UNIT -3

INTRODUCTION TO MARKETS, THEORIES OF THE FIRM & PRICING POLICIES

Introduction:

The term 'market' is derived from the Latin word 'marcatus' implying to trade, merchandise, where traffic, trading place where business is conducted.

Market is a place where buyer and seller, goods & services are offered for the sale and transfer of ownership occurs. A market may be also defined as the demand made by a certain group of potential buyers for a good or service.

Today with increasing technology with modern facilities, the definition of market has undergone a great change. In the modern context, market refers to a meeting point of the buyer and seller, not necessarily a geographical one. It is not necessary that the buyer has to meet the seller in person. While the traditional avenues such as value payable by post (VPP) continued to be popular, E-commerce through has been the latest platform performs to sell larger volumes of their products and services with online negotiations where necessary. Ex: AMAZON, OLX etc.,

Definition:

According to Philip Kotler, "Market *consists of all the potential customers sharing a particular need or want who might be willing and able to engage in exchange to satisfy their need or want*".

Prof. H.E. Mitchell in his popular book, '*Principles of Marketing' stated, in fact, market must be thought not as a geographical meeting place, but as any place getting together of buyers and sellers, in person, by mail, telephone, telegraph or any means of communication*".

The American Marketing Association defined market as "*the aggregate demand of the potential buyer for a product or service". Thus, a market is a group of buyers and sellers involved and interested in negotiating the terms of purchase/ sale of goods and services.*

Size of Market:

The size of market depends on many factors. Such as nature of products, nature of its demand, taste and preferences of the customers, their income level, state of technology, transport facilities and so on. The rapid technological development brought the entire community of buyers and sellers are very close to each other.

Market structures/ Market Morphology:

It refers to the characteristics of a market that influence the behavior and performance of firms that sell in that market. The structure of market is based on its following features:

a) **Degree of sellers concentration**: it means the no. of sellers and their market share for a given product or service in the market.
b) **Degree of Buyers concentration**: this refers to the no. of buyers and their extent of purchases for given product/ services in the market.
c) **Degree of product differentiation**: This refers to the extent by which the product of each trader is differentiated from that of the other. Product differentiation can taske several forms such as varieties, brands all of which are sufficiently similar to distinguish them,as a group from other products (eg: cars).

d) **The conditions of entry into market**; More often there could be certain restrictions to enter into /exit from the market. The degree of case with which one can enter into the market or exit from the market also determines the market structure.

1) **On the basis of AREA** : Markets can be divided as-

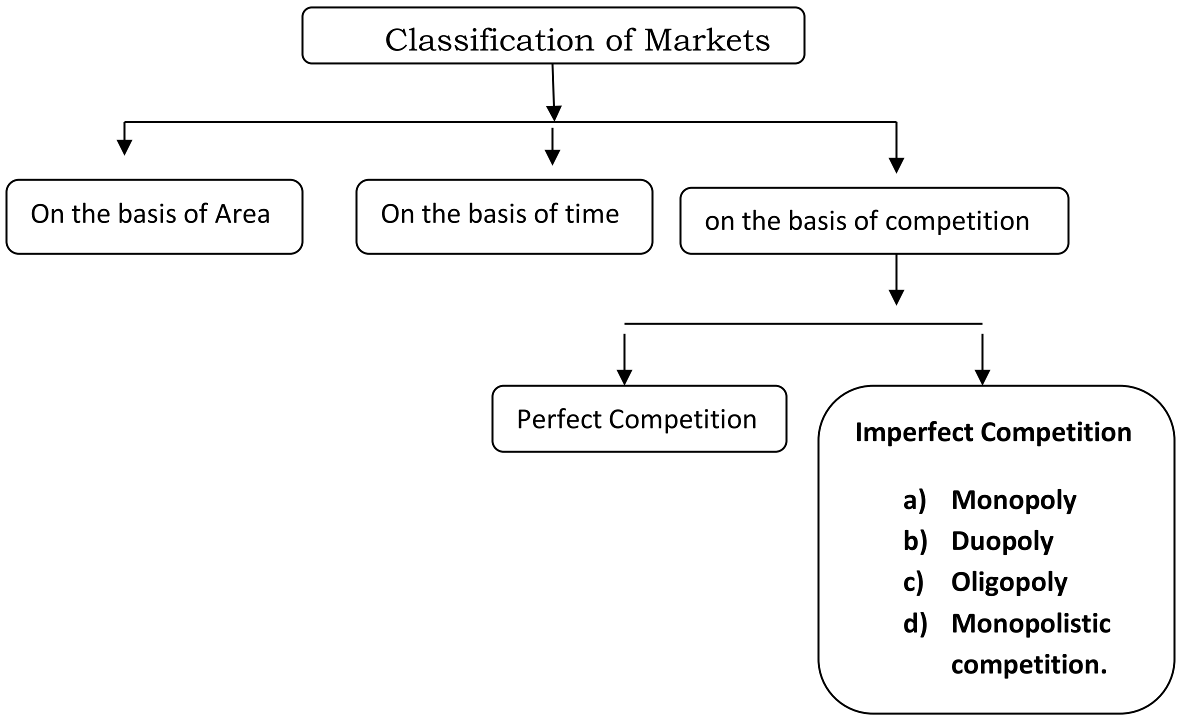
a) ***Local market***: When a market is located at particular area, such market is a local market.

b) ***National market***: Under this the marketing activities are carrying within the boundaries of a nation/ a country such markets are national market.

c) ***International market***: Where the marketing operations are carrying at an overseas level, those are international or overseas markets.

TYPES OF MARKETS

Markets can be classified as the following ways,



2**) On the basis of TIME:** Markets can be classified on the basis of time or period also, as follows,

a)***very short period market:*** *W*hen marketing activities are relating to the perishable goods is very short period market. Ex; bread, milk, etc,.

*b)**short period market**:* When the marketing activities are belonging to short period i.e. not exceeding 12 months is a short period market. Ex: Beverages (cool drinks)**.**

c) Long period market: The marketing relates to long period i.e. more than 12 months period as long period market. Ex: paddy, wheat, etc,.

3) **On the basis of competition:** Based on degree of competition, the markets can be divided into perfect and imperfect competition markets. In perfect markets, there is said to prevail perfect competition and in case of imperfect competition. Perfect competition is said to exist when certain conditions are fulfilled. Financial markets, agriculture products are some of sectors of economy where perfect competition can be observed.

a) **Perfect Market/ Perfect Competition**: A market structure in which all firms in an industry are price takers and in there is freedom of entry into and exit from the industry is called perfect competition. The market with perfect competition conditions is known as perfect market.

Features / Conditions of Perfect Market:

These are the assumption underlying perfect market.

- Large no. of buyers & Sellers: There should be significantly large no. of buyers and sellers in the market. The number should be so large that it should not may any difference in terms of price/quantity supplied even if one enters in the market or one leaves from the market.

- Homogeneous products/ services: The products and services of each seller should be homogeneous. the buyer does not have any particular preference to buy the goods from a particular trader/supplier. the price is one and the same in every firm. There are no concessions or discounts.

- Free entry /exit of the firm: There should not be any restrictions on the part of the buyers and sellers to enter to the market or leave from the market. There should not be any barriers. the buyers can enter the market or left from the market whenever they want.

- Perfect knowledge: Each buyer and seller has total knowledge of the prices prevailing in the market at every given point of time, quantity supplied, costs, demand, nature of the product and other relevant information.
- Perfect mobility of factors of production: There should not be any restrictions utilization of factors of production such as, land, labour, capital & technology and so on. whenever capital / labour is required, it should instantly be made available

- Each firm is price taker: An individual firm can alter its rate of production / sales without significantly affecting the market price of the product. a firm in a perfect market cannot influence the market through its own individual actions. it has no alternative other than selling its products at the price prevailing in the market. it cannot sell as much as it wants as its own set price.

Total Revenue(TR), Average Revenue(AR) & Marginal Revenue(MR)

Total Revenue (TR) is the revenue earned by producing and selling 'n' no .of units.

TR = P x O

Average Revenue (AR) is the revenue earned per unit sold.

AR = TR/no. of Units

so, AR = TR /Q

Where TR = P x Q.

Hence, AR = TR / Q = P x Q /Q = P.

Marginal Revenue MR refers to change in revenue by producing and selling one more unit.

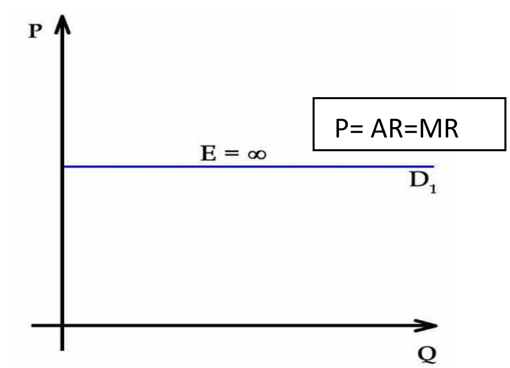
MR = AR= P

Ex: A co. selling note books @ 10Rs each. The co. not giving any discount or concession even if more no. of books are purchased at a time i.e. 10 books are sold. Price = 10 Rs. Quantity = 10, TR= PXQ = 10X10= 100, AR=TR/Q=100/10=10. Suppose the company is selling one more note book at the given price of 10Rs. The Marginal Revenue (MR) by selling one more unit will be 10Rs.

Thus under perfect competition, Price= AR=MR

Perfect competition: - The individual firm

The individual firm under the conditions of perfect competition as no control over the price. It is a passive price taken. In the other words, it has to accept the prices as given by the market. Market forces determine the price and the individual firm has absolutely no control over price determination. In case of agricultural products, such as rice, wheat, vegetables and so on. The individual farmer has no alternative other than accepting the given market price.



The demand curve for the (Product) output of individual firm is a horizontal line at a given market price. It is a perfectly elasticity demand.

Here, P=AR=MR.

A firm cannot change the market price even it sells the whole of its volume of production. When it tries to sell at a higher price nobody is likely to buy from it. There is no question of selling at lower prices as these will results losses only.

Perfect Competition - The Firm & Industry

The price of a product is determined by the demand and supply of the product. According to Marshall, the role of these two determinants is like that of a pair of scissors in cutting cloth. It is possible that at times, while one par is held fixed, the other is moving to cut the cloth. Similarly it is conceivable that there could be situations under which either demand or supply is playing a passive role, and the other, which is active, alone appear to be determining the price. However, just as one pair of scissors alone can never cut a cloth, demand or supply alone is insufficient to determine the price.

Equilibrium Price:

The price at which demand and supply of a commodity is equal known as equilibrium price. the demand supply schedules of a commodity are shown in the following table given below.

Price	Demand	Supply
10	300	50
20	200	110
30	150	150
40	120	180
50	100	200

the above table shows that where the price is Rs. 10 there would be excess demand i.e., 300 units for the commodity; similarly at the price Rs. 30 both demand and supply are equal and thus the producers and consumers both are satisfied . the economist call such a price as equilibrium price.

This also can be represented by the following chart:

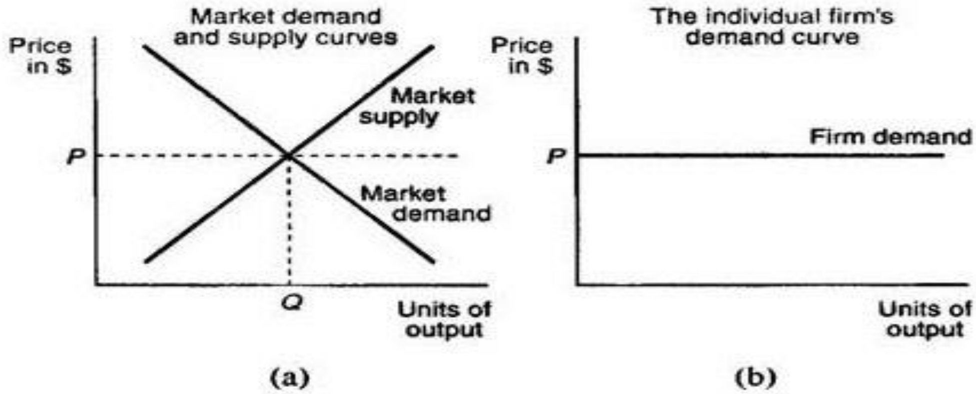
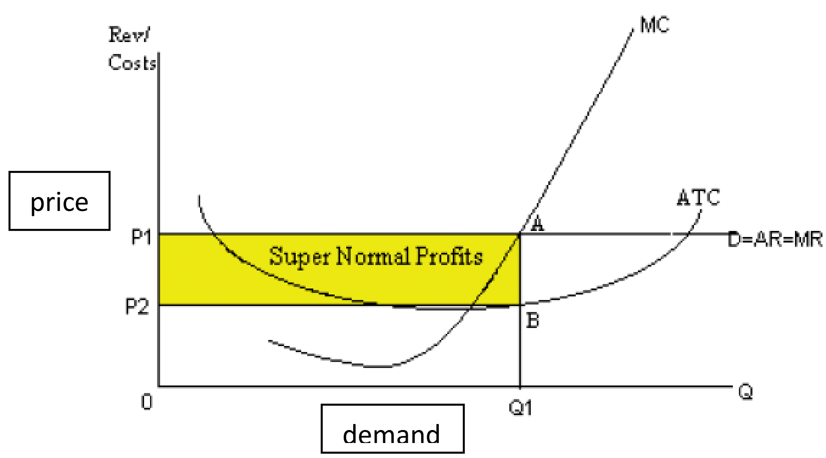


Figure 1 Market and firm demand curves in a perfectly competitive market

Price - Output determination in case of Perfect Competition:

Short run: The price and output of a firm are determined, under perfect competition, based on the industry price and its own costs. the industry price has greater say in this process because the firm's own sales are very small and insignificant. the process of price output determination in case of perfect competition is



The firm's demand curve is horizontal at the price determined in the industry MR =AR= Price. this demand curve is also known as average revenue curve. this is because the all units are sold at the same price, on an average the revenue to the firm equals to its price.

When the average revenue(AR) is constant it will coincide with the marginal revenue curve. Thus, P_1 D is the demand curve representing price, AR curve is also the marginal revenue curve. Average total Cost (ATC) and MC are the firms AC curves & MC curves.

The firm gets higher profits as long as the price, it receipts each unit exceeds the AC of production.

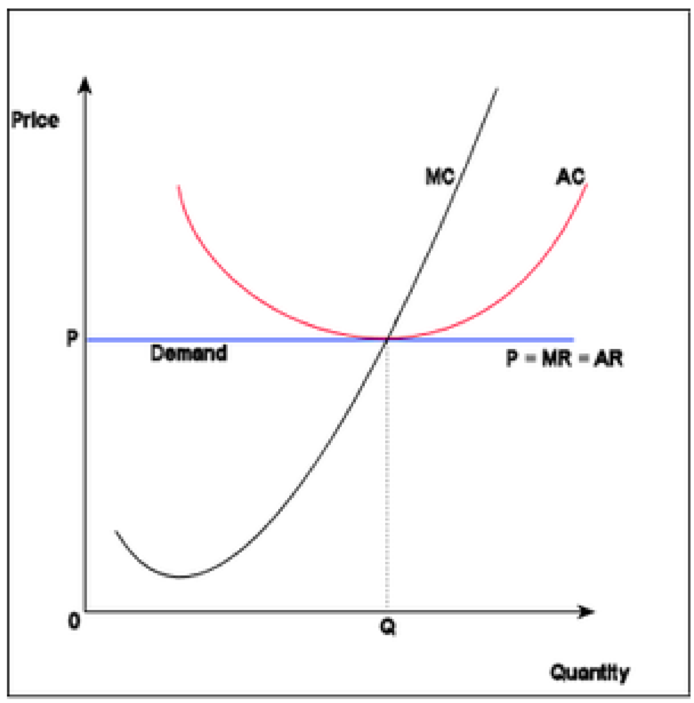
$OP_1 = AQ_1$ which is the price.
$OP_2 = BQ_1$ which is the average cost.
$OQ_1 = AP_1$ is equilibrium output.

Here, the area P_1P_2AB is the total profit which constitutes the super profits/ abnormal profits.

Long - Run:

Having been attracted by supernormal profits more and more firms can enter into the industry. With the result there will be scrambled scare inputs among the competiting firms pushing the input prices hence the AC increases.

All those firms that are not able to earn at least normal profits will leave the industry.



The entry of more and more firms will expand supply pulling down the market price. as a result the supernormal profits previously either to enjoy by the firms get decrease. The entry of the firms into the industry continuous till the abnormal profits are completely decreased. In the long run the firms will be in a position to enjoy only normal profits. These profits those are sufficient for the firms to stay in the business. It is to be noted that the normal profits are included in the normal cost curve.

In the above chart on X axis quantity output, on Y axis Price/cost are considered. Long Run Marginal Cost curve passes through the minimum point of the long run Average Cost curve at point E. That E is the equilibrium point and the firm produces OQ units of output. It can be noted that normal Profits are not visible to the naked eye since normal profits are included in the Average Cost(AC).If the market price is below long run average cost of the firm, the firm will quit the industry since in the long run, the firms have to recover average costs.

MONOPOLY

The word monopoly is made up of two syllabuses**.** Mono means single, while poly implies selling. Thus monopoly is a form of market organization in which there is only one seller of the commodity. There are no close substitutes for the commodity sold by the seller. Pure monopoly is a market situation in which a single firm sells a product for which there is no good substitutes.

Monopoly is the quite opposite to perfect competition under monopoly there will be only one producer or selling. There is no competition for him. There is no close substitute for his product. He controls the whole supply of the product.

Under monopoly there is no distinct b/n firm and the industry, since both the firm and industry is same.

Features of monopoly;

- *Single person or firm*: A single person or a firm controls the total supply of the commodity. There will be no competition for monopoly firm. The monopolist firm is the only firm in the whole industry.

- *No close substitutes*: The goods sold by the monopolist shall not have closely competition substitutes. Even if price of monopoly product increase people will not go in far substitute. For ex; If the price of electric bulb increase slightly consumer will not go for kerosene lamp.

- *Large no. Of buyers;* Under monopoly, there may be a large no. Of buyers in the market who compete among themselves.

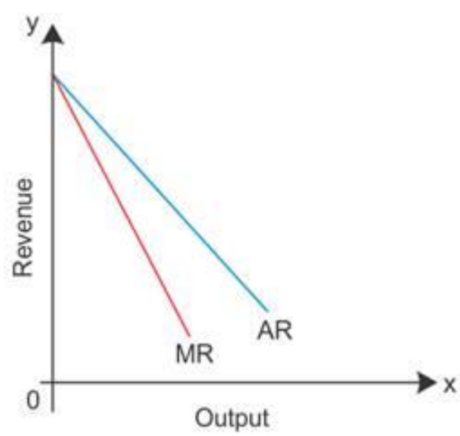
- *Price maker;* Since monopolist controls the whole supply of a commodity, he is a price -maker and then he can alter the price.
- *Supply and price;* The monopolist can fix either the supply or the price. He cannot fix both. If he charges a very high price, he can sell a small amount. If he wants to sell more, he has to change a low price.

- *Downward sloping demand curve;* The demand curve of monopolist slopes downward from left to right. It means that he can sell more onlyby lowering price.

Incase of monopoly, the marginal revenue (MR) is always less than the Average Revenue (AR) because of quantitative discounts or concessions.

For example; a note book priced at Rs. 10/- to improve sales you have a scheme. If one buys 10 note books together, you offer 10% of discount. In other words the price of 10 books is 90. The average revenue in this case is Rs. 9/-. If the firm wants to sell more books they may change the scheme i.e., if purchase 20 books together the buyer got 15 % discount. The total revenue becomes 170/- (200- 30). The average revenue is (TR/Q) Rs. 8.50/-.if buyer wants to buy 21 books he may eligible for another concession i.e., 20% discount. Then the marginal revenue becomes Rs. 8/-.

Thus in case of monopoly, marginal revenue is always less than the average revenue [MR < AR].



Causes of Monopoly:

There are several factors to lead a firm into monopoly;

- *Government Policies & Legal Provisions* – by an act of legislation often create and maintain monopoly. Ex: Indian Railways.

- *Mergers & Acquisitions* – enables the business organizations to emerge stronger with higher market share. Ex: Standard chartered bank has acquired ANZ Grindlays Bank and emerged much stronger and bigger, leading to enlargement of economies of scale, cost advantages, and elimination of competition.

- *Through Research & Development And Latest Technology* – the firm can replace its old products with superior ones. Ex: Hewlett & Packard emerged stronger with their laser printers fast replacing the dot matrix printers.

- *Control over key inputs* – such as Raw materials, skilled labour, technology, financial resources and so on.

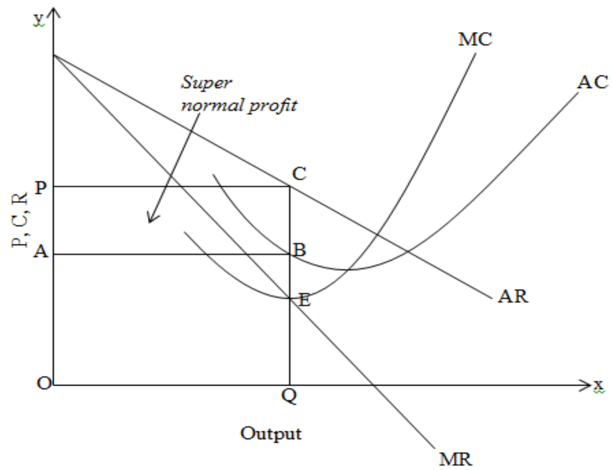
- *Intellectual Properties* – i.e., patents, copy rights, trademarks etc.,

PRICE - OUTPUT DETERMINATION IN MONOPOLY

Under Monopoly, the average revenue curve for a firm is downward sloping one. It is because, if the Monopolist reduces the price of his product, the quantity demanded increases and vice - versa. In Monopoly, MR is less than the AR. In other words, the MR lies below the AR curve.

The Monopolist always wants to maximize his profits. To achieve maximum profits, it is necessary that the MR should be more than the Marginal cost (MC).

He can continue to sell as long as the marginal revenue exceeds marginal cost. At the point E, where MR = MC, profits will be maximized. Profits will diminish if the production is continued beyond this point.



From the figure, it can be seen that the demand curve of average revenue curve is represented by AR, Marginal revenue curve is represented by MR, Average cost by AC, Marginal cost by MC. OQ is the equilibrium output, OP is the equilibrium price, QB is the average cost, CB is the average profit (AR-AC). Up to OQ point MR >MC, beyond OQ, MR<MC. Therefore the monopolist will be in equilibrium at output OQ where MR=MC and profits are maximum. OP is the corresponding price to the output level of OQ. The rectangle PABC represents the profits earned by the monopolist in the equilibrium position in the short-run.

PRICE DISCRIMINATION:

Price discrimination is a selling strategy that charges customers different prices for the same product or service based on what the seller thinks they can get the customer to agree to. In pure price discrimination, the seller charges each customer the maximum price he or she will pay. In more common forms of price discrimination, the seller places customers in groups based on certain attributes and charges each group a different price.

Price discrimination is most valuable when the profit that is earned as a result of separating the markets is greater than the profit that is earned as a result of keeping the markets combined. Whether price discrimination works and for how long the various groups are willing to pay different prices for the same product depends on the relative elasticities of demand in the sub-markets.

Types of Price Discrimination:

There are three types of price discrimination: first-degree or perfect price discrimination, second-degree, and third-degree. These degrees of price discrimination are also known as personalized pricing (1st-degree pricing), product versioning or menu pricing (2nd-degree pricing), and group pricing (3rd-degree pricing).

First-degree Price Discrimination:

First-degree discrimination, or perfect price discrimination, occurs when a business charges the maximum possible price for each unit consumed. Because prices vary among units, the firm captures all available consumer surpluses for itself, or the economic surplus. Many industries involving client services practice first-degree price discrimination, where a company charges a different price for every good or service sold.

Second-degree Price Discrimination:

Second-degree price discrimination occurs when a company charges a different price for different quantities consumed, such as quantity discounts on bulk purchases.

Third-degree Price Discrimination:

Third-degree price discrimination occurs when a company charges a different price to different consumer groups. For example, a theater may divide moviegoers into seniors, adults, and children, each paying a different price when seeing the same movie. This discrimination is the most common.

Examples of Price Discrimination

Many industries, such as the airline industry, the arts and entertainment industry, and the pharmaceutical industry, use price discrimination strategies. Examples of price discrimination include issuing coupons, applying specific discounts (e.g., age discounts), and creating loyalty programs. One example of price discrimination can be seen in the airline industry. Consumers buying airline tickets several months in advance typically pay less than consumers purchasing at the last minute. When demand for a particular flight is high, airlines raise ticket prices in response.

By contrast, when tickets for a flight are not selling well, the airline reduces the cost of available tickets to try to generate sales. Because many passengers prefer flying home late on Sunday, those flights tend to be more expensive than flights leaving early Sunday morning. Airline passengers typically pay more for additional legroom too.

MONOPOLISTIC COMPETITION

Monopolistic competition is said to exist when there are many firms and each one produces such goods and services that are close substitutes to each other. They are similar but not identical.

There are no restrictions on the entry and with the result, many firms who feel they can offer a relatively better product or service, enter the market.

The market share of each firm in the monopolistic competition is so insignificant that activates of one firm have no effect on others. The firms here, operates relatively on small scale they can take advantage of economies of scale but not to any significant degree.

The number firms are so large that there is no possibility of collusion to restrict output or raise price. Each one acts independently each firm plans strategically it's pricing and output and least worried about how its competitors are likely to react.

Product Differentiation:

Product differentiation (or simply differentiation) is the process of distinguishing a product or service from others, to make it more attractive to a particular target market. This involves differentiating it from competitors' products as well as a firm's own products. Products can be differentiated by means of unique facilities, advertising, brand loyalty, packaging, terms of credit, superior maintenance service, and convenient location and so on. Example: Pepsi & coke.

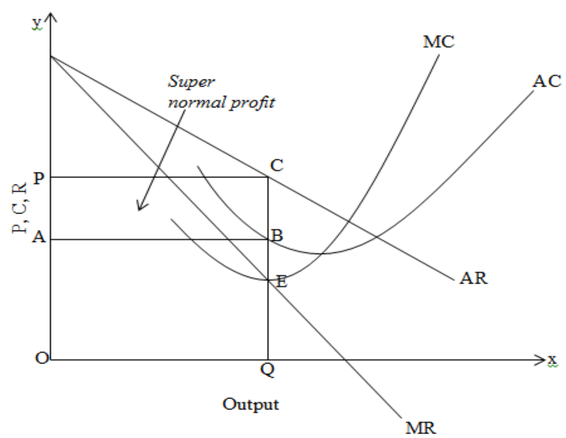
Price - Output Determination under Monopolistic Competition

It is common to every firm whether operating under perfect market or imperfect market, wants to maximize the profits. It means that the firm under monopolistic competition also will reach equilibrium when its marginal cost equals its marginal revenue (MC=MR). The demand curve for the firm in case of monopolistic competition is just similar to that of monopolist.

As the products are differentiated, the demand curve has a downward slope. In other words, each firm has a limited control over price. These firms are price makers of as far as a given group of customers are concerned. The demand for their products and services is relatively inelastic. The degree of elasticity of demand of a firm in monopolistic competition depends upon the extent to which the firm can resort to product differentiation. The greater the ability of the firm to differentiate the product, the less elastic the demand is the firms influence to increase the price depends upon the extent to which it can differentiate the product. At lower prices the firm can sell more. There is no significant variation in the cost functions also.

SHORT – RUN:

In the short – run, the firms may experience super normal or normal profits or even losses. When there is a fall in costs or increase in demand. The firms may enjoy supernormal profits. In other words, if the firm satisfies the following two conditions, it may make super normal profits:



a) Where Marginal Cost is equal to Marginal Revenue(MC=MR)
b) Where Average Revenue is less than Average Cost (AR<AC).

The firm may be in losses when the cost rise or demand decreases.

The above figure reveals that the demand curve is downward sloping curve because of product differentiation. The cost functions of the firm are not different from those of earlier market situations, at E, MC is equal to MR, extend E from point C on AR curve and point Q on X-axis.

OQ is the equilibrium output OP = QC = equilibrium price and QB is the AC.

Average Profit = AR – AC.
CB is the Average Profit.
Profit X Quantity = total Profit.

The area PABC represents the super normal profits earned by a firm under monopolistic competition in the short-run.

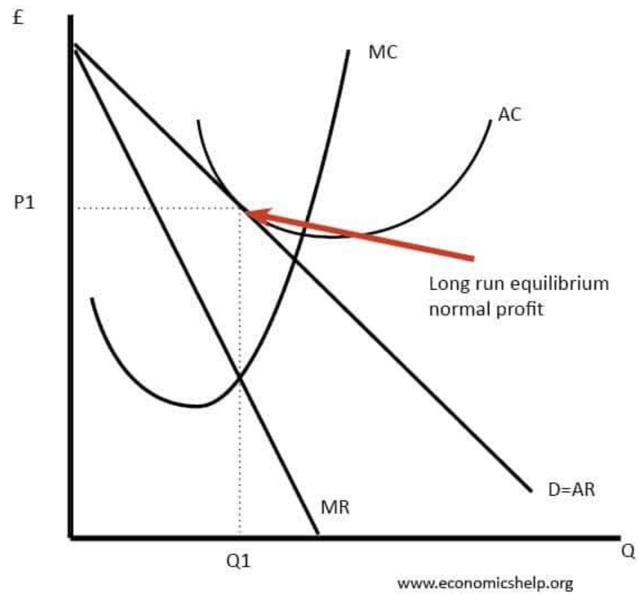
LONG – RUN:

More and more firms will be entering the market having been attracted by supernormal profits enjoyed by the existing firms in the industry. As a result, competition becomes intensive on one hand; firms will compete with one another for acquiring scarce inputs pushing up the prices of factor inputs. On the other hand, on the entry of several firms the supply in the market will increase, pulling down the selling price of the products. In order to cope with the competition, the firms will have to increase the budget on advertising. The entry of the new firms continue till the supernormal profits of the firms completely get eroded and ultimately firms in the industry will earn only normal profits. Those firms which are not able to earn at least normal profits will get closed. Thus in the long-run every firm in the monopolistic competitive industry will earn only normal profits, which are just sufficient to stay in the business. It is to be noted that normal profits are part of average costs.

In the long-run, in order to achieve equilibrium position, the firm has to fulfill the following two conditions:

i) MR = MC ii) AR= AC at the equilibrium level of output.

Thus the firm has to fulfill dual equilibrium conditions as mentioned above. But when compared to long-run equilibrium position of a perfectly competitive firm, even though AR=AC. AC will not be at its minimum point at equilibrium level of output. And also, MR is not equal to either AR or AC; MR is well below AR in the case of monopolistic competitive firm.



OLIGOPOLY

An oligopoly is a market form wherein a market or industry is dominated by a small group of large sellers. Oligopoly was defined as that form of market organization where there are a few sellers of a homogenous (homogenous or pure oligopoly) or differentiated product (Differentiated oligopoly). It is the most prevalent form of market situation in the real world. Oligopoly markets prevail both in developed and developing countries.

Ex: Steel, Oil, Soda Ash, Automobiles, Bulk Drugs and Chemicals, Aircraft Manufactures and Toothpaste Etc.

Oligopoly happens when the first four firms in an industry share a significant size of the market (i.e., over 50% of the total market). For example, there may be 50 firms in the industry, but four firms have captured 70% market share in the market, and remaining 46 firms have only 30% of market share in the oligopoly industry.

Oligopoly and Monopolistic competition are the two kinds of markets that are found in the real world. According to several American economists, it is the concentration ratios among the first four firms in the industry that determine whether it is an oligopoly or not.

Characteristics/ Features of Oligopoly:

a) Only a few sellers: The no. of sellers in the oligopoly industry is only a few. The number is so less that each seller is visible in the oligopoly market, in the sense that he controls a significant size of the market. Each seller is able to closely watch the activities of the other sellers.

b) Inter – disciplinary: The behaviour of oligopoly firms in the industry resembles the game of chess and oligopoly firms are like chess players. Each firm closely watches the move of the other firms and reacts carefully to their moves. The firm may frequently anticipate the moves of the rival and act accordingly. Each firm in oligopoly industry is interdependent and not independent, of the actions of the firms, whether it is a decision on price or pertaining to advertising on any other.

c) Price rigidity: Generally, prices are once established in an oligopoly industry; remain relatively stable unlike in the case of perfect competition. Prices are more or less rigid and a firm in oligopoly may change the price upward or downward only under compelling circumstances – that too either asa price follower or price leader.

d) Price Leadership: One of the firms in the industry has highest market share and therefore, is called dominant price leader. When demand and cost considerations compel a firm to take decision regarding price change, the dominant firm may act as a price leader and may change the price after careful thought. The other firms may follow low suit.

e) Advertising & Selling Cost: Firms in an oligopoly market, like in monopolistic competition, incur heavy expenditure on advertising and other promotional activities. Advertising is one way by which existing firms try to prevent the entry of new firms. Advertising serves the purpose of creating a barrier to entry. Heavy Advertising establishes a strong brand image for the existing firms. Stars and superstars aand internationally renowed sports personalities are involved in endorsing their products and receive handsome amounts for their services. Such Advertising increases the total cost of the product and it will be difficult for the new entrant to enter the market.

f) Brand proliferations: Oligopoly firms can earn profits in the long run when they create entry barriers. Apart from the advertising, creation of brand proliferation to its rivals. By altering the characteristics of a differentiated product, it is quite possible to produce and bring into the market a wide variety of models.

Ex: several models of automobiles are brought into the market – automobiles with a little more or less fuel efficiency, acceleration, small and compact size, big and joint family size and so on. Of course, a variety of existing brands are partly in response to consumer tastes but partly also to create entry barriers and mainly to make life difficult for rival firms. Price competition is easy to imitate but non-price competition such as brand proliferation is difficult to imitate.

g) Non – price Competition: Because price competition is easy to imitate and leads to price wars, oligopoly firms indulge in non-price competition. Apart from the advertising and brand proliferation, oligopoly firms may introduce excellent after - sales service that is essential for creating confidence in th minds of customers especially in the case of consumer durables. Excellent after-sales service goes a long way in building goodwill and in enhancing sales. Courteous salesmen and excellent after – sales service enhance the prestige of the company and improves vastly its sales. These things are not easy to imitate.

h) Innovations: Oligopoly firms continuously innovate and improve the quality of the product, reduce the costs of production and management, improve the brand image, customer –care, etc. and try to have an edge over the rival firms in all these aspects.

i) Collusion: because of price cuts may lead to price wars resulting in mutual destruction, oligopoly firms may have a tacit collusion to fix price and quotas for each of them. Formal collusions are called cartels or syndicates and they are declared illegal in many countries. Oligopoly firms may have informal agreements regarding price and quotas and these informal agreements are difficult to detect. These firms may maintain prices at a higher level by curtailing output through quota system, i.e., each firm is given a quota of output and it should not produce beyond that quota.

j) Indeterminate demand curve: unlike perfect competition or monopoly or monopolistic competition it is difficult, may impossible to determine equilibrium price and output under oligopoly because demand is indeterminate. Unlike in perfect competition and monopoly, oligopoly firms are mutually dependent. The action of a firm on price cut depends upon the actions of the anticipated decisions of the rival firms. Because of the interdependence he demand curve constantly changes and it si difficult to determine with certainty the shape of the demand curve of an oligopoly firms.

k) Conflicting attitudes of firms in an Oligopoly industry: Oligopoly firms face a dilemma whether to cooperate or compete. If they cooperate they can maintain profits at a high level. They may have formal agreements, allowed by law, or informal agreements regarding fixing of prices and quotas. When the going is good, firms tend to cooperate and do not indulge in price competition, but when the firms face adverse demand conditions and when the going bad, each firm may try to have secrete deals with customers. One firm may give price discounts stealthily in order to maintain sales volume and other firms may also indulge in price cuts when they get to know of it.
Ex: (OPEC) Oil and Petroleum Exporting Corporation

Kinked Demand Curve:

Many economists observed that prices in an oligopoly industry are surprisingly stable or rigid. They pondered over this phenomenon and tried to explain it. **PAUL SWEEZY** explained very convincingly the reasons for price rigidity in an oligopoly industry through his 'KINKED DEMAND CURVE MODEL". Sweezy model became very popular.

The model is based on two assumptions:

a) If an oligopoly firm increases price, its rivals will not increase the price because they believe that they can gain more customers by keeping status quo, especially, the customers of the firm which has increased the price.
b) If an oligopoly firm reduces the price with an intention of increasing the volume of its sales, other rival firms also fellow suit to that their customers will not be lost to the rival firm, which has resorted to the price cut.

The demand curve of oligopoly firm will slope downwards. It actually consists of two points – below the kink and above the kink.

The firm somehow fixes the price originally and once the price is fixed. It remains stable or rigid or sticks at that level. The upper part of the demand curve is relatively elastic indicating the any small increase in price will results in more than a proportionate fall in the sales revenue.

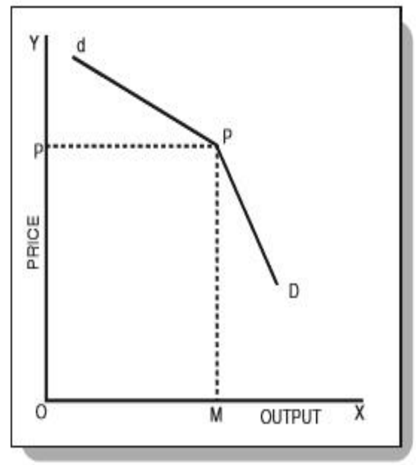
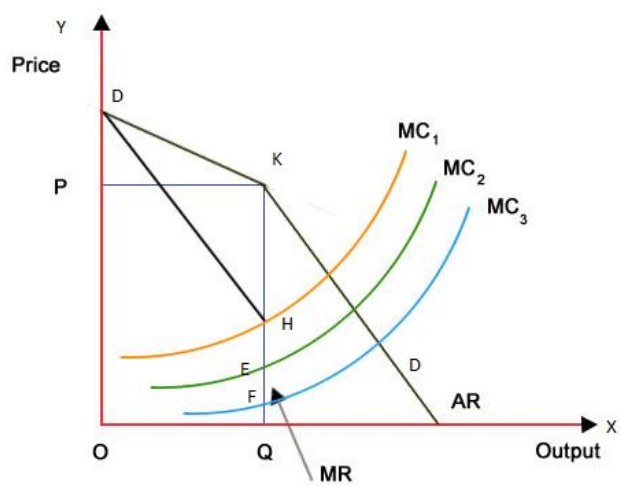


Fig. 1 : Kinked Demand Curve under oligopoly

A firm is afraid of increasing the price because its rivals will not increase their prices and their products will be relatively cheap. Many of its customers may leave it for the products of the rivals. The firm will lose sales and its sales revenue may decline. For the fear of losing its customers, the firm will not dare to increase the price.

Under normal circumstances, if it cuts the price, the volume of the sales will increase and also the sales revenue. But the firm may be reluctant to cut the price because it is afraid that the rival firms also the same in which case, there will not be any increase in the volume of sales. The volume of sales may stay at the same level or even fall, if the rival firms cut the price by a greater percentage. Thus, the oligopoly firm does not like to change the price. It neither likes to increase nor cut its price nor tries to maintain it at the same level. It rather indulges in non – price competition which is difficult for rival firms to intimate.



Output or sales is measured on the x-axis, price is measured on the y-axis. DKD is the kinked demand curve. OP is the price, which was originally fixed. OQ is the output or sales. The equilibrium price and output remain stable at the kink **'K'** on the demand curve. The price has neither increased above the kink nor decreased below the kink. It is to be noted the 'kinked demand curve' model explain why prices are rigid or sticky in the oligopoly industry. It will not explain how price is originally determined.

The above figure shows the average revenue curve, the marginal revenue curve in an oligopoly.

The marginal revenue curve will be a discontinuous one because of the kink in the AR curve. The length of the discontinuity of the MR depends up the relative elasticity's of the two parts or segments of the kinked demand curve. The greater difference in the elasticity of the two segments, the greater the length of the discontinuity.

If the marginal cost curve of the oligopoly firm passes anywhere through the discontinuous portion of the marginal revenue curve, the oligopoly firm will maximize profits at the prevailing price level, OP. Thus, the frim will be in equilibrium either at point E or F or H where MR is equal to MC. Thus, even when there are changes in the costs there is no change in the price level. As long as the MC curves passes above or below the discontinuous portion of the MR curve, is the price likely to change.

The 'Kinked Demand Theory' also explains that even when the demand conditions change, the price level remains same stable. Only when there are drastic changes in the demand and cost conditions, the price may change in the case of oligopoly.

PRICING THEORIES

Price refers to the exchange value in terms of money of product and services which provide a bundle of satisfaction to the consumer.

Price denotes two aspects. one way is the revenue for seller, Perceived value of the good to the customer. In other words, price is determined as, the value of a goods in terms of utility of customers. it determines sales revenue, market share and profits.

Acc. to ***K.C. Kite***, "*Price is a managerial task that involves establishing* ***pricing*** *objectives, identifying the factors governing the price, ascertaining their relevance and significance, determining the product value in monetary terms and formulation of price policies and the strategies, implementing them and controlling them for the best results*".

Pricing decisions are equally important for a new product and an existing product, for entering a new market or new market segment and are affected by host of factors like;

- objectives of the firm,
- cost of production
- market structure
- competitors' strategy
- elasticity of demand &
- Government policy.

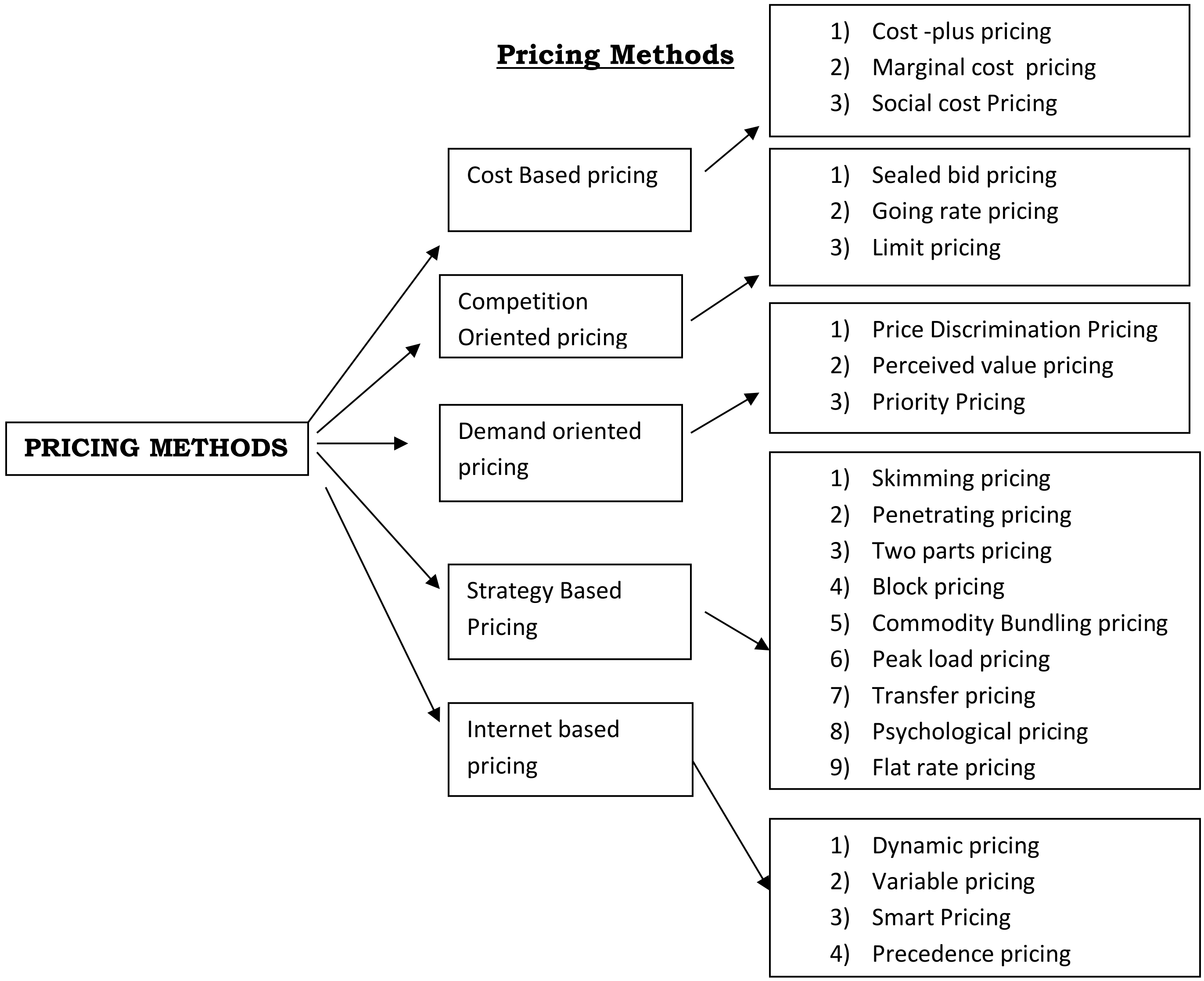
Cost based pricing:
Under this method, price is fixed based on some assumptions;

- Using the cost of production as the basis for pricing a product.
- Here the selling price of product a will be the cost to produce it.
- It includes:- Direct and indirect costs & Additional amount to generate profit.

1) **Cost Plus Pricing**, the selling price of the product is fixed by adding a particular margin or mark up to its cost.

   Here, the AC at normal capacity of output is ascertained and a conventional margin of profit is added to the cost to arrive at the price. In other words, find out a products unit total cost and add a percentage of profit to arrive at the selling price. It is also known as **Mark-Up Pricing /Full Cost Pricing.**

Pricing Methods



2) Marginal cost pricing: under this method, selling price is fixed in such a way that it covers fully the variable or marginal cost and contributes towards the recovery of fixed costs fully or partly, depending upon the market situation. in times of stiff competition, MC offers a guidelines as to how far the selling price can be lowered.

3) Social cost based pricing: charging based on social cost is a system of charging extra for the users of a transport network during peak hours to reduce traffic congestion. the highway users are charged relatively higher toll charges during the peak hours. the purpose of this charging to regulate the demand during peak hours, so that the congestion is managed without increasing supply.

Competition Oriented Pricing: It is. a method of pricing in which a manufacturer's price is determined more by the price of a similar product sold by a powerful competitor than by considerations of consumer demand and cost of production; also referred to as Competition-Based Pricing.

1) **Sealed bid pricing:** this method is so popular in tenders and contracts. each contracting firm quotes its price in a sealed cover called 'tender'. all tenders are opened on a scheduled date and the person who quoted the lowest price, other thing remains same is awarded the contract.

2) **Going rate pricing**: Here, the price charged by the firm is in tune with the price charged in the industry as a whole. Ex: gold.

3) **Limit Pricing**: A limit price is the price set be a monopolist with a view to discourage other form entering into the market. The limit price is often lower than the average cost at production or just lows enough to make entering not profitable.

Demand oriented pricing: Demand-based pricing, also known as customer-based pricing, is any pricing method that uses consumer demand – based on perceived value – as the central element.

1) **Price Discrimination** : Price discrimination involves charging a different price to different groups of people for the same good. For example – student discounts, off peak fares cheaper than peak fares. It is also called differential pricing.

2) **Perceived value pricing**: perceived value is that value which customers are willing to pay for a particular product or service based on their perception about the product. Perceived value pricing is not based on the cost of the product, but it is the value which the customer thinks that he/she is deriving from consuming a product or a service.

3) **Priority Pricing:** It is more visible in security trading. in securities trading, the first bid/offer price is executed before the next bid or offer price. the sequence of receipt of bids is the basis for execution of the transactions.

Strategy Based pricing: A pricing strategy takes into account segments, ability to pay, market conditions, competitor actions, trade margins and input costs, amongst others. It is targeted at the defined customers and against competitors.

1) **Skimming Pricing:** when a product is introduced for the first time in the market, the company fixes a very high price for it. the main idea is to charge the customer the maximum possible. this strategy is mostly found in the case of technology products.

2) **Penetrating Pricing**: this is exactly reverse of the market skimming method. the price of the product is fixed so low that the company can increase its market share.

3) **Two Part Pricing**: firms with market power can enhance them profits by the two part pricing strategy. under this strategy, a firm charges a fixed fee for the right to purchase its goods, plus a per unit charge for each unit purchased. For example, entertainment houses such as country club, athletic clubs, golf courses and health clubs.

4) **Block Pricing**: it is another way a firm with market power can enhance its profits. ex: six lux soaps in a single pack or 5 Maggie noodles packets in a single pack.

5) **Commodity Bundling**: refers to the practice of bundling two or more different products together and selling them at a single bundle price.

6) **Peak-Load Pricing**: During the season when demand is likely to be higher, a firm may enhance profits by peak- load pricing. the firm's philosophy is to charge higher price during peak times than is charged during the off-season.

7) **Transfer pricing**: it is an internal pricing technique. it refers to a price at which inputs of one department are transfer to another department in order to maximize overall profits of the company.

8) **Psychological pricing**: offering products or services at a price such as Rs. 49 to Rs. 499 is popularly called as psychological pricing. ex: Bata co. products.
9) **Flat rate pricing**: where the price is charged at a flat rate or single fixed rate for a particular product or service irrespective of the usage, flat rate

pricing is said to exist. Ex: internet services providers use this type of pricing.

10) **Transaction Based Pricing**: TBP model that allows acquiring enterprise - wide case management solution including all the services require in terms of support, maintenances, version upgrades and training at one go. Normally all these mean a large capital expenditure Ex: annual maintenance of refrigerator.

Internet Pricing Methods: Internet pricing models brought price transparency in the markets and this has been great boon for the customers and it has been bad really for the businessmen.

1) **Dynamic Pricing**: it is extensively visible in stock exchanges and commodity markets. It is used for matching supply and foreign currency or even in commodity markets. Where demand and supply fluctuate on a second - by - second, dynamic pricing models comes handy.

2) **Variable pricing**: it is extensively visible in consumer segment. It aims to generate incremental sales and revenues by varying the price of an item. Particularly where the customer is not willing to pay the current price for the product, the seller offers a steep price discount and motivates. The buyer to go for trail use.

3) **Smart Pricing**: It is the latest methods of pricing which adds more value for the users. As part of smart pricing. Automatic price adjustments are introduced for certain clicks obtained from Google network. Google is smart pricing model offers better placement for better performing ads, and reduced the cost of a click to the least amount possible to stay above the competitors Ad

The concept of theories of firm explains why the firms grow or can't grow, what are the reasons behind the firms grow an cannot grow.

The firm growth is mainly depends upon the size of the firm regarding production i.e, what they can produce or cannot produce.

Managerial theories of the firm states how the manager has to seek to maximize their own utility such as salary's perks, security, power prestige etc and it also tells that the manager's do not always work to maximize the profits.

Another important concept where managerial theories of the firm depend is “**Principal - Agent**" Analysis. Principal here is shareholders of a firm, agent is manager or suppliers. The principal shouldn't interfere in agent behavior. Because agent is more clever than the principal sometimes. Agent will have a close relation with the customers so he knows better.

Managerial theories of the firm were given by Robin Marris and Oliver E Williamson which is popularly known as;

A. Williamson's Approach or models
B. Marris Growth Maximization Theory.

Williamson's Model

In general most of the entrepreneur's feel that "small is beautiful" i.e., they do not won’t to run big business or they don't like to expand the business. They feel that expanding the firm up to a particular point will be feasible and beyond it is not. They are very passionate about spreading their business activities across the boundaries and get the work done through competent workforce at different levels of management.

Williamson told that, for the firm to exist for long time it has to depend on certain assets for production. the assets are such that their specific to each other.

The value of the asset is very less in a second best use. if the asset is used for a long period then it may cause / lead to increase the transaction cost.

Depending upon the market conditions, the users of the asset may propose to overcome the continuous conflict of interest. One can't take chance about the firm's reputation particularly if the dealings the agents end up in violation of code of business ethics.

Marris Growth Maximization Theory

Acc. to Marris the growth rate of the firm depends on two terms. i.e.,

- Growth of demand (G_D)
- Growth of Capital Supply (G_C)

These two growth rates are translated into two utility functions they are;

- ✓ Utility functions for managers (U_m) - inputs.
- ✓ Utility functions for owners (U_O)- output.

Um = f{S,P, JS, P,S}

Where,	JS = Job security,
S= salary	P =Prestige
P = Power	S = Status.

Uo = f{ O, C, Msh , P, PE)

Where,	Msh = Market share
O= Output	P = Profit
C= Capital	PE = Public Esteem.

The **Utility of Managers** (U_M) is governed by salary, power, job security, prestige and status associated with their respective jobs. They want to show to the owners that they have added value at different stages of production or rendering the services and ultimately increased the revenue.

The **Utility for the Owners** (U_O) is determined by the output, capital introduced, market share, profit and public esteem. In other words, they are interested to know whether their investments and value of the firm have multiplied or not.

The U_M and U_O are positively correlated with size of the firm, i.e, as the firm's size increases, the U_M and U_O also will increase and vice versa. Therefore, managers seek to maximize the size of the firm which is in turn depends on maximization of its growth of its growth rte. Marris states that the managers seek to maximize a steady growth rate.

This theory fails to deal satisfactorily with oligopolistic interdependence and also ignores issues relating ot price determination. There could be several constraints also in terms of managerial and financial issues. The firm may face the problem of shortage of competent managerial workforce. In the absence of qualified finance experts, balancing liquidity, solvency and profitability issues could be a major constraint.

In general, most of the entrepreneurs find small is beautiful and feel expanding the size of the firm up to a particular point may be feasible and beyond that it is not. There are also entrepreneurs consider they cannot really do big business if the size of the business is kept limited. They are very passionate about spreading their business activities across the boundaries and get the work done through component workforce at different level of the management. Here, it is not easy to say which approach is right. The deciding factor in all the cases is the competence of the entrepreneur and his ability to translate the vision into action.