What is Market

In Common Parlance, Market have connotations of a place where buyers and sellers gather to exchange goods at a price.

In Economics, a market need not be formal or held in a particular place.
A market is a collection of buyers and sellers with the potential to trade. The actual or potential interactions of the buyers and sellers determine the price of a product or service.

What is Market

While studying about market economy, it is essential to understand how price is determined.

The elements of a market are:

(i) Buyers and sellers;
(ii) A product or service;
(iii) Bargaining for a price;(Competition)
(iv) Knowledge about market conditions;
(v) One price for a product or service at a given time

Classification of Market

Classification of Market

From Producer's Point of View

Profit Maximisation = Total Revenue – Total Cost

↓

Demand for the Product

↓

Elasticity of Demand

↓

Substitution available

↓

Competition

↓

Market Structure

Classification of Market

On the basis of competition

Different Market Structure are

- **Perfect Competition**
- **Imperfect Competition**

a. **Monopolistic Competition**
b. **Monopoly**
c. **Oligopoly**

Classification of Market

Features of Perfect Competition

Large Number of Buyers and Sellers:

There are large number of buyers and sellers who compete among themselves.
The number is so large that the share of each seller in the total supply and the share of each buyer in the total demand is too small that no buyer or seller is in a position to influence the price, demand or supply in the market.

Classification of Market

Features of Perfect Competition

Homogeneous Product

The products supplied by all firms are identical or are homogeneous in all respects so that they are perfect substitutes. Thus, all goods must sell at a single market price.

Buyers have no preference as between different sellers ; also sellers are quite indifferent as to whom they sell.

For example, most agricultural products, raw materials such as copper, iron, cotton, and sheet steel etc. are fairly homogeneous.

In addition, all consumers have perfect information about competing prices.

Classification of Market

Features of Perfect Competition

Free entry and Free exit:

Every firm is free to enter the market or to go out of it.

There are no legal or market related barriers to entry and also no special costs that make it difficult for a new firm either to enter an industry and produce, if it sees profit opportunity or to exit if it cannot make a profit.

Classification of Market

Features of Perfect Competition

Perfect Knowledge

There is perfect knowledge of the market conditions on the part of buyers and sellers.

Both buyers and sellers have all information relevant to their decision to buy or sell such as the quantities of stock of goods in the market, the nature of products and the prices at which transactions of purchase and sale are being entered into

Classification of Market

Features of Perfect Competition

Low Transaction Cost

Perfectly competitive markets have very low transaction costs. Buyers and sellers do not have to spend much time and money finding each other and entering into transactions

Classification of Market

Features of Perfect Competition

Price Takers:

Under prefect competition, all firms individually are price takers. The firms have to accept the price determined by the market forces of total demand and total supply.

The assumption of price taking applies to consumers as well.

When there is perfect knowledge and perfect mobility, if any seller tries to raise his price above that charged by others, he would lose his customers.

While there are few examples of perfect competition which is regarded as a myth by many, the agricultural products, financial instruments (stock, bonds, foreign exchange), precious metals (gold, silver, platinum) approach the condition of perfect competition

Classification of Market

Monopoly

The word ‘Monopoly’ means “alone to sell”. Monopoly is a situation in which there is a single seller of a product which has no close substitute.

Pure monopoly(No substitute) is never found in practice.

However, in public utilities such as transport, water and electricity, we generally find a monopoly form of market.

Classification of Market

Features of Monopoly

Single seller of the product:

In a monopoly market, there is only one firm producing or supplying a product.

This single firm constitutes the industry and as such there is no distinction between firm and industry in a monopolistic market.

Monopoly is characterized by an absence of competition.

Classification of Market

Features of Monopoly

Barriers to Entry:

In a monopolistic market, there are strong barriers to entry.

The barriers to entry could be economic, institutional, legal or artificial.

Classification of Market

Features of Monopoly

No close-substitutes:

A monopoly firm has full control over the market supply of a product or service.
The monopolist generally sells a product which has no close substitutes.
A monopolist is a price maker and not a price taker.

Cross elasticity of demand = zero or very small (Because of No close Substitute).
Price elasticity of demand = less than one.(Because of No close Substitute).

As a result, the monopolist faces a steep downward sloping demand curve.

Classification of Market

Features of Monopoly

Market power:

A monopoly firm has market power i.e. it has the ability to charge a price above marginal cost and earn a positive profit.

While to some extent all goods are substitutes for one other, there may be essential characteristics in a good or group of goods which give rise to gaps in the chain of substitution.

If one producer can so exclude competition that he controls the supply of a good, he can be said to be 'monopolist' – a single seller

Classification of Market

Imperfect Competition (Monopolistic Competition)

Consider the market for soaps and detergents. Among the well known brands on sale are Lux, Vivel, Cinthol, Dettol, Liril, Pears, Lifebuoy Plus, Dove etc.

Since all the soaps are almost similar. But, on a close inspection we find that though these products are technically and functionally similar, each seller produces and sells a product which is different from those of his competitors.

For example, whereas

- **Lux is claimed to be a beauty soap,**
- **Liril is associated more with freshness.**
- **Dettol soap is placed as antiseptic and**
- **Dove claims to ensure young smooth skin.**

Classification of Market

Features of Monopolistic Competition

Large number of sellers:

In a monopolistically competitive market, there are large number of independent firms who individually have a small share in the market.

Classification of Market

Features Of Monopolistic Competition

Product differentiation:

In a monopolistic competitive market, the products of different sellers are differentiated on the basis of brands.

Note: Because competing products are close substitutes, Demand is relatively elastic, but not perfectly elastic as in perfect competition.

Firms use size, design, colour, shape, performance, features and distinctive packaging and promotional techniques to make their products different.

Note: Such differentiation may be true or fancied. Brands are generally so much advertised that a consumer starts associating the brand with a particular manufacturer and a type of brand loyalty is developed.

Classification of Market

Features Of Monopolistic Competition

Freedom of entry and exit:

Barriers to entry are comparatively low and new firms are free to enter the market if they find profit prospects and existing firms are free to quit.

Classification of Market

Features Of Monopolistic Competition

Non-price competition:

In a monopolistically competitive market, firms are often in fierce competition with other firms offering a similar product or service, and therefore try to compete on bases other than price,

For example:
They indulge in aggressive advertising,
Product development,
Better distribution arrangements,
Efficient after-sales service and so on.

This is because price competition may result in price – wars which may throw a few firms out of market or reduce the profit margins

Classification of Market

Oligopoly

Oligopoly is often described as ‘competition among the few’. 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”.

Consider the example of cold drinks industry or automobile industry.
There are a handful firms manufacturing cold drinks in India.
Similarly, there are a few firms in the automobile industry in India.
Airlines industry, petroleum refining, power generation and supply in most of the parts of the country are examples of oligopolistic market.

The oligopolistic industry is dominated by a small number of large firms, each of which is comparatively large relative to the total size of the market.

Classification of Market

Features of Oligopoly

Strategic Interdependence:

The most important feature of oligopoly is interdependence in decision making of the few firms which comprise the industry.

When the number of competitors is few, any change in price, output or product by a firm will have direct effect on the fortunes of the rivals who will then retaliate by changing their own prices, output or advertising technique as the case may be.

Under oligopoly, each seller is big enough to influence the market.

It is, therefore, clear that an oligopolistic firm must consider not only the market demand for its product, but also the reactions of other firms in the industry to any major decision it takes.

Classification of Market

Features of Oligopoly

Importance of advertising and selling costs:

A direct effect of interdependence of oligopolists is that the firms have to employ various aggressive and defensive marketing weapons to gain greater share in the market or to maintain their share.

For this, firms have to incur a good deal of costs on advertising and other measures of sales promotion. Therefore, there is great importance for advertising and selling costs in an oligopoly market.

It is to be noted that firms in such type of market 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 which will drive a few of them out of the market as customers will try to buy from the seller selling at the cheapest price.

Classification of Market

Features of Oligopoly

Group behaviour :

The theory of oligopoly is a theory of group behaviour, not individual behaviour and to assume profit maximising behaviour on the oligopolists' part may not be very valid.

There is no generally accepted theory of group behaviour. The firms may agree to pull together as a group in promotion of their common interest or will competer

But one thing is certain. Each oligopolist closely watches the business behaviour of the other oligopolists in the industry and designs his moves on the basis of some assumptions of how they behave or are likely

Concept of Revenue

Concept of Revenue

Total Revenue:

Total revenue refers to the amount of money which a firm realises by selling certain units of a commodity.

Symbolically, total revenue may be expressed as

TR = P x Q.

If a firm sells 40 units for Rs.30 each, It realises Rs. 1,200 (40 x 30) that is total revenue

Classification of Market

Average Revenue:
Average revenue is the revenue earned per unit of output.
Average revenue curve is also the firms demand curve.

Symbolically, average revenue is: TR/Q
Or AR = P X Q /Q
AR = P

Price (Y- axis)	Demand (Output) (X-axis)	TR	AR (Y- Axis)
10	100	1000	10
20	75	1500	20
30	50	1500	30
40	25	1000	40

Classification of Market

Marginal Revenue:
Marginal revenue (MR) is the change in total revenue resulting from the sale of an additional unit of the commodity.

MR = Change in TR/ Change in Q

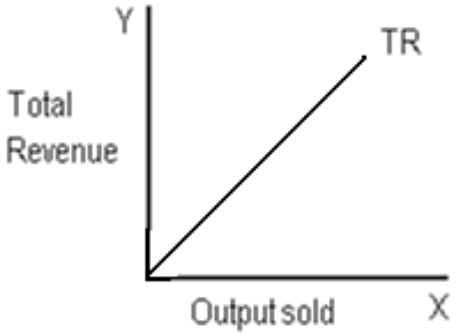
Thus, if a seller realises Rs.1,000 while selling 100 units and Rs.1,200 while selling 101 units, we say that the marginal revenue is Rs.200.

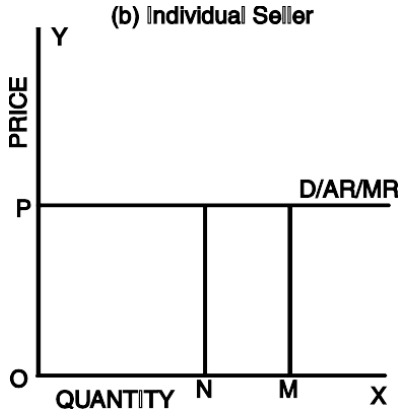
Revenue Curve in Different Market Structure

Classification of Market

TR, AR and MR in Perfect competition (Price Taker):

Price	Quantity	TR	AR	MR
10	1	10	10	10
10	2	20	10	10
10	3	30	10	10
10	4	40	10	10





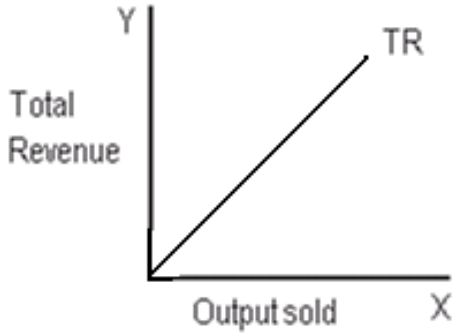
Classification of Market

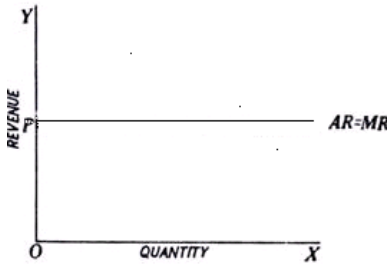
TR, AR and MR in Perfect competition:

TR curve
TR curve is linear and starts from the origin

AR Curve / Demand Curve
Average revenue (or price) curve or demand curve is perfectly elastic and Horizontal Straight Line. (Perfect Competition – Price Taker)

MR Curve
MR = AR (AR curve and MR curve will coincide and will be horizontal curves).



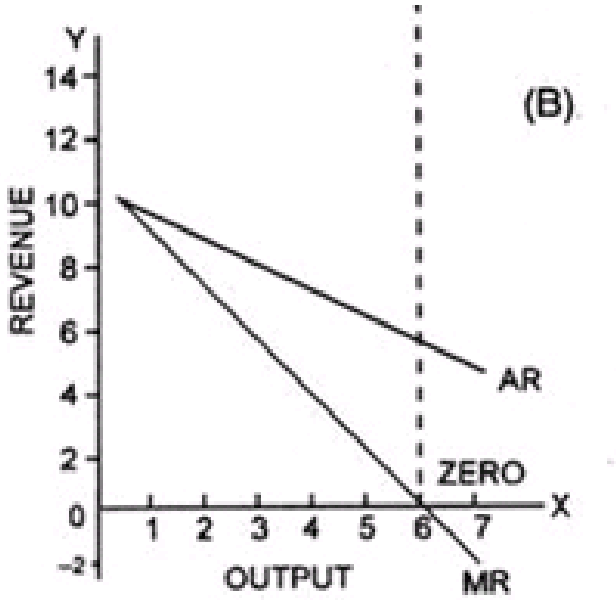


AR and MR Curves under Perfect Competition

Classification of Market

TR, AR and MR in Imperfect Competition (Monopoly/ MC) – Market Power -Price Maker

Price	Quantity	TR	AR	MR
10	1	10	10	10
9	2	18	9	8
8	3	24	8	6
7	4	28	7	4
6	5	30	6	2
5	6	30	5	0
4	7	28	4	-2



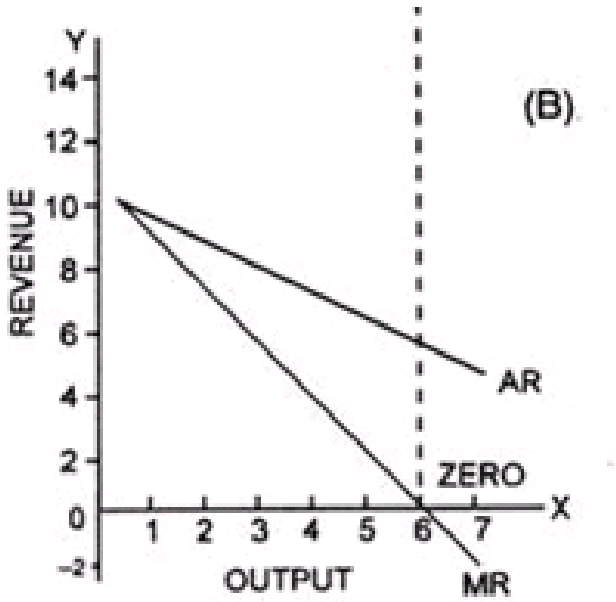
Classification of Market

AR and MR in Imperfect Competition

- AR/ Demand Curve is Downward Sloping
- MR Curve is falling , becomes zero and then Negative

Relationship Between AR and MR

Output	MR	AR
1-5	Falling but positive	Falling
6	Zero	Falling
6-8	Falling but Negative	Falling



Relationship between TR, AR, MR and Elasticity

Relationship between TR, AR, MR and Elasticity

It is to be noted that marginal revenue, average revenue and price elasticity of demand are uniquely related to one another through the formula:

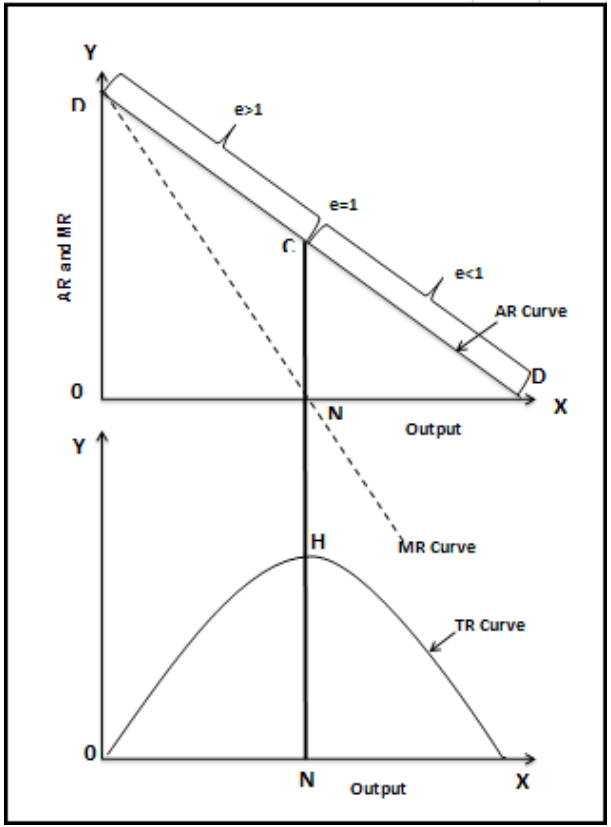
MR = AR (e – 1/e) , Where e = price elasticity of demand

Thus

- **if e = 1, MR = AR (1- 1/1) = 0**
- **if e >1, MR will be positive**
- **if e <1, MR will be negative**

Relationship between TR, AR, MR and Elasticity

Elasticity	Demand Curve	Marginal Revenue	Total Revenue
E = 1	Midpoint	MR = 0	Maximum
E > 1	Above Midpoint	MR = Positive	TR increases
E < 1	Below Midpoint	MR = Negative	TR decreases



Behavioral Principles

Principle 1- A firm should not produce at all if its total variable costs are not met.

Output %	AFC	AVC	AC	AR	Profit/Loss		
20000	1000	500	1500	1800	300	(AR>AC)	Super Normal Profit
20000	1000	500	1500	1500	0	(AR= AC)	Normal Profit
20000	1000	500	1500	800	700	(AC>AR>AVC)	Loss/Sub normal Profit
20000	1000	500	1500	300	1200	(AC>AVC>AR)	Shutdown

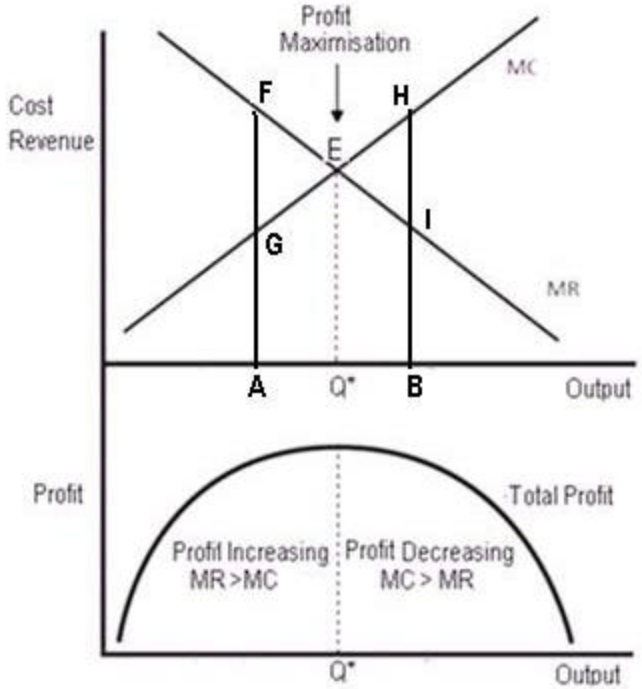
Behavioral Principles

Principle 2 - The firm will be making maximum profits by expanding output to the level where marginal revenue is equal to marginal cost.

If MR > MC – Increase the production
If MR < MC – Decrease the production
When MR= MC – Producer Equilibrium (Profit Maximum Output)

Marginal revenue curve slopes downwards and Marginal cost curve slopes upwards.

They intersect each other at point E (MC= MR) which corresponds to output Q.*



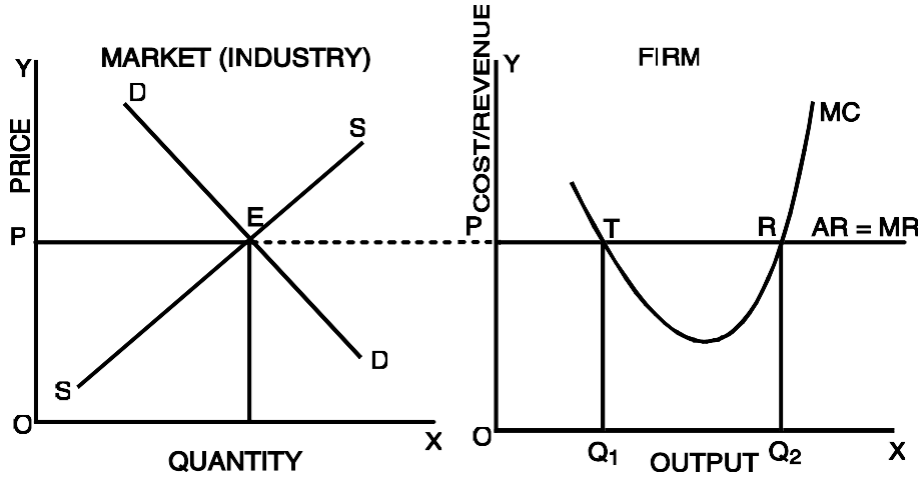
Perfect Competition

Equilibrium of the Firm:
The firm is said to be in equilibrium when it maximizes its profit.
The output which gives maximum profit to the firm is called equilibrium output.

Firms in a competitive market are price-takers.

Condition for Equilibrium
(i) MR = MC.
Note:
In perfect Competitive Market
MR = P
MC = P

(ii) The MC curve should cut MR curve from below. MC should have a positive slope

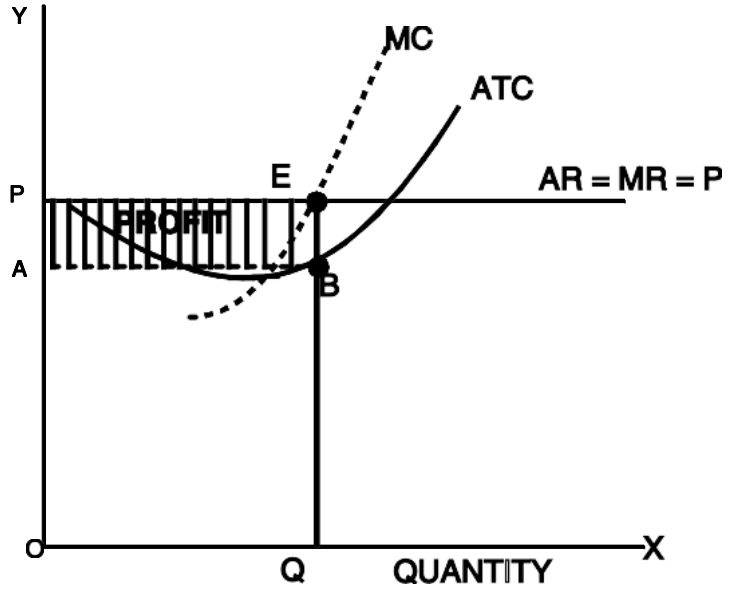


Perfect Competition

Short run Equilibrium

1. Super Normal Profit or Abnormal Profits

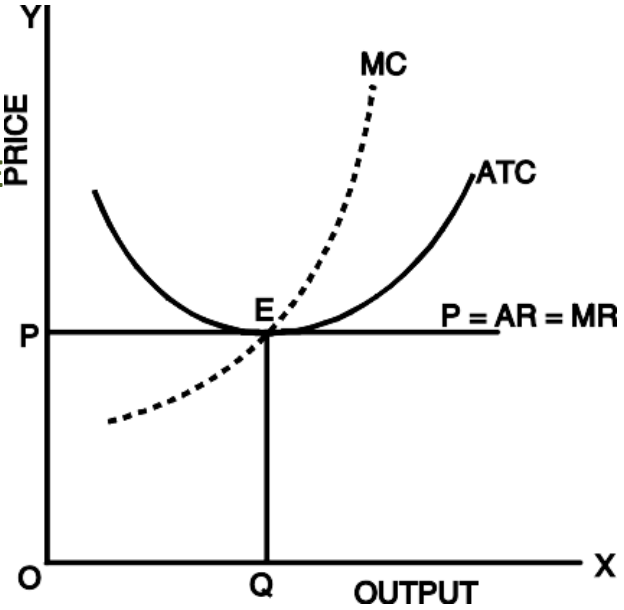
MR – Horizontal Straight line(PC)
MC – U shape (Law of VP)
MR = MC (Profit Maximisation) at Equilibrium Point E
Equilibrium Quantity = OQ
Equilibrium Price = OP (PC – Price Taker)
ATC = BQ at Equilibrium Quantity
AR = EQ at Equilibrium Quantity
AR > AC – Super Normal Profit



Perfect Competition

Short run Equilibrium
2. Normal Profit

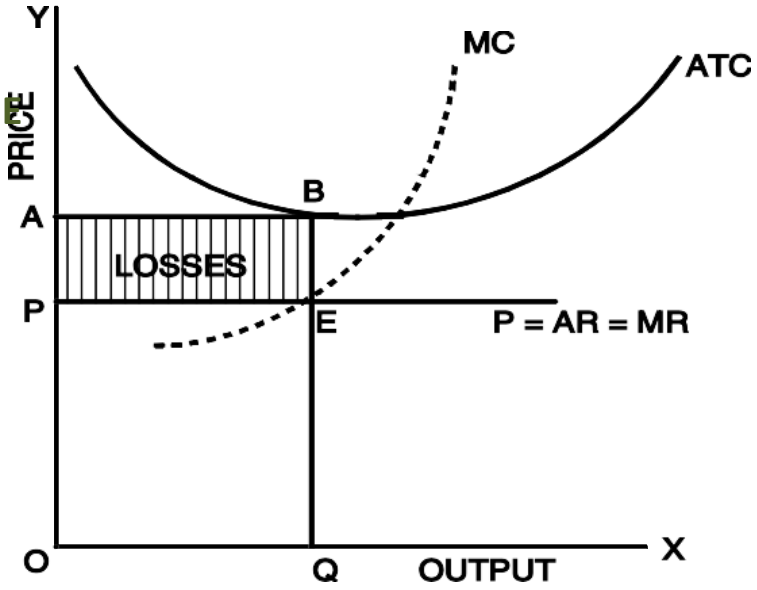
MR – Horizontal Straight line(PC)
MC – U shape (Law of VP)
MR = MC (Profit Maximisation) at Equilibrium Point E
Equilibrium Quantity = OQ
Equilibrium Price = OP (PC – Price Taker)
ATC = EQ at Equilibrium Quantity
AR = EQ at Equilibrium Quantity
AR = AC – Normal Profit
Profit = TR- TC = 0



Perfect Competition

Short run Equilibrium
3. Loss

MR – Horizontal Straight line(PC)
MC – U shape (Law of VP)
MR = MC (Profit Maximisation) at Equilibrium Point E
Equilibrium Quantity = OQ
Equilibrium Price = OP (PC – Price Taker)
ATC = BQ at Equilibrium Quantity
AR = EQ at Equilibrium Quantity
AR < AC – Loss
Profit = TR- TC = PABE (Loss)



Perfect Competition

Long Run Equilibrium

In the long run, firms can alter the scale of operation or quit the industry and new firms can enter the industry.
In a market with entry and exit,
a firm enters when it believes that it can earn a positive long run profit and
a firm exits when it faces the possibility of a long-run loss.

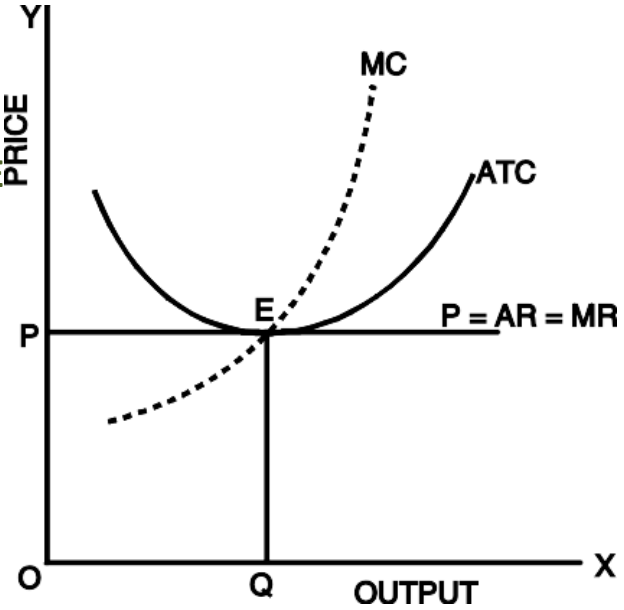
Super Normal Profit – Short Run
Seller increase
Supply increase
Price decrease and Quantity Increase
Normal Profit – Long Run

Loss – Short Run
Seller decrease
Supply decrease
Price Increase and Quantity decrease
Normal Profit – Long run

Perfect Competition

Long run Equilibirum

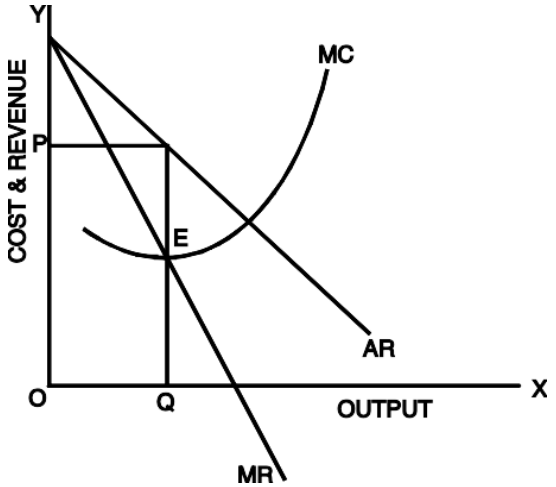
MR – Horizontal Straight line(PC)
MC – U shape (Law of VP)
MR = MC (Profit Maximisation) at Equilibrium Point E
Equilibrium Quantity = OQ
Equilibrium Price = OP (PC – Price Taker)
ATC = EQ at Equilibrium Quantity
AR = EQ at Equilibrium Quantity
AR = AC – Normal Profit
Profit = TR- TC = 0



Monopoly

Condition for Equilibrium.

1. **MC= MR**
2. **The MC curve should cut MR curve from below. In other words, MC should have a positive slope**



Note:

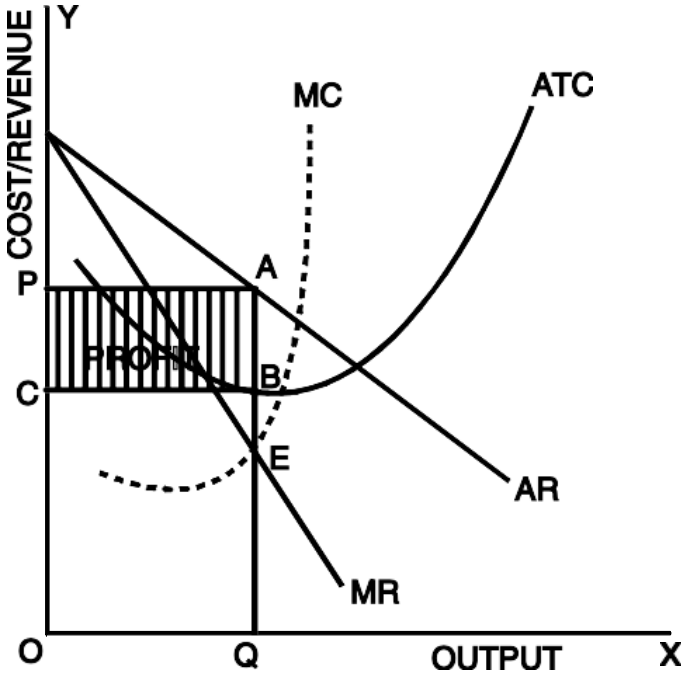
Firms in a perfectly competitive market are price-takers so that they are only concerned about determination of output.

In a case of a monopolist. A monopolist has to determine not only his output but also the price of his product

Monopoly

Short Run Equilibrium :

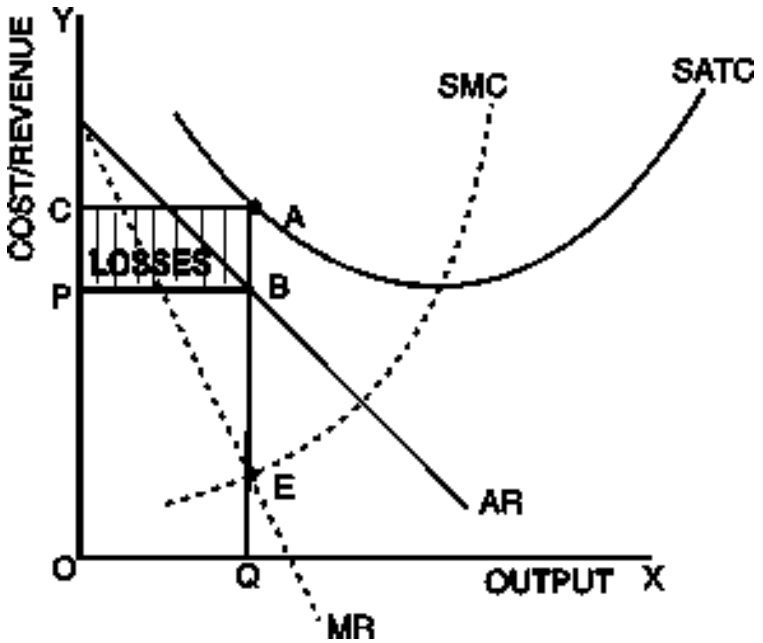
MR – Downward Sloping (Monopoly- Relative Inelastic)
MC – U shape (Law of VP)
MR = MC (Profit Maximisation) at Equilibrium Point E
Equilibrium Quantity = OQ
Equilibrium Price = OP (Price Maker)
ATC = BQ at Equilibrium Quantity
AR = AQ at Equilibrium Quantity
AR > AC – Super Normal Profit
Profit = TR- TC = CPAB



Monopoly

Short Run Equilibrium : Can a monopolist incur losses? Yes

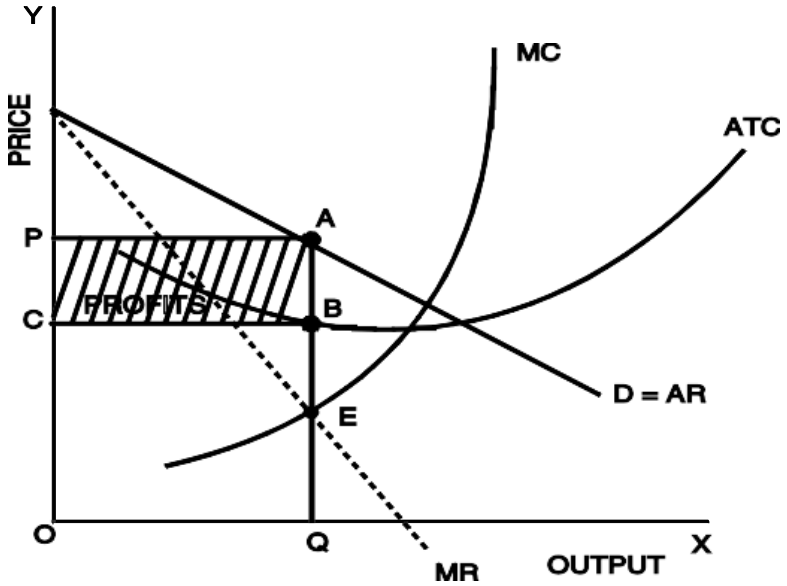
MR – Downward Sloping (Monopoly- Relative Inelastic)
MC – U shape (Law of VP)
MR = MC (Profit Maximisation) at Equilibrium Point E
Equilibrium Quantity = OQ
Equilibrium Price = OP (Price Maker)
ATC = AQ at Equilibrium Quantity
AR = BQ at Equilibrium Quantity
AR < AC – Loss
Profit = TR- TC = CPAB (Loss)



Monopoly

Long Run Equilibrium:

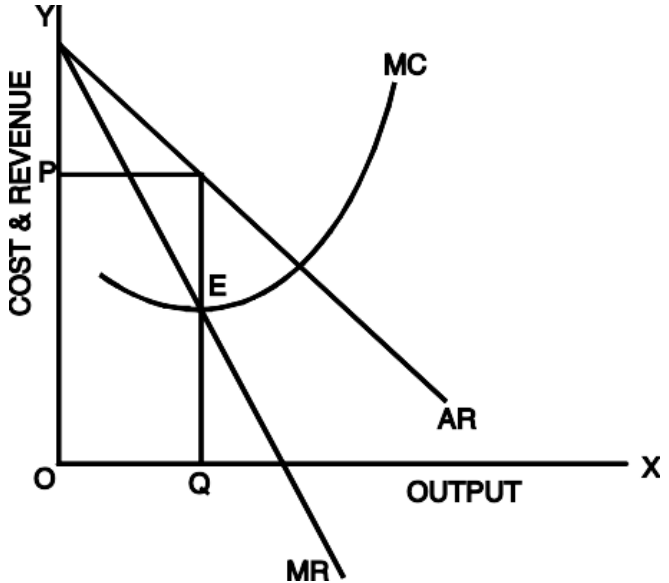
MR – Downward Sloping (Monopoly)
MC – U shape (Law of VP)
MR = MC (Profit Maximisation) at Equilibrium Point E
Equilibrium Quantity = OQ
Equilibrium Price = OP (PC – Price Maker)
ATC = BQ at Equilibrium Quantity
AR = AQ at Equilibrium Quantity
AR > AC – Super Normal Profit
Profit = TR- TC = CPAB



Monopolistic Competition

Condition for Equilibrium.

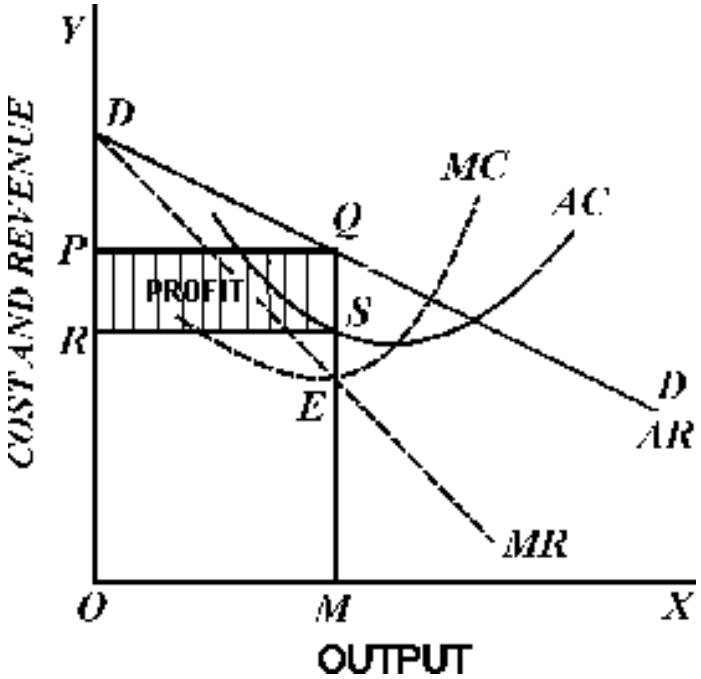
1. **MC= MR**
2. **The MC curve should cut MR curve from below. In other words, MC should have a positive slope**



Monopolistic competition

Short Run Equilibrium :

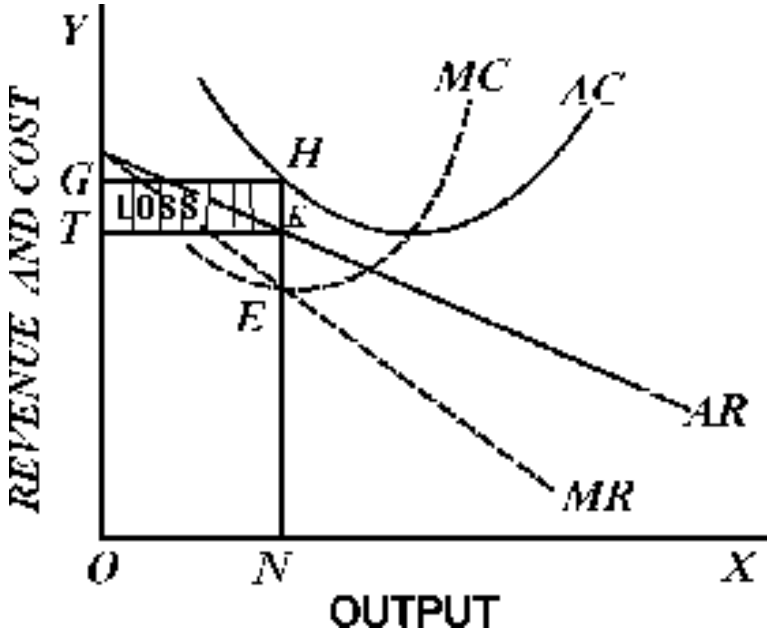
MR – Downward Sloping (MC- Relative Elastic)
MC – U shape (Law of VP)
MR = MC (Profit Maximisation) at Equilibrium Point E
Equilibrium Quantity = OM
Equilibrium Price = OP (Price Maker)
ATC = SM at Equilibrium Quantity
AR = QM at Equilibrium Quantity
AR > AC – Super Normal Profit
TC = AC x Q (SM X OQ) – OPQM
TR = AR x Q (QM x OQ) – ORSM
Profit = TR- TC = RPQS



Monopolistic competition

Short Run Equilibrium :

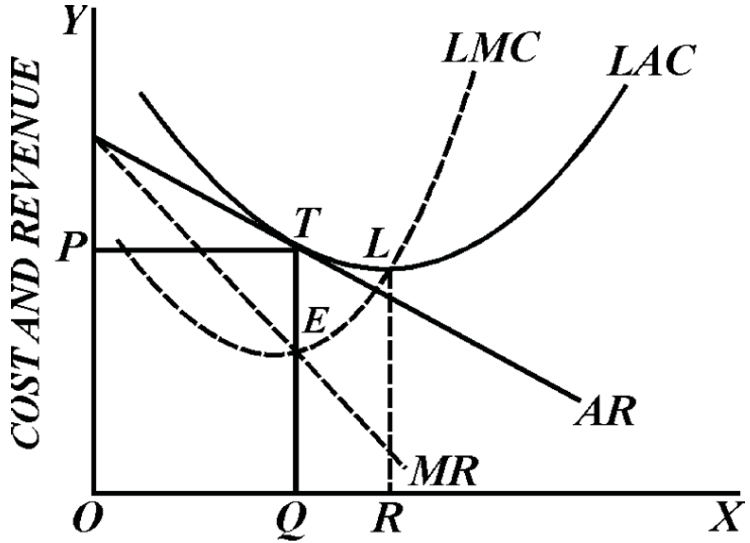
MR – Downward Sloping (MR- Relative Elastic)
MC – U shape (Law of VP)
MR = MC (Profit Maximisation) at Equilibrium Point E
Equilibrium Quantity = ON
Equilibrium Price = OT (Price Maker)
ATC = HN at Equilibrium Quantity
AR = RN at Equilibrium Quantity
AR < AC – Loss
Profit = TR- TC = TGHR



Monopolistic competition

Long Run Equilibrium :

MR – Downward Sloping (MC- Relative Elastic)
MC – U shape (Law of VP)
MR = MC (Profit Maximisation) at Equilibrium Point E
Equilibrium Quantity = OQ
Equilibrium Price = OP (Price Maker)
ATC = TQ at Equilibrium Quantity
AR = TQ at Equilibrium Quantity
AR = AC – Normal Profit
Profit = TR= TC = 0



Monopoly Power

Monopoly power of a firm, is its ability to set the price of its product above the marginal cost

According to Prof. Lerner, degree of monopoly power in perfect competition is zero.
At the equilibrium point of a competitive firm, we have p = AR = MR = MC, or p = MC, or p – MC = 0.
On the other hand, at the equilibrium point of a monopolistic firm, we have p = AR > MR = MC, or, p > MC, or, p – MC = positive.

The degree of monopoly power depends upon the numerical coefficient (e) of the price-elasticity of demand for the monopolist's product—a higher degree of monopoly power would be obtained at a smaller value of e and a lower degree of monopoly power at a larger value of e.

This idea is supported by the formula given by Prof. A. P. Lerner (1903-82) for measuring the degree of monopoly power.

Monopoly Power

Lerner index of monopoly Power

The elasticity of demand for a firm's product is determined by three factors. These are:

(i) Elasticity of market demand,
(ii) The number of firms in the market, and
(iii) The nature of interaction among the firms

Monopoly Power

Lerner index of monopoly Power

(i) Elasticity of market demand,
The elasticity of the firm's demand and the elasticity of market demand is same

(ii) The number of firms in the market
smaller (larger) the number of firms producing the close-substitute products, the smaller (larger) would be elasticity of demand for the product of a particular firm and the larger (smaller) would be the degree of its monopoly power (which is equal to 1/e)

Monopoly Power

Lerner index of monopoly Power

(iii) The nature of interaction among the firms

If there are several firms producing the close-substitute products, called the ‘product’, then the monopoly power enjoyed by each of them would depend upon the interactions among them. If the firms compete aggressively, then they would undercut one another’s prices in order to increase their respective market shares.

Such aggressive competition among the firms may drive the prices of the products down nearly to the level of competitive price. In this case, p – MC would also be driven down and the degree of monopoly power of the firms would be relatively small.

On the other hand, the firms might decide not to compete among themselves, rather they might collude. In this case, collusion among the firms would restrict their outputs and increase their prices. So here they would have relatively high p – MC and the degree of their monopoly power would also be high

Monopoly Power

Herfiendahl Index

The Herfindahl Index (named after Orris C. Herfindahl) avoids some of the major problems involving the use of concentration ratios (CRs).

This index is denoted by HI and defined as:

$$H = \sum_{i=1}^{N} s_i^2$$

Where

S_i = market share of firm *i* in the market

N = number of firms

where n is the number of firms in the industry and S;
is the market share of the ith firm (i = 1,2, …, n).

Monopoly Power

$$\text{Herfindahl-Hirschman Index} = S_1^2 + S_2^2 + S_3^2 + \ldots + S_n^2$$

$$n - \text{firm concentration ratio} = S_1 + S_2 + S_3 + \ldots + S_n$$

S = Market Share

Company	Market share
1	33%
2	22%
3	15%
4	12%
5	8%
6	7%
7	3%
Total	**100%**

4-companies Concentration Ratio
= 33% + 22% +15% + 12% = 82%

Herfindahl-Hirschman Index
= $33\%^2 + 22\%^2 + 15\%^2 + 12\%^2 + 8\%^2 + 7\%^2 + 3\%^2$ = 20,64% or 2064

Monopoly Power

Herfiendahl Index

If there are n firms in an industry all having equal shares, the share of each firm would be 1/n
If there are n firms in an industry and one company having all shares then it would be 1

In other words, in the case of pure monopoly, the HI would be equal to 1, and it is the maximum value of HI. That is, we have obtained that the HI would lie between and 1, both ends inclusive ($1/n \leq HI \leq 1$), and a larger HI indicates a greater monopoly power

ENTREPRENEUR

‘Entrepreneur’ is a French word which means to undertake, to pursue opportunities, to fulfill needs and wants of the people through innovation and starting business

The definitions of Entrepreneur may be divided into three parts:

1. Based on Traditional Approach
2. Based on Modern Approach
3. Based on Synthesized Approach.

ENTREPRENEUR

1. Based on Traditional Approaches:

Alfred Marshall, “Entrepreneur is an individual who brings together the capital and labour required for the work, who adventures or undertakes risks, who arrange or engineers its general plan.”

J.B. Say, “The entrepreneur is a person who shifts economic resources out of the area of lower yield and into an area of higher and greater yield.”

Frank H. Knight, “The Entrepreneur is a specialised person or group of persons who bear risks and meet the uncertainty.”

ENTREPRENEUR

2. Based on Modern Approaches:

Peter F. Drucker, “Entrepreneurs create something new, something different, they change and transmute value.”

Arthur dewing, “Entrepreneur is one who transforms ideas into a profitable business.”

3. Based on Synthesised Approaches:

Joseph A. Schumpeter, “Entrepreneur is a person who foresees the opportunity and tries to exploit it by introducing a new product, a new method of production, new market, new source of raw material or new combination of factors of production.”

Frantz, “Entrepreneur is an innovator and promoter as well as generally he is more than a manager.”

FUNCTION OF ENTREPRENEUR

In general, an entrepreneur performs the following functions:

- Initiating business enterprise and resource co-ordination:
- Risk bearing or uncertainty bearing:
- Innovations:

Schumpeter theory of Innovation

Schumpeter theory of innovation

Innovation refers to all those changes, in the production process with an objective of reducing the cost of commodity so as to create gap between the existing price of the commodity and its new cost.

Innovation may take any shape like introduction of a new technique or a new plant, a change in the internal structure or organizational set up of the firm or change in the quality of raw material, a new form of energy, better method of salesmanship, etc.

Schumpeter theory of Innovation

Difference between innovation and invention

Schumpeter makes a distinction between invention and innovation. Innovation is brought about mainly for reducing the cost of production and it is cost reducing agent. Profit is the reward for this strategic role. Innovations are not possible by all entrepreneurs. Only exceptional entrepreneurs can innovate. They are capable of tapping new resources, technical knowledge and reduce the cost of production. Thus, the main motive for introducing innovation is the desire to earn profit. Profit is therefore the causes of innovation. Profits are of temporary nature.

Schumpeter theory of Innovation

Thus, innovation can be classified into two categories;

- The first category includes all those activities which reduce the overall cost of production such as the introduction of a new method or technique of production, the introduction of new machinery, innovative methods of organizing the industry, etc.
- The second category of innovation includes all such activities which increase the demand for a product. Such as the introduction of a new commodity or new quality goods, the emergence or opening of a new market, finding new sources of raw material, a new variety or a design of the product, etc

Schumpeter theory of Innovation

The pioneer who innovates earns abnormal profit for a short period. Soon other entrepreneurs, “swarm in clusters”, compete for profit in the same manner. The pioneer will make another innovation.

In a dynamic world innovation in one field may induce other innovations in related fields. The emergence of motor car industry may in turn stimulate new investments in the construction of highways, rubber tyres and petroleum products.

Profits are thus causes and effects of innovation. The interest of profit leads entrepreneur to innovate and innovation leads to profit.
Thus, profit has a tendency to appear, disappear and reappear. Profits are caused by innovation and disappear by imitation.
Innovational profit is thus, never permanent, in the opinion of Schumpeter. Therefore it is different from other incomes, such as rent, wages and interest. These are regular and permanent incomes arising under all circumstances. Profit on the other hand is a temporary surplus resulting from innovation.

Schumpeter theory of Innovation

Prof. Schumpeter also explained his views on the functions of the entrepreneur. The entrepreneur organizes the business and combines the various factors of production. But this is not his real function and this will not yield him profit. The real function of the entrepreneur is to introduce innovations in business. It is innovations which yield him profit

Schumpeter theory of Innovation

This theory has been criticized on the following grounds:

1. This theory concentrates only on innovation, which is only one of the many functions of the entrepreneur and not the only factor.
2. This theory does not consider profit as the reward for risk-taking. According to Schumpeter it is the capitalist not the entrepreneur who undertakes risk.
3. This theory has ignored the importance of uncertainty bearing which is one of the factors that determines profit.
4. This theory attributes profit only to innovation ignoring other functions of entrepreneur.
5. Monopoly profits are permanent in nature while Schumpeter says that profits (resulting due to innovation) occur temporarily.

Schumpeter theory of Innovation

This theory has been criticized on the following grounds:

6. This theory has presented a very narrow view of the functions of the entrepreneur. He not only introduces innovation but he is equally responsible for proper organisation of the business. As such profit is not merely due to innovation. It is also due to organizational work performed by the entrepreneur. As it is well known, every entrepreneur does not innovate and yet he must earn profit, if he is to stay in business.
7. It is an incomplete theory because it has failed to explain all the factors that influence profit.

We can conclude by saying that undoubtedly, ‘Innovation’ is an important element and determinant of profit.

Break Even Analysis

The break-even analysis is based on the following assumptions:
(1) The cost function and the revenue function are linear.
(2) The total cost consists of fixed cost and variable cost.
(3) The selling price of the commodity is constant.
(4) The quantity of output produced is equal to the total quantity of output sold
(5) The productivity of factors, both average and marginal productivity remain the same.
(6) The price of factors of production is constant.
(7) If the firm produces a number of goods the product mix remains the same.

Break Even Analysis

Linear Break even

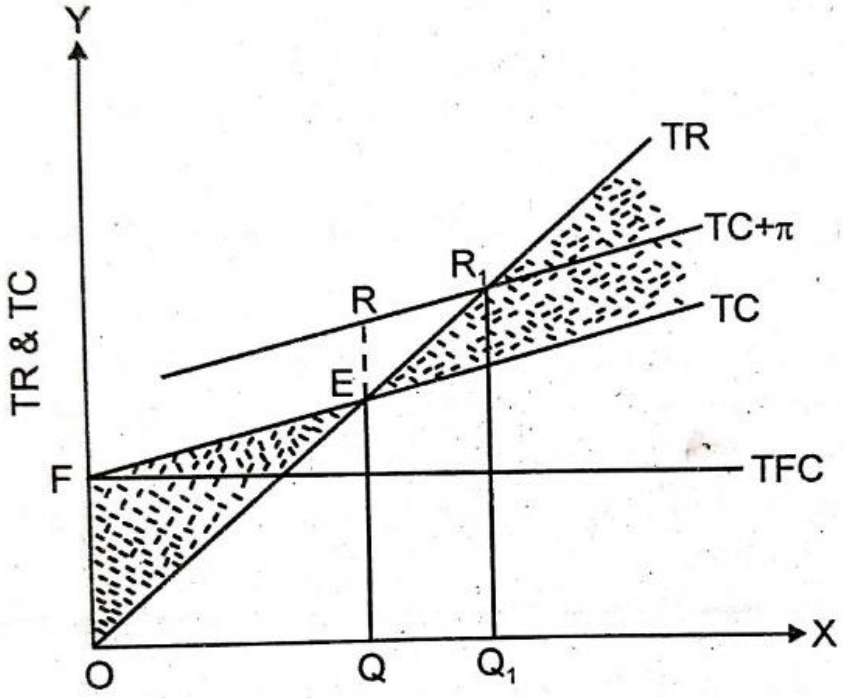


Fig. 9.1

Break even formula

Without targeted profit
QB = TFC / P – AVC

With targeted profit
Qr = TFC – π / P – AVC

Break Even Analysis

Non linear Break even

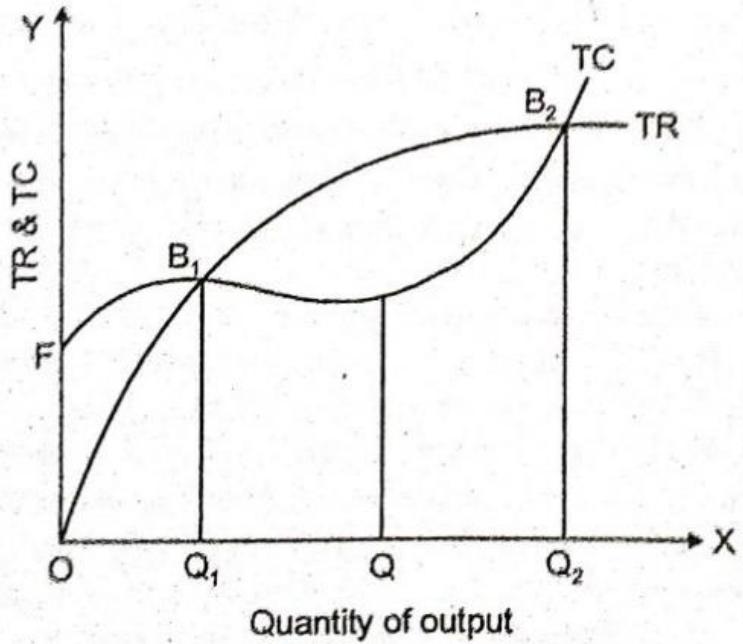


Fig. 9.2

Break even formula

Without targeted profit
QB = TFC / P – AVC

With targeted profit
Qr = TFC – π / P – AVC