory of oligopoly is a theory of group behaviour. Individual behaviour and the objective of profit maximisation are not valid in such a market. Each oligopolist closely watches the business behaviour of the rival firms and designs his moves (about price, output or advertisement) on the basis of some assumptions of how they behave or likely to behave.

**Fierce competition or constant struggle**: Competition is of unique type in an oligopolistic market. ‘Here, competition consists of constant struggle or rivals against rivals’.

**Price leadership**: In oligopoly often one or two firms are very big compare to others. The strongest (efficient / most experienced) firm often acts as the leader and sets the price first. The rival firms accept the leader’s price, which is in the interest of all.

**Price rigidity**: Price rigidity implies the inability of the market to make a price change, i.e., price remains sticky or inflexible. ***An oligopolist is neither a price-taker, nor a price-maker, but a price-searcher.*** It tries to find out the best possible price of its product by taking into account the possible reactions of its competitors. When a firm cuts the price, its rivals also cut the price by the same percentage or more. This results in a series of price cuts which is very destructive in nature for all firms. The Kinked demand curve shows that the upper segment of the demand curve is highly elastic, while the lower segment of the demand curve is inelastic. Thus, once price is fixed (which forms a kink), it stays there unless there is a major change in cost or demand of the product.

**Rise of Oligopolistic Firms in the Present World**

The pressure from powerful forces (MNCs, etc.) and the opportunities offered by the open economy regime are driving business houses to consolidate into oligopolies. The obstacles are getting less formidable due to the outward looking economic policies of the emerging nations and increasing mobility of capital. Merger and acquisition spree got a boost in the era of globalization. Many industries could maintain their pricing power and high market share through acquisition of rival brands on a continuous basis. For example, in the soap and detergent markets, respective HUL brands constitute Lux, Dove, Breeze, Pears, Hamam, Lifebuoy, Axe soap bar, Sunlight, etc. and Rin, Surf Excel powder, Vim, Wheel, Surf Excel liquid detergent, etc.

**Use of Sophisticated Technology:**

‘*The rewards for getting bigger are growing, particularly in the world of technology, media and telecommunications, where fixed costs are especially large and the cost of serving each additional customer is small*’. Gigantic size of the multinational corporations (MNCs) and their increasing control over the strategic raw materials across the globe and exclusive knowledge of production techniques were also helping growth of the oligopolistic market across sectors.

**Economies of Scale and Economies of Scope:**

*Oligopoly is found in many industries and in all advanced economies. It typically occurs in industries where both the perfect and monopolistic competition are made impossible by the existence of major economies of scale or of scope (or both*). For example, in industries like electricity, transport and communications, and defence, there are substantial economies which can be realized only at large scales of output. For these industries, the size of the market and the nature of the product may not simply allow the existence of more than a few large plants.

Hindustan Unilever Limited (HUL), for example, has acquired many brands over the years so as to derive the benefits of economies of scale as well as economies of scope. It has gone for both vertical and horizontal expansion in the fields of household care, personal care and hygiene. Now, its wide range of products include soaps, detergents, shampoos (Clinic plus), skin care (Lever Ayush brand), toothpastes, deodorants, cosmetics, tea (Taj Mahal), coffee, packaged foods, water purifiers (Pureit), etc.

Oligopoly is an important market structure in modern economies because there are many industries in which the minimum efficient scale is simply too large to support many competing firms. The challenge to public policy is to keep oligopolists competing, rather than colluding, and using their competitive energies to improve products and lower costs, rather than merely to erect entry barriers (Lipsey and Chrystal, 2004).

**Growing incidence of industries with high concentration**: High concentration implies a situation where a large proportion of total output is produced by a very small number of firms. For instance, apparently markets for toothpaste (Colgate enjoys very high market share), shampoo (Clinic plus) and cold drinks (Pepsi and Coca Cola) look like the examples of monopolistic competition. But a closer analysis of these markets reveals that only two to three brands accounted for 70 - 80 per cent of the market share. Merger and acquisition often convert monopolistically competitive market to oligopolistic in nature in the long run.

**Limit Pricing Policy:**

‘Some economists argue that intermediate market structures such as oligopoly lead to more innovation than would occur in either perfect competition or monopoly. Oligopolists face strong competition from existing rivals and cannot afford the more relaxed life of the monopolist’. Sometimes, the existing few large firms adopts a limit-pricing policy so as to prevent new entry (e.g., Indian telecom sector). Apart from undercutting prices, firms may also go for heavy advertising and product differentiation which may render fresh entry difficult.

**Higher Incidence of Vertical and Horizontal Integration**: (Also, see Fig. 5.4)

*When a company wishes to grow through a horizontal integration, it is seeking to increase its size, diversify its product or service, achieve*[*economies of scale*](http://www.investopedia.com/terms/e/economiesofscale.asp)*, reduce competition, or gain access to new customers or markets. To do this, one company acquires another company of similar size and operations, in the same industry*. For example, Coca-Cola India, a beverages company acquired Maaza, Thumps Up, Limca, etc in 1990s with the objective of increasing its market share and pricing power. The frequent acquisitions in the beverages market give way to oligopolistic nature of such market.

On the other hand, growing through a vertical integration implies strengthening integrated firm’s [supply chain](http://www.investopedia.com/terms/s/supplychain.asp), reducing cost of  [production](http://www.investopedia.com/terms/p/production-cost.asp), capture [upstream](http://www.investopedia.com/terms/u/upstream.asp) or [downstream](http://www.investopedia.com/terms/d/downstream.asp) profits, or access downstream [distribution channels](http://www.investopedia.com/terms/d/distribution-channel.asp). *To do this, one company acquires another company that is either before or after it in the supply chain process.* An example of a vertical integration is when an automobile company acquires a [tyre](https://en.wikipedia.org/wiki/Tire) company or an electric appliances company or a [glass](https://en.wikipedia.org/wiki/Glass) company. It is a case of backward (upstream) vertical integration. A forward (downstream) integration occurs when a company decides to take control of the post-production process (www.investopedia.com).

In the era of globalization, the growth of oligopolistic nature of market can be attributed in part to much higher incidence of vertical and horizontal integration. Sometimes, this was necessitated by unhealthy competition among the existing players. In such cases, most of the regulators show leniency towards consolidation. However, the increasing incidence of forceful acquisition of small players by the giant industrial houses warrants regulation by the government.

An example of horizontal integration in the medicine industry was the Sun pharma and Ranbaxy merger. In 2015, Sun pharma and Ranbaxy merged into one company. Both used to produce, among others, some life saving drugs for the domestic and foreign markets. The acquisition will give pricing power to Sun pharma in critical care segment of medicines. The consolidation of telecom industry in India is another example of horizontal integration which was badly needed for sometimes. The telecom industry has seen high incidence of acquisition and merger. For instance, S-tel, Siestema Shyam, Telenor, Aircel, etc. were either merged with the bigger firms or sold-out. It is important to note that, after the proposed merger of Idea with Vodafone (and Bharti Airtel with Telenor), the share of the largest three Indian telecom operators (third one is Reliance Jio) will be over 90 per cent in the market. Note that the breakneck competition benefited the consumers as mobile data rates dipped to about 10 per gigabyte in 2017, from about  200 per GB a year ago.

**Patent Rights**: One important source of oligopoly is the patent rights and other exclusive franchise which a few firms may have acquired in the sphere of production of some products. With the birth of WTO, the rules regarding protection of intellectual property rights (IPRs) were made very strict which favoured the emergence of oligopolistic nature of market.

Formation of regional trade blocks, MNCs’ control over indispensable natural resources which were earlier owned by the governments, etc. were also responsible for the growth of oligopoly markets.