Module 3

Market Structures

MARKET

The word 'Market' is generally understood to mean a particular place or locality where goods are sold and purchased. A Market may be defined as the group of buyers and sellers dealing in a particular commodity in the particular place.

There are different types of market structures in an economy. It depends on nature of competition, types of a product, number of buyers and sellers etc. based on these markets are generally classified into two categories:

1. **Competitive Markets**
2. **Imperfect Markets**

In an Economy markets classified into four forms:

1. **Perfect Competition Market**
2. **Monopoly**
3. **Monopolistic Competition**
4. **Oligopoly**

1. Perfect Competition Market

Perfect competition may be defined as a market situation in which there are large number of buyers and sellers with perfect knowledge and close contact, dealing in identical commodity without price discrimination.

Features or Characteristics

1. **Large No of buyers and sellers:** The number of buyers and sellers is so large that the act of a single seller or buyer cannot influence the price or output in the market.
2. **Homogenous Product:** under perfect competition all sellers selling an identical product which is same appearance, colour, quality etc.

3. **Uniform market price**: under perfect competition all products charge the same prices.
4. **Freedom of entry and exit:** there are no restrictions on the entry and exit of firms. Thus there is open competition. It ensures normal profit in the market.
5. **Perfect Knowledge:** buyers and sellers have perfect knowledge about market conditions. Buyers know about price and product.
6. **No Transport cost:** it is assumed that transport cost is absent in perfect competition.

Under Perfect Competition all firms are "**Price Takers".**

Equilibrium of a firm

Under any market situation a firm is in equilibrium when it gets maximum profit. There are two approaches to find the profit maximizing level of output.

1. TC and TR approach

2. MC and MR approach

TC and TR Approach

Under this approach a firm will be in equilibrium when it produces the level of output where the difference between TR and TC (Profit) is the maximum.

MC and MR Approach

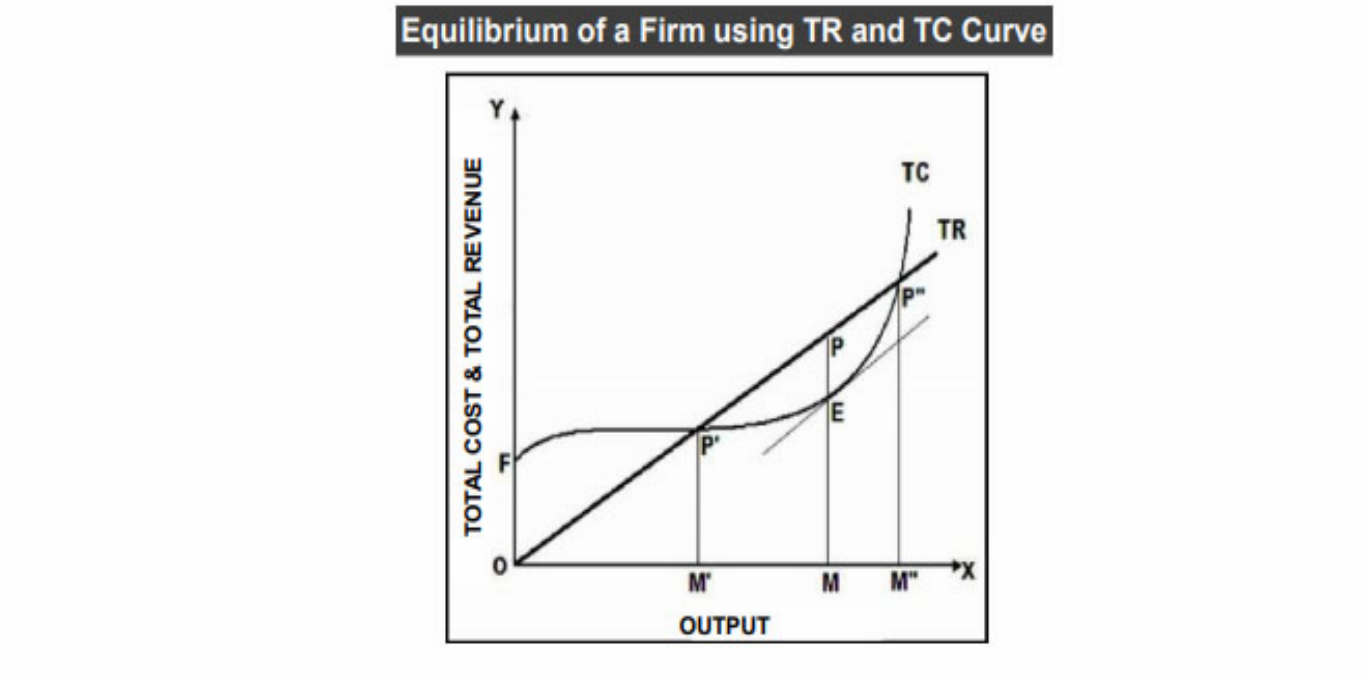
Under this approach profit will be maximum when the following two conditions are satisfied:

1. Marginal Cost is equal to Marginal Revenue
2. MC curve cut the MR curve from below

Equilibrium or Profit maximization of a firm under Perfect Competition

1. TR and TC Approach

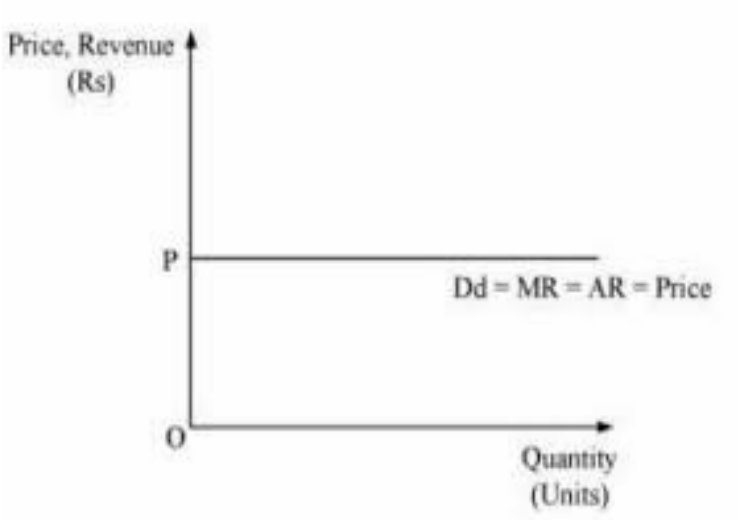
Under this approach a firm will be in equilibrium when it produces the level of output where the difference between TR and TC (Profit) is the maximum. Even if one more unit of output is produced, then the profit falls. In other words, the marginal cost becomes higher than the marginal revenue if one more unit is produced.



In the figure above, the X-axis shows the levels of output and Y-axis shows total costs and total revenues. TC is the Total Cost Curve and TR is the Total Revenue Curve. Also, P is the equilibrium point where the distance between TR and TC is maximum. Further, you can see that before the point P' and after the point P", TC>TR. Therefore, the producer must produce between P'P" or M'M". At the point P, a tangent drawn to TC is parallel to TR. In other words, at point P, the slope of TC is equal to the slope of TR. This equality is not achieved at any other point.

AR, MR Curve under Perfect competition

The demand curve for the product of a firm under perfect competition is perfectly elastic. Average revenue curve (AR) and marginal revenue (MR) curves are horizontal straight lines like the demand curves (DD) of firms under perfect competition. Under P.C Both average cost (AC) and Marginal Cost (MC), are 'u' shaped**.**



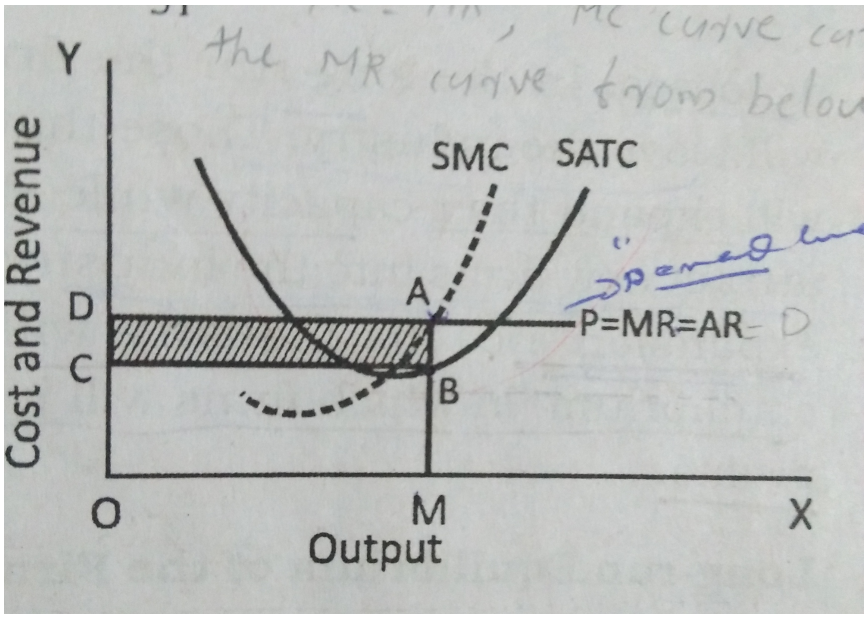
2. MC and MR Approach under Perfect Competition

The MR-MC approach is derived from the TR-TC approach. The two conditions of equilibrium under the MR-MC approach are:

1. MR = MC
2. MC cuts the MR curve from below

Profit is defined as the difference between Total Revenue and Total cost. A firm is in equilibrium when it gets maximum profit.

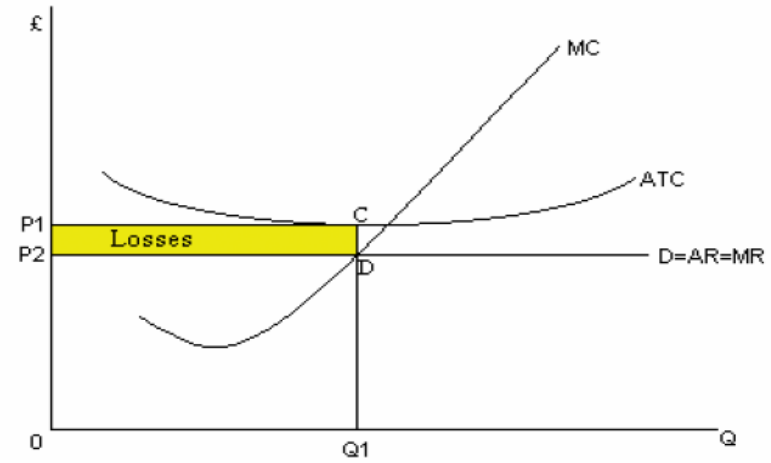
The process of identifying equilibrium through MC and MR is shown in the diagram below:



In the above figure X axis represents output and Y axis is cost and revenue. The above figure satisfies two conditions. The output of a firm is optimum at MC=MR. They are equal at point A. OM is the optimum output of the firm at that level of output SATC is MB where AR or Price is MA. The profit per unit is AB. Total Profit is shown by shaded area ABCD. So this is the Super Normal profit.

Loss making situation Under Perfect Competition

In the next diagram, the firm is making a loss at its equilibrium, profit maximising or loss minimising output, where MC=MR.



The price charged per unit of output P2 is lower than average total cost, P1 and hence the firm makes a loss of P1P2CD.

2. MONOPOLY

It is the Imperfect market situation. The term "Monopoly" is derived from the syllables "mono" and "poly". "Mono" means Single and "poly" means selling. Monopoly may be defined as a market situation in which there is only one seller of a particular commodity, and he has sufficient control over the supply of commodity so as to influence price. Under monopoly, all the firms are price maker and not a price taker.

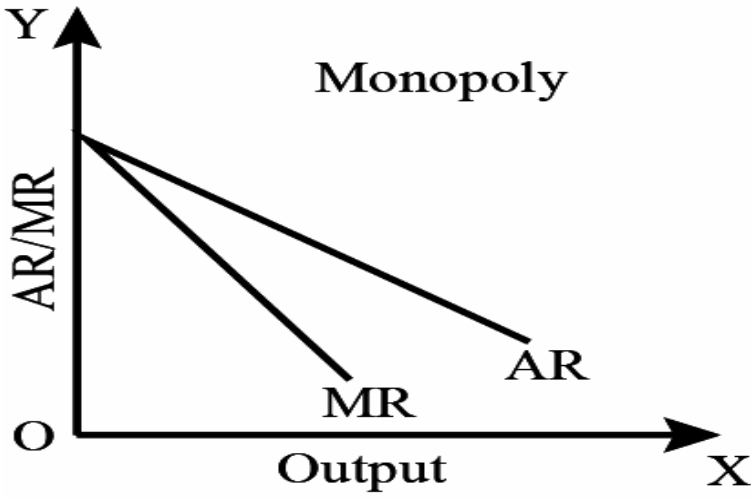
Features or Characteristics

1. There is a single producer or seller of the product. Entire supply of the product comes from this single seller.
2. There is no close substitute for the product.
3. There is no freedom of entry.
4. The monopolist is a price maker.
5. Monopolist may follow a discriminating price policy for product.

Equilibrium of Monopoly (Price &Output Determination under Monopoly)

MR and AR Curve (Demand Curve) of a Monopolist.

The demand curve or AR curve under monopoly is Steeper/negatively sloped. The demand curve is drawn on the assumption that the monopolist is charging the same price for all buyers.



Two conditions are to be satisfied to identify equilibrium..

a. **MC should be equal to MR**

b. **MC curve should cut MR curve from below.**

The monopolist aims at profit maximisation. He will maximize his profit when his MC is equal to the MR and MC must be rising at the point of intersection. In other words, the slope of MC must be greater than slope of MR at the point of intersection This is shown below.

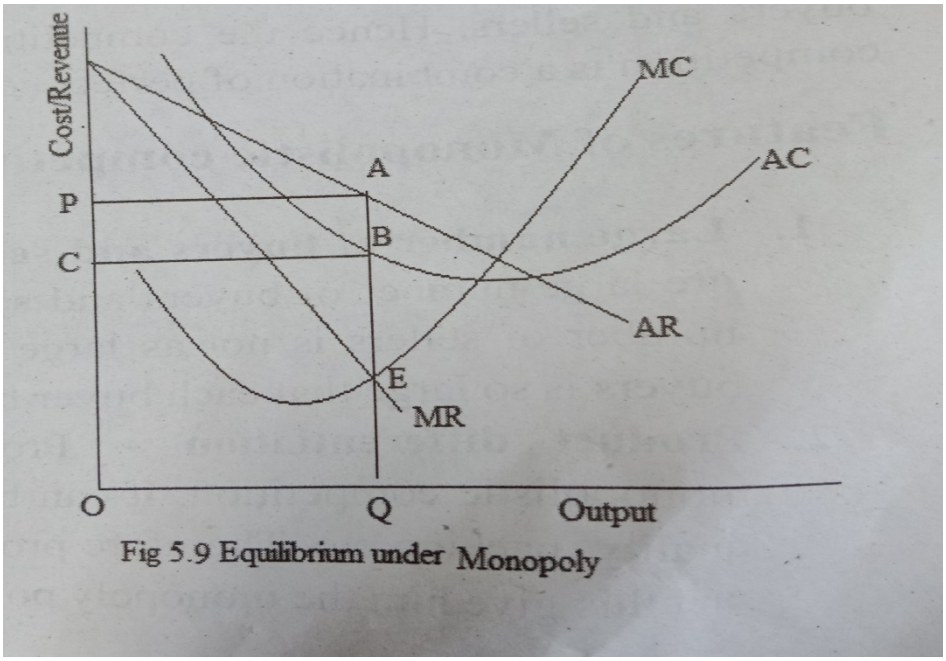


Fig 5.9 Equilibrium under Monopoly

In the diagram at point E, MC =MR, and MC cuts the MR curve from below. Hence E is the equilibrium point and OQ is the equilibrium level of output. When the firm produce OQ level of output QA is the AR or Price. But the AC is less than this and it is QB. AB is the profit per unit. The rectangle PABC shows the total profit earned by monopolist.

3. Monopolistic Competition

Monopolistic Competition may be defined as the market situation in which there are a large number of buyers and sellers dealing in differentiated products with different prices.

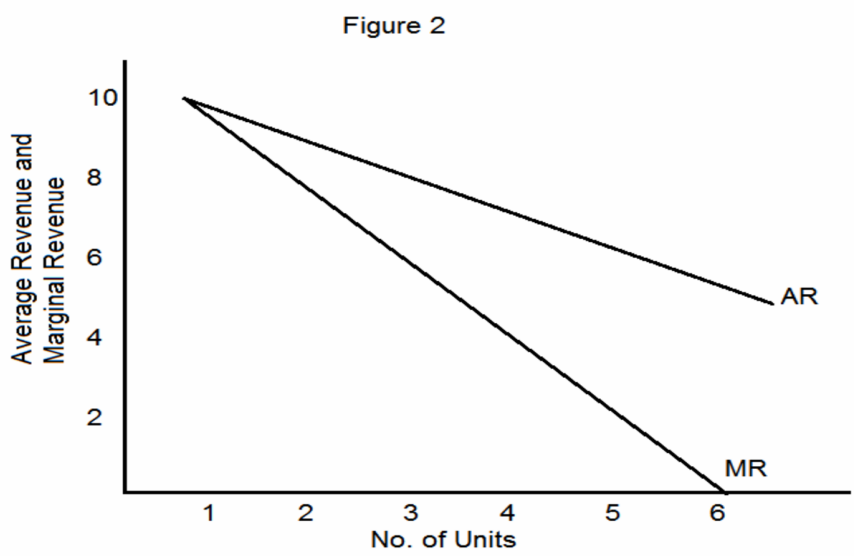
Features of Monopolistic Competition

1. Large number of buyers and sellers
2. They are differentiated products
3. Freedom of entry and exit
4. Non price competition: Selling cost/Advertisement
5. There is absence of perfect knowledge.
6. There is no uniform price.

Equilibrium of Monopolistic Competition (Price &Output Determination under Monopolistic Competition)

AR Curve (Demand Curve)and MR Curve of a firm:

- AR curve or demand curve of a firm is Flatter downward sloping
- MR curve lies below the AR curve



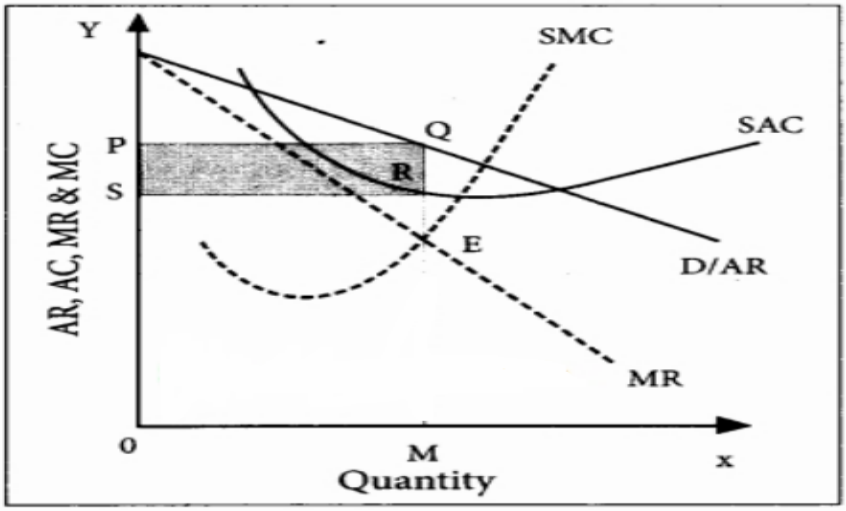
Price and output determination

A firm in Monopolistic competition is in equilibrium when it maximizes profit. Two conditions are to be satisfied to identify equilibrium.

a. **MC should be equal to MR**

b. **MC curve should cut MR curve from below.**

A firm earn supernormal profit in the short run. This situation is explained with the help of the following diagram.



In the above diagram at point E, MC =MR and at this point firm is producing OM level of output. When production is OM, average cost is MR but AR is greater than AC which is MQ. QR shows profit per unit of output. The rectangle PSRQ is the total profit of firm.

4. Oligopoly:

Oligopoly simply means 'competitions among the few". It may be defined as that form of imperfect competition in which there are a few firms selling either an identical products or differentiated products. Oligopoly is also known as Incomplete Monopoly, multiple monopoly etc.

Features or Characterises

1. **Few sellers:**

Under oligopoly a few sellers dominate the entire industry. The sellers influence the price of each other.

2. **Homogenous or differentiated product:**

In certain cases, product may be homogenous like product in perfect competition.

3. **Barriers to Entry**

Even though there are no legal barriers, various economic barriers prevent the entry of new firms.

4. **Mutual Interdependence**

It implies that firms are influenced by each other's decision.

5. **Existence of price rigidity**

6. **Kinked Demand Curve**

Equilibrium of Oligopoly (Price &Output Determination under Oligopoly)

Kinked Demand Curve:

The kinked demand curve model was developed by Paul M Sweezy in 1939. Kinked demand curve explains price rigidity under Oligopoly on the basis of following assumptions:

1. If firm increases its price others will not follow
2. If firm decreases its price others will also do the same.

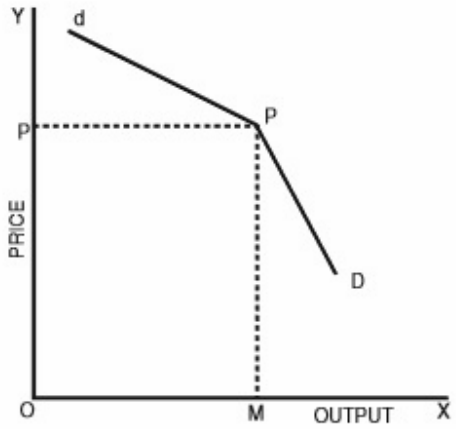
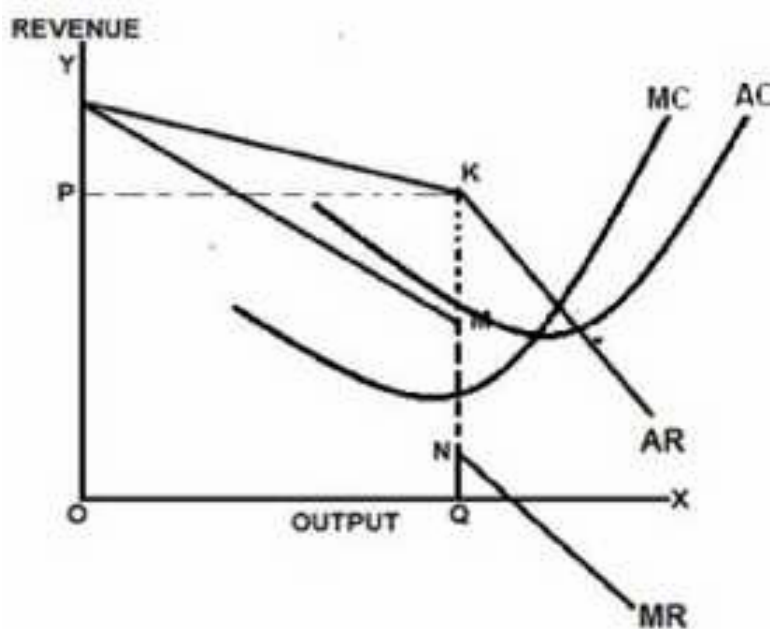


Fig. 1 : Kinked Demand Curve under oligopoly

Usually in oligopoly firms will not enter into a price war and price remains rigid. If firm decreases the price others will also reduce the price and If firm increases its price others will not follow. The lower part of the demand curve is less elastic because a cannot gain from a price cut. The upper part of the demand curve is more elastic because there will be a fall in demand if price hike. The kink at point P in the demand curve.

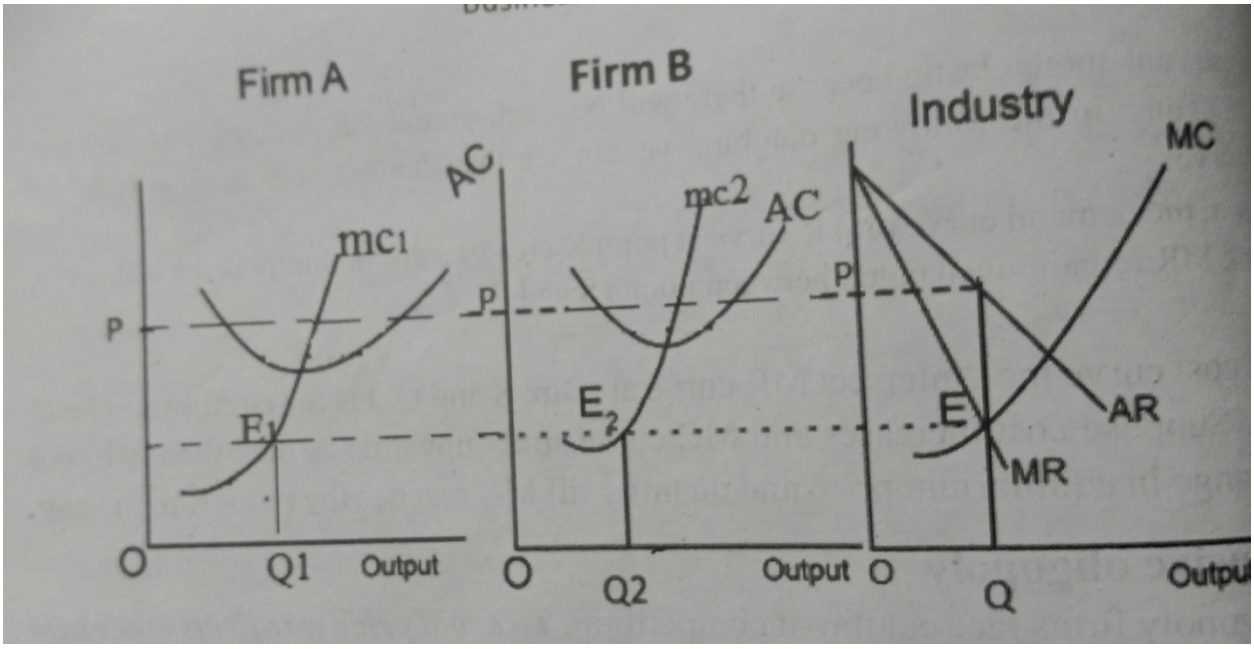


If marginal revenue and marginal costs are added it is possible to show that profits will also be maximised at price P. Profits will always be maximised when MC = MR, and so long as MC cuts MR in its vertical portion, then profit maximisation is still at P. Furthermore, if MC changes in the vertical portion of the MR curve, price still sticks at P. Even when MC moves out of the vertical portion, the effect on price is minimal, and consumers will not gain the benefit of any cost reduction. MC curve passes through the discontinuity range of MR curve. So the equilibrium quantity and price will be corresponding to the kink. Here OQ is the output and OP is the price. Even when there is a large rise in marginal cost, price tends to stick close to its original, given the high price elasticity of demand for any price rise.

Collusive Oligopoly - Cartels

Collusive oligopoly is formed on the basis of the understanding among the firms. Under collusive oligopoly the firms, instead of competing, combine together to fix the prices and outputs of the industry. *To avoid price war firms enter into an agreement regarding uniform price and output. This agreement is known as Collusion.* Collusion help the firms in preventing uncertainties, prevent the entry of new firms and strengthen the bargaining power of the firms.

Cartel is an formal agreement between firms. Under cartel firms involve in price and output fixation, division of profit, market share etc. Price and output under cartel is determined by a central administrative authority. Price and output determination under cartel can be explained with the help of an example. It is assumed that 2 firms are which form a cartel.



In the above diagram MC 1 is the Marginal cost curve of Firm A and MC2 is the Marginal cost curve of Firm B. The industry MC curve is obtained by adding MC 1and MC 2. The industry MC curve is intersecting the MR curve at the point E and the equilibrium output is OQ and price is OP. This output is shared among the two firms The E1,E2 are the equilibrium point of firm A and B. Firm A produce OQ1 output and Firm B produce OQ2. In the diagram MC of a firm A is less and produces more output. Its AC is low and get profit.

Non- Price Competition

Non-price competition is a marketing strategy "in which one firm tries to distinguish its product or service from competing products on the basis of attributes like design and workmanship ". Non-price competition refers to competition between companies that focuses on benefits, extra services, good workmanship, product quality – plus all other features and measures. Non-price competition is a marketing strategy that typically includes promotional expenditures such as sales staff, sales promotions, special orders, free gifts, coupons, and advertising.

Pricing Methods

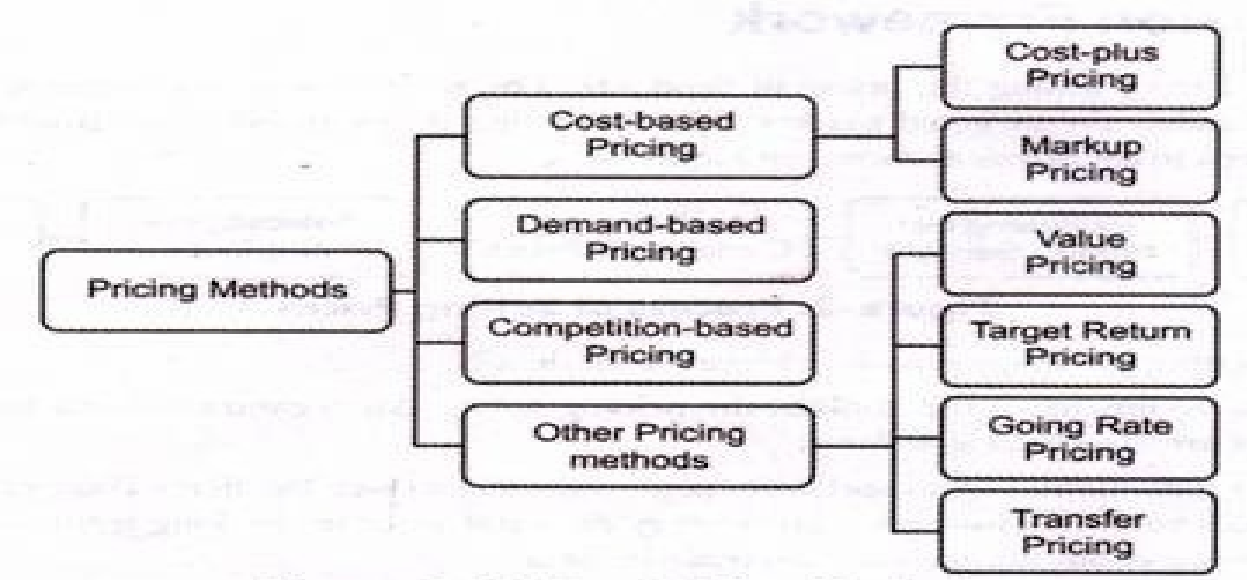


Figure-4: Various Pricing Methods

1. Product Pricing

Product Pricing is a pricing strategy in which the byproducts of a process are also sold separately at a specific price so as to earn additional revenue from the same infrastructure and setup. By product is something which is produced as a result of producing something else (the main product). Usually, the byproducts are disposed of and have little value.

Example:

When meat is processed for human consumption, the by product can be used as food for dog/cat. So the manufacturer can sell it in market to recover some of his expenses say transportation and storage costs

2. Cost Plus Pricing

Cost Plus Pricing is a very simple pricing strategy where you decide how much extra you will charge for an item over the cost. Cost-plus pricing is a pricing method companies use to arrive at a sale price for their product or service. Cost-plus pricing is also known as markup pricing. It's a pricing method where a fixed

percentage is added on top of the cost it takes to produce one unit of a product (unit cost). The resulting number is the selling price of the product.

Advantages of cost plus pricing

1. Cost plus pricing strategy takes few resource
2. Cost plus pricing model provides full cost coverage and a consistent rate of return.
3. Cost plus pricing hedges against incomplete knowledge.

Disadvantages of cost plus pricing

1. Cost plus pricing strategy can be horribly inefficient.
2. Cost plus pricing method creates a culture of profit losing isolationism.
3. Cost plus pricing doesn't take consumers into account

3. Target Return Pricing

In target return pricing, price is determined based on the rate of return targeted on investment. It is also called Return on investment. This type of method is used in e-commerce. Here, the firm calculates the amount invested in the business activities and then determine the return they expect from these assuming a particular quantity of the product is sold.

The target return price can be calculated as:

Target return price = unit cost + (desired return * invested capital) / unit sales

If a manufacturer wants to start a pencil manufacturing business with initial invested Rs.1000000/- in expected return on investment 25%. Assuming 25000 sales with manufacturing cost = Rs. 5/unit.

The target-return pricing is easy to calculate and understand. Also, it gives direction towards which the efforts of all the team members should be directed, to accomplish the set ROI. But however, the major limitation of this method is the accuracy with which the amount of sales is estimated. It is not necessary that the quantity for which the set ROI is achievable will be same for all the other quantities.

4. Penetration Pricing

Penetration pricing is a marketing strategy used by businesses to attract customers to a new product or service by offering a lower price during its initial offering. The lower price helps a new product or service penetrate the market and attract customers away from competitors. Penetration pricing is a marketing technique for offering a product or service at a reduced rate to better compete in the industry.

Example: A new telecommunication company in the market has offered to provide one-month free internet services to its subscribers. Such is an example of penetration pricing since the telecommunication company, to enter the market, has provided its internet services for free for an initial period of one month.

Advantages of Penetration Pricing

- **High adoption and diffusion**: Penetration pricing enables a company to get its product or service quickly accepted and adopted by customers.
- **Marketplace dominance**: Competitors are typically caught off guard by a penetration pricing strategy and are afforded little time to react. The company is able to utilize the opportunity to switch over as many customers as possible.
- **Economies of scale**: The pricing strategy generates a high sales quantity that enables a firm to realize economies of scale and lower its marginal cost.
- **Increased goodwill**: Customers that are able to find a bargain in a product or service are likely to return to the firm in the future. In addition, this increased goodwill creates positive word of mouth.
- **High inventory turnover**: Penetration pricing results in an increased inventory turnover rate, making vertical supply chain partners, such as retailers and distributors, happy.

Disadvantages of Penetration Pricing

- **Pricing expectation**: When a firm uses a penetration pricing strategy, customers often expect permanently low prices. If prices gradually increase, customers may become dissatisfied and may stop purchasing the product or service.
- **Low customer loyalty**: Penetration pricing typically attracts bargain hunters or those with low customer loyalty. Said customers are likely to switch to competitors if they find a better deal. Price cutting, while effective for making some immediate sales, rarely engenders customer loyalty.

- **Damage brand image**: Low prices may affect the brand image, causing customers to perceive the brand as cheap or poor quality.
- **Price war**: A price penetration strategy may trigger a price war. This decreases overall profitability in the market, and the only companies strong enough to survive a protracted price war are usually not the new entrant who triggered the war.
- **Inefficient long-term strategy**: Price penetration is not a viable long-term pricing strategy. It is usually a better idea to approach the marketplace with a pricing strategy that your company can live with, long-term. While it may then take longer to acquire a sizeable market share, such a patient, long-term strategy is more likely to serve your company better overall, and less likely to expose you to severe financial risks.

5. Predatory Pricing

Predatory pricing is the lowering of prices by a company specifically to put rival firms out of business. A predatory pricing strategy, a term commonly used in marketing, refers to a pricing strategy in which goods or services are offered at a very low price point. By eliminating the competition, the company edges closer to becoming a monopoly, a privileged position of market dominance that could enable it to fix prices and circumvent the natural laws of supply and demand.

Example: If you had a competitor that was selling a TV at $100, and you sold the same TV at $80 (while taking a loss) because you knew they couldn't beat your price, you're in acting in predatory pricing.

The various advantages of adopting predatory pricing are as follows-

1. Dominant position – The predatory pricing helps the company to gain a dominant position in the market
2. Minimizes competition – The predatory pricing of rival companies who are unable to bear the loss because of continuously lowered prices start bowing out of the market one-by-one. It ultimately helps to minimize the competition to a greater degree
3. No place for new entrants – The predatory pricing is a dead-end for the new entrants as it will not be able to sustain its business in such hard conditions. This strategy acts as a barrier that deters them from entering new markets

The disadvantages of using predatory pricing are as follows-

1. Illegal practice – The predatory pricing is considered an illegal practice in several countries and is frowned upon
2. Not feasible in the long run – The predatory pricing seems like a viable concept in the short term but will become impossible to maintain over a longer period.

6. Going Rate Pricing

It is also known as Parity Pricing. Going rate pricing is when a business sets the price of its product or service based on the market price. This pricing strategy is often used to price similar products, like commodities or generic items, that have little variation in design and function. In the going rate-pricing method, price is determined on the basis of present rates prevailing in the market. This method assumes that there will be no price war within the industry. It is commonly used in the oligopolistic market.

Advantages

The advantages of the going rate-pricing method are as follows −

- Competitor's price is taken as base.
- Uniform price in market.
- Misguiding customers is protected.

Disadvantages

The disadvantages of the going rate-pricing method are as follows −

- Only competitor price is considered.
- Inaccurate decisions.
- Production costs etc. are ignored.

7. Price Skimming

Skim pricing, also known as price skimming, is a pricing strategy that sets new product prices high and subsequently lowers them as competitors enter the market. Skim pricing is the opposite of penetration pricing, which prices newly launched products low to build a big customer base at the outset.

Ex: Apple periodically introduces new iPhones with the latest features at a high price, attracts price-insensitive customers who value having the latest device to hit stores, and then sells them at lower prices to price-sensitive customers as newer versions are introduced.

Advantages

- Price skimming covers the costs of innovation and provides money for product development.
- Early-adopters naturally become the word of mouth marketing channels.
- It allows you to segment the market and target all at different price levels.

Disadvantages

- Early adopters will be disturbed by the price decreases.
- Eventually, every technology is adopted.