Unit 1

BUSINESS FIRM AND DECISION

Meaning Of Firm:

Business refers to a unit or entity carrying a portion of the business. It is a business organisation such as a corporation limited liability company or partnership firm.

A firm is a centre of control where the decision about what to produce and how to produce are taken. A firm is understood as an organisation which converts inputs [inputs are plants, machinery, tools, investors which includes unsold finished and semi-finished goods and also raw materials [outputs are sold finished goods and services].

Goals or objectives of a business firm:(important for 5-15 marks)

1. **Economic objectives:**
   Economic objectives of business refers to the objectives of earning profit and also other objective that are necessary to be persude to achieve the profit objective which includes creation of customer, regular innovation and best possible use of available resources.
   a. **Profit Earning:**
      Profit is the life blood of business without which no business can survive in a competitive market. In fact, profit making is a primary objective for which a business unit is brought into existence.
   b. **Creation of customer:**
      A business unit cannot survive unless there are customers to buy the products and services.
   c. **Regular Innovation:**
      Innovation means changes which bring about improvement in products process of production and distribution of goods business through innovation are able to reduce cost by adopting better methods of production and also increases their sales by attracting more customers because of improved products.

d. **Optimum use of Resources:**

The amount of capital may be used to buy machinery raw materials employment and have cash to meet day to day expenses. Thus business activity requires various resources like men, materials, money and machines.

e. **Sales Maximization:**

Sales maximization is an approach to business where the company primary objective is to generate as much revenue as possible. Sales or revenue is the generation of cash flow through the sale of goods and services.

f. **Cost Maximization:**

Each firm aims at becoming cost effective in its operations measures are taken to use the scarce resources in the best possible manner. Employee the latest technique to minimise the wastage to recycle the resource to save time. Since profit is represented as the difference between revenue and cost of firm. All possible efforts are taken to minimize the cost.

Profit= Revenue-Expenses or Cost of production

2. **Social objectives:**

Social objectives are those objectives of business which are desire to be achieved for the benefits of the society.

a. **Production and supply of quality goods and services:**

The objective of business should be to produce better quality goods and supply them at the right time at right place. It is not desirable on the part of the businessmen to supply adulterated or inferior goods which cause injuries to the customers.

b. **Adoption of fair trade practices:**

In every society activities such as black marketing and over charging are considered as undesirable. Misleading advertisement give a false impression about the quality of products. All these activities earn a bad name and sometimes make the businessman liable for penalty and imprisonment under the law.

c. **Contribution to the general welfare of the society:**
Business unit should work for the general welfare and upliftment of the society. There is a possible through running of schools and colleges for better education, centres to train the people to earn their livelihood.

3. **Human objective:**
These objectives are aimed at the well being as well as fulfilment of expectations of employees and also peoples who are disables, handicapped and illiterate people. The handicapped objectives of business may thus includes,

a. **Economic well being of the employees:**
In business employees must be provided with fair remuneration and incentives for provident fund, pension and other facilities by this they feel more satisfied at work and contribute more for one business.

b. **Social and psychological satisfaction of employees:**
It is the duty of business units to provide, social and psychological satisfaction to their employee, this is possible by making the job interesting and challenging, putting the right person in the right job and reducing the monotony of work.

c. **Development of human resources:**
Employees are human beings always to grow. Their growth requires proper training as well as development. If the peoples employee can improve their skills and develop their thus it is important that business should arrange training and development programme for their employees it helps to grow better and activate participation in the organisation.

d. **Well being of social and economically backward peoples:**
Business unit being inspirable part of society helps backward classes and also peoples who are physically and mentally challenged this can be done in many ways.
For example:
Vocational training programme may be arranged to improve the earning capacity of backward peoples in the community.

4. **National objective:**

   Being an important part of the country of every business must have the objective of fulfilling national goals and aspiration. The goals of the country may be provided employment opportunity to its citizen.

   a. **Creation of employment:**

      It is an important national objective of business is to create opportunity for gainfull employment of peoples. This can be achieved by establishing new business units expanding markets and distribution channels.

   b. **Production according to national priority:**

      Business units should produce and supply goods in accordance with the priorities laid down in the plans and policies of government one of the national objective of business in our country should be increases the production and supply of essential goods at reasonable price.

   c. **Contribution to the revenue of the country:**

      The business owner should pay their taxes and dues honesty and regularly this will increases the revenue of the government.

   d. **Promotion of social justice:**

      As a responsible citizen a businessman is expected to provide equal opportunities to all persons with whom he\she deals. And he\she is also expected to provide equal opportunities to all the employees to work and progress.

   e. **Self-sufficiency and export promotion:**

      To help the country to become self relevant business unit have a added responsibility of restriction for import of goods. Every business unit should aim at increasing exports and adding to the foreign exchange reserves of the country. Business firms expected to take industries [SSI] which are backbone of our country.

5. **Organisational objectives:**

   Organisational goals are the general aim of an organization as expressed in the corporate charter, annual reports, public statements and mission statement.

a. **Business growth:**

Business growth is defined as an innovation that delivers solution to customers while adding value both internally and externally to our process as well as increasing customer value while increasing profits.

b. **Wealth maximization:**

Wealth maximization is a process that increases the current net value of the business or share holder capital gains with the objective of being in the highest strategy generally involves making sound financial investments which take into consideration any risk factors that would compromise the anticipated benefit.

c. **Staff maximization:**

Employee empowerment means giving employees the freedom to be activity involved in decision that involves there functions within the company. The goals of employee empowerment is to engage employees so that they feel valued and more motivated to perform to a high standard in order to contribute to companies overall development.

d. **Long run sustainability:**

Business firms are interested in creating long run sustainability brand name, goodwill in the economy no firm wants to lose its popularity and brand for the sake of quick profits.

6. **Global objectives:**

Earlier India at a restricted business relationship with other nations. The was a very rigid policies for imports and export of goods and services but now-a-days due to liberal economic policies, export import policies restriction on foreign investment have been largely abolished and duties on imported goods have been sustainably reduced.

a. **Raise general standard of living:**

Growth of business activities across national boundaries makes available quality goods at reasonable price all over the world. The peoples of our country get to use similar types of goods that people in other countries are using . This improves the standard of living of people.

b. **Reduce disparities among nations:**
Business should help to reduce disparities among the rice and poor nations of the world by expanding its operations. By way of capital investments in developed countries it can faster a industrial and growth.

c. **Make available global competition goods and services:**
Business should produce goods and services which are globally competitive and have huge demand in foreign markets this will improve the image of exporting countries and also earn more foreign exchange for the countries.

Profit Maximization:(important question for 5-15 marks)

Profit maximization refers to the process were by companies focus on maximising profit or getting the best possible profit in their particular kind of [profit] business.

Features of profit maximization:

1. Profit maximization is called as cashing per share maximization. It leads to maximize the business operations for profit maximization.
2. Ultimate aim of business concern is earning profit. Hence it is considered all the possible ways to increase the profitability of the business.
3. Profit is the parameter of measuring the efficiency of the business concern.
4. Its objective helps to reduce the risk of the business.
5. It leads to exploiting workers and consumers.
6. It creates immoral practices such as corruption, unfair trade practices etc.

<u>**Advantages or Arguments in favour of profit maximization:**</u>

1. **Profit is the test of economic efficiency:**
It is a measuring rod by which the economic performance of the company can be judged.
2. **Efficient allocation of funds:**
Profit leads to efficient allocation of resources tend to be directed to uses which in terms of profitability are the most desiable.

3. **Social Welfare:**

   It ensures maximum social welfare i.e maximum divident to share holders, timely payments to creditors more and mare wages and other benefits to employees and to the consumers also.

4. **Internal resources for expansion:**

   It will consume a lot of time to raise equity funds in primary market. Retained profit can be used for expansion and modernization.

5. **Reduction in risk and uncertainty:**

   Once after availing huge profit the company develops risk bearing capacity. The gross present value of a course of action is found by discounting and low capelin is benefited at the rate which reflects their timing and uncertainty.
6. **More competition or more competitive:**

   More and more profits enhances the competitive sprit thus under such conducts firms having more and more profit are considered to be more dependable and can survive in any environment.

Arguments against profit maximization or disadvantage:

a. It is argued that profit maximization assumes perfect completion and in the face of imperfect modern market. It cannot be a important objective of the firm.
b. It is also feared that profit maximization behaviour in a market economy m ay tend to produce goods and services that are waste full and unnecessary from the societies point of view.
c. Profit cannot be ascertained in advance to express the profitability of returns as further is uncertain.
d. The executive or the decision maker may not have enough confidence in the estimates of future returns.
e. Firms producing same goods and services differ sustainably in terms of technology, cost and capital. In view of such condition it is difficult to have a truly competitive price system and thus it is doubt full if the profit maximizing behaviour will lead to the optimum social welfare.

Wealth Maximization:(important question for 5-15 marks)

Wealth Maximization is a process that increases the net current value of business or share holder capital gain with the objective of bringing in the highest possible return. The wealth maximization strategy generally involves making sound financial investment decision which takes into consideration any risk factor that would compromise or out weight the anticipated benefits.

Features:

1. **Protection of interest of shareholders:**

Shareholders interest is protected by increased market value of profit.

2. **Security to financial lenders:**
   It provides security to short term and long term financial lenders who supply funds to the business enterprise. Short term lenders are interest in the firm liquidity position whereas long term lenders enjoy over shareholders at the time of returns of funds besides getting fixed rate of interest.
3. **Protection of interest of employee's:**
   Employee's contribution is a primary consideration in raising the wealth of an enterprise their productivity and efficiency ultimately leads to fulfilling companies' objective and also the employee's.
4. **Survival management:**
   Management is a representative body of shareholders when shareholders interest is protected there may be not wishing to change the management and hence it can survive for a longer period of time.
5. **Interest of society:**
   When all the available productive resource is put to optimum and efficient use economic interest of the society is survived.

<u>Favourable arguments or advantages of wealth maximization:</u>

a. Wealth maximization is a clear term. Hence the present value of cash flow in considered. The net effect of investment and benefit can be measured clearly.

b. Wealth maximization is superior to profit maximization because the main aim of the business concern under this concept is to provide improve the value or wealth of the share holders.
c. Wealth maximization considers the comparison of the value to cost associated with the business concern.
d. Wealth maximization considers both time and risk of the business concern.
e. It provides efficient allocation of the resources.
f. It ensures the economic interest of the society.

Unfavourable arguments or disadvantages of wealth maximization:

1. Wealth maximization is also nothing but profit maximization because the ultimate aim of the wealth maximization objective is to maximize the profit.
2. It creates ownership management controversy.
3. Management alone also enjoys certain benefits.
4. Wealth maximization can be activated only with the help of the profitability position of the business concern.

Difference between Profit maximization and Wealth maximization:(5 marks)

	Profit Maximasation	**Wealth Maximization**
1.	Profit cannot be ascertain wealth in advance to express the probability of returns. The term profit as no clear meaning .	It represents the value of benefits and cost of investment.
2.	The executive or the decision maker may not have enough confidence of future returns.	It is argued that a firm's goal cannot be maximising profit but to ascertain certain level of share of market.
3.	The risk variations and related capitalisation rate is not considered in the concept of profit maximisation.	It is considered there should be balance between expected returns and risk.
4.	The goal of profit maximisation is considered to be narrow outlook.	The goal of wealth maximisation is considered to be a broad outlook.

5.	It ignores the interest of the community	It's objective is to enhance the share holders wealth.
6.	The profit maximisation ignores the time value of money	It fully considers time value factor and also cash in flow.

Time Value of Money(TVM):

Time value of money is the idea that money available at the present time is worth more than the same amount in the future due to its potential earning capacity.

`TVM is an important concept in financial management. It can be used to compare investment alternatives and to solve problems involving loans. Mortgage(pledge), Lease, Savings and others.

Calculation of Time Value of Money:

1. Interest Rate:

Interest is a charge for borrowing money usually stated as a percentage of the borrowed over a specific period of time.

a. **Simple Interest:** is computed only on the original amount borrowed. It is return on that principal for one time period.

b. **Compound Interest:** is calculated for each period on the original amount borrowed plus all unpaid interest accumulated to that date.

2. No. of periods:

Periods are evenly spaced intervals of time. They are intentionally not stated in years since each interval must correspond to a compounding periods for a single amount or a period for an annuity.

3. Payments: Payments are a service of equal evenly placed cash flow in TVM applications, Payments must represent all outflows and all inflows.

4. **Present Value:**

It is the amount today that is equivalent to a future payment or service of payment. That has been discounted by an appropriate interest rate. Since, money as time values the present value of a promised future amount.

5. **Future value:**

It is the amount of value that an investment with a fixed compound interest rate will grow to by some future day. Money as time value the future value would be greater than the present value. The difference between the two depends on the number of compounding periods involved and the interest rate.

Explain steps involved in decision making process ? (05 to 15 marks)

Decision Making

It is a process of selecting the best alternative among many alternatives that are open to the management.

Definition:

According to TVE and Newport, "Decision making involve the selection of a source of action among two or more possible alternatives in order to arrive at a solution for a given problem".

The Oxford Dictionary defines the term decision making as the action of carrying out or carrying into effect.

Characteristics of Business Decision.

1. Decision making Implies Choice.
2. Continuous activity or process.
3. Mental/ Intellectual activity.
4. Based on reliable information or feedback.
5. Goal oriented process.
6. Means and not an end.
7. Time consuming activity.
8. Need effective communication.

1. **Decision making Implies Choice:**

Decision Making is choosing from among two or more alternative course of action. Thus it is the process of selection of one solution out of many available solutions.

2. **Continuous activity or process:**

Decision making is a continuous and dynamic process. Manager have to take decision on various policies and administration matters. It is never ending activity in business management.

3**. Mental/ Intellectual activity:**

Decision making is mental as well as intellectual activity or process and requires knowledge, skills, experience and maturity on the part of decision maker. It is essentially a human activity.

4. **Based on reliable information or feedback:**

Good decisions are always based on reliable information. The quality of decision making at all the levels of organisation can be improved with support of an effective and efficient management information system.

5. Goal oriented process:

Decision making aims at providing a solution to a given problem or difficulty before a business enterprise. It is a goal oriented process and provides solution to problem faced by a business unit.

6. **Means and not an end:**

It is a means for solving a problem for achieving for target or objective and no the end in itself.

7. Time consuming activity.

Decision making is a time consuming process or activity are various activity and careful consideration before taking final decision for decision making various types are required to be compared this makes decision making is a time consuming activities.

8. Need effective communication:

Decision taken needs to be communicated to all concern parties for suitable follow up actions.

Steps involved in decision making (or) Process of decision making:

decision making involved the number of steps which need to be taken a logical manner. Ducker recommended the scientific method of decision making , according to him, involves the following six steps .

Step -1 : Identifying / defining the managerial problem

⇓

Step - 2: Analyzing the problem

⇓

Step – 3 : Developing alternative solutions

⇓

Step – 4 : selecting the best solution out of available alternative

⇓

Step -5: converting the decision into action

⇓

Step-6: ensuring feedback for follow –up

1. Defining or Identifying the problem

2. Analysing the problem

3. Collecting relevant data

4. Developing alternative solution

5. Selecting the best solution

6. Converting decision into action

7. Ensuring feedback

1. Defining or Identifying the problem:

Identification of a real problem before a business enterprise is the first step in the process of decision making. Well solved here distinction should be made between the problem and the symptoms which make could read issuer in brief the manager should such the critical factors at work it is the point at which the choice applies.

2. Analysing the problem:

The next step in the decision making process is to analyse the problem in depth this is necessary to clarify the problems in order to know who must take the decision utmost be informed about the decision taken. Here the following four factors should be kept in mind.

- Futurity of the decision :
- The scope and its impact :
- Uniqueness of the decision :
- Number of qualitative considerations involved :

3. Collecting relevant data:

After defining the problem and analysis we must collect the relevant data all available information should be utilize fully for analysis the problem.

4. Developing alternative solution:

After the problem as been defined, diagnosed on the basis of relevant information, the manager has to determine available alternative course of action that could be used to solve the problem at hand. Only realistic alternatives should be considered if necessary group participation techniques to be used while developing alternative solutions.

5. Selecting the best solution:

This process is to select the best alternatives that seem to be most rational for solving the problem. The alternatives thus selected must be communicated to those who are likely to be affected by it acceptance of the decision by group members is always desirable and useful for its effective implementation.

6. Converting decision into action:

After the selection of the best decision it should be converted into effective action. The subordinate should be taken in confidence and there should be convey correctness of the decision there after the manager have to take follow up steps for the execution of decision making.

7. Ensuring feedback:

The manager has to make the arrangements to ensure feedback for the continues testing, actual development against the expectations. Feedback is necessary to decide that whether the decision already taken should be continued or to be modified for the purpose of solving the problem.

Types of Business Decision:

1. Programmed decision.
2. Non-programmed decision.
3. Strategic decision.
4. Tactical decision.
5. Operational Decision.

1. Programmed decision:

These are the decisions that have made so many times in the past that managers have developed rules or guidelines to be applied when certain situation are expected to occur. Programmed decision making are a routine that you make every time so that the organisation run smooth. most of the decisions are related to the daily activities. These are the standard decision which always follows same routine.

2. Non-programmed decision:

These are made in response to unusual opportunities and threats. It is a non-routine decision making. each decision is not quite the same as any previous decision.

3. Strategic decision:

These are the decisions that are concerned with whole environment in which the firm operates. the entire resources and the people who form the company and interface between the two. Strategic decisions are usually made at the top level of the company the details are known only by few people. these will affect the long term direction of the business.

4. Tactical decision:

These are medium term decisions about how to implement strategy they're made by the mid level managers of the company.

5. Operational Decision:

These are short term decision about how to implement the tactics. It is also called administrative decisions. these are usually made by the low- level supervisors or even by the ordinary employees.

Difference between Strategic, Tactical and Operational decision:

Strategic Decision	Tactical Decision	Operational Decision
Strategic decision are long term	Tactical Decision are taken daily	Operational decision are not frequently taken.
These are considered where the future planning is concerned	These are short term based decision	These are medium period based decision
These are taken in accordance with organisational mission and vision	These are taken according to strategic and operational decision	These are taken in accordance with strategic and administrative decision
These deals with organisational goals	These are in welfare of employees working in an organisation	These are related to product and factory growth
These are taken by top level managers	These are taken by middle level managers	These are taken by operational level managers

Game Thoery:

Meaning:

Game Theory is a set of concept aimed at decision making in situations of competition and conflicts as well as co-operation and interdependence under specific rules.

A strategic plan or strategic game represents a situation where two or more participants are faced will choice of action by which each may gain or lose depending on what others choose to do or not to do.

Assumptions of Game theory:

1. Number of participants or competitors is finite.
2. The players act rationally and intelligently.
3. Each player as available to him a finite set of possible course of action.
4. There is a conflict of interest between the participants.
5. Every game must have an outcome
6. The rules governing the choose are specified and known to the players.

Basic terminology of game theory:

1. Strategy:

Strategy is defined as a complete set of plan of action specifying what the players will do under every possible future contingency that might occur during the play of the game.

a. Pure Strategy:

A strategy is called pure strategy if one knows in advance that it is certain to be adopted irrespective of the strategy the other players might choose.

b. Mixed Strategy: A mixed strategy represents a combination of two or more strategies that are selected one at a time, according to predetermined probabilities.

2. Optimum strategy:

A course of action or play puts the player in the most preferred position irrespective of the strategy of his competitor is called an optimum strategy.

3. Pay-off :

Pay-off is the outcome of playing the game.

4. Value of the game:

It is the expected pay off of play when all the players of the game followed there optimum strategy. The game is called fair if the value of the game is ‘zero’ and unfair if it is ‘non-zero’.

5. Pay-off matrix:

A pay-off matrix is a table showing the amount received by the player named at the left hand side after all possible playes of the game. A pay off matrix may **be constructed only by two persons game. If the player ‘A’ as ‘m’ strategies** and the player ‘B’ as ‘n’ strategies then, the pay-off matrix will be of the order m(x)n.

6. Two Persons Zero Sum Game:

In a Two Person Zero Sum Game we have two players A and B. If we look from A point of view, we assume that A wishes to maximise his gain while B would like to minimize his loss so, whenever ‘A’ adopts a strategy to maximize his gains ‘B’ would adopt a counter strategy with the objective of minimizing ‘A’s gain.

7. Saddle Point:

A saddle point defined as a position in the pay-off matrix where the maximum of there row maximas co-insides with the minimum of the column maxima.

Important questions from this unit:

- What is decision making? 2 m
- State 2 assumptions of the game theory ? 2m
- What is economic objective?2m
- Give the meaning of strategic decision ?2m

For 5 and 15 marks:

- Goals and objectives of business firms ?
- Profit maximization V/S wealth maximization ?
- Steps involved in decision making process?
- Problems on game theory ?

Unit -02 : Market forces (demand and supply)

Introduction:

Consumer demand is the basis for the all the production activities. Necessity of the product is the mother all the innovation so on that basis we can say that need or the demand for the product is the mother for all the innovation or production.

Meaning of demand:

Demand is the amount of particular economic goods or services that a consumer or group of consumer will want to purchase at a given price at a particular time.

Demand = Desire to buy + ability to pay + willingness to pay

Definition

According to Melvin and boyes "demand is a relationship between two variables, price and quantity demanded, with all other factors that could affect demand being held constant".

According to Ferguson," Demand refers to the quantities of commodity that the consumer are able to buy at each possible price during a given period of time , other thing being equal".

Determinants of demand or factors influencing demand:

the factors which influences the demand or factors which affects the demands for the commodity can be study in two ways.

- Determinants of individual demand
- Determinants of market demand

1.Determinants of individual demand: the factor which going to affect the demand of the individual customer is called individual demand determinants.

- **Price of the commodity :** price is a basic factor for the commodity . a consumer usually decides to buy the commodity on the basis of the more quantity is demanded at low prices and less is purchased at the high prices. Where the demand is a dependent factor and price is a independent factor .
- **Income of the consumer :** buyers income determines his / her purchasing capacity .with the increase in income of buyer the one can buy more goods. Rich consumer demands more goods than the poor customers . demands for the luxurious and expensive goods related to the income .
- **Tastes, habits and preferences :** demands for the goods depends on the persons tastes, habits and preferences .demands for the products like ice cream, chocolates depends on the individual tastes . demands for the tea, tobacco and cigarettes is depends on the habits of the consumers , the demands for the many goods depends on the preferences of the customers.

  Examples: consumer prefers diesel car rather than petrol car because of fuel prices.
- **Complementary and substitutes products :** complementary goods are those , which are required to fulfil the other demands these goods are consumed together .for example pen and refills , car and petrol or diesels , the demands for the car increase the price of the diesels also increases.
- **Consumers expectations :** a consumers expectations about the future changes in the prices of a commodity also affects . if the consumer think that the prices of the commodity decreases in the future the demands for the commodity get decreases .if the commodity prices increases in future the demands for the goods will get increases.
- **Advertisement effects:** demand s for the goods will generated on the basis of the advertisement now a days . consumers will prefers to buy the goods on the basis of the advertisements .consumers will going to make purchases . example : soaps , cosmetics etc.

2. Determinants of the market demand : the factor which affect demands of a group of the customers is called market demand .

- **Scale of preferences :** the market demand for a product is greatly influenced by the scale of preferences of the large group of buyers in general .
  Foe example: when the large number of the customer demand for the vegetarian foods the non vegetarian food demand will tend to be decreases .
- **Price of the product :** if the commodity prices is low the market demand for the product is very high if the prices of the products is high the demands for the product get decrease . so the market demand also act on the basis of the prices of the product .
- **General standards of living and spending habit of the people :** if the consumer adopted the higher standard of living they are ready to buy the commodity at the higher prices. the cost of the product is not a matter for them like low income group people. They are always ready to spend more for the commodity or products.
- **Numbers of buyers in the market and growth of population :** the size of the market demand for a product is depends upon the number of buyers in the market . a large number of buyers will usually constitute a large demands and vice versa . if a population increases over from time to time. The demand for the product also get increases .
- **Age structure and sex ratio of the population :** the age factor also one of the major factor while analysing the demand . if the population of the country is more of children , then demands for the toys, children belonging also will be more . like this if the population having the more female than the male , then the demand for the female product will be more .
- **Future expectations :** if the consumers think that the prices for the commodity will going to increase in the future then the market demands for the product at present will going increase .

- **Fashion :** market demand for the product is affect more because of the fashion , if any product trending in the market then all are thinking to buy that product at what ever be the prices , like if the product is in out of fashion the consumer not going to purchase at the low prices also.

Law of demand :

Meaning: law of demand state that " other things being constant , when the prices of a commodity rises , the demand for that commodity falls and when the price of a commodity falls then the demand for that commodity rises".

" the higher the prices of a commodity , the smaller is the quantity demanded and lower the prices larger the quantity demanded."

Definition :

According to samuelson " law of demand states that people will buy more at low prices and buy less at the higher prices , other things remaining same ".

According to alfered marshall, " the greater the amount to sold , the smaller must be the price at which it is offered in order that it may find purchasers; or in other words, the amount demanded increases with a fall in price, and diminishes with a rise in price ".

Demand function : D= f(p) , demand represent or expressed functional relationship with price.

Demand scheduled : demand scheduled is a tabular statement which representation the price and quantity relationship is called demand scheduled.

Price (in rupees)	Quantity demanded
6	10
5	20
4	30
3	40
2	50
1	60

Demand curve:

Demand curve means its a graphical representation of demand scheduled is called as demand curve .the demand curve always slopes downwards from left to right . this negative slope of demand curve indicate the opposite relationship between price and quantity demanded .

in the case of the proportion relationship between price and quantity demanded the demand would be a straight line , as shown in the above diagram.

Assumptions for law of demand :

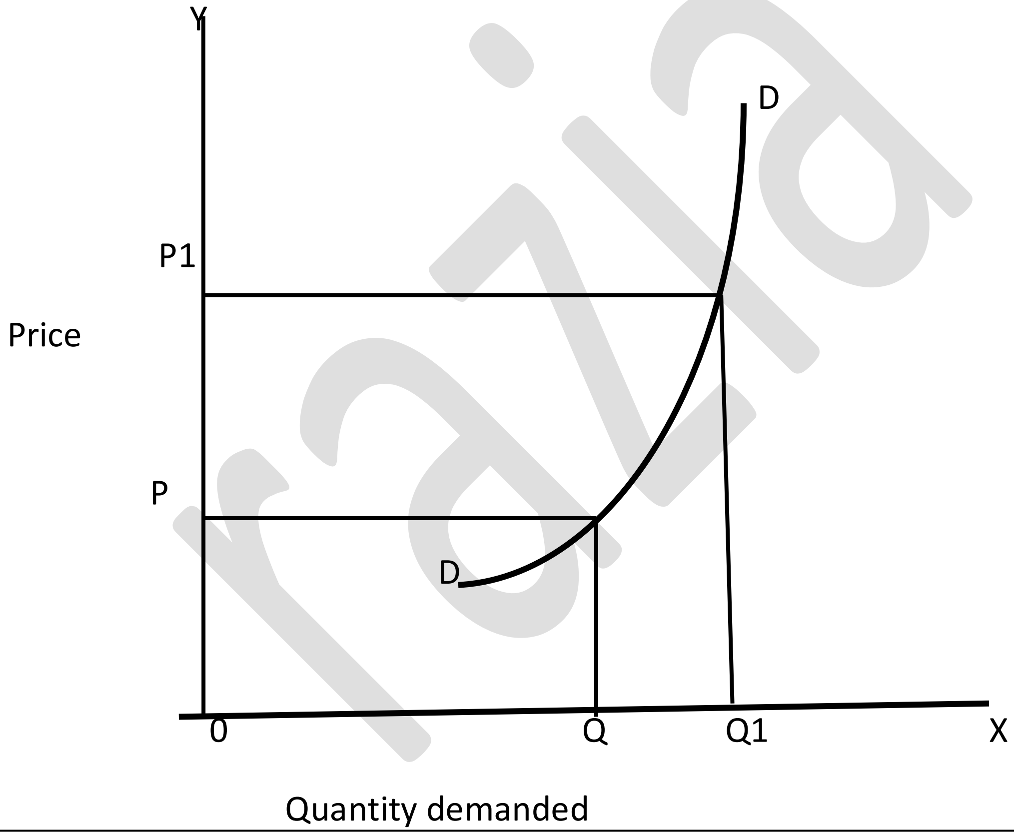
Law of demand will going to apply only if this conditions will apply .

i. No changes in income of the company
ii. No changes in tastes and preferences of customer
iii. No future expectations
iv. No changes in populations
v. No changes in fashion
vi. No change in government policies .

Exceptions to the law of demand :(very important for 5 and 15 marks)

Law of demand that less quantity is demanded at the higher prices and more quantity will demanded at the low prices . this may not always going to work or the law of demand is not going to work always in every situations . in some cases the law of demand is not going to work they are as follows .

Under exceptions to the law of demand , the demand curve slops downwards from left to right as shown below in the diagram .



Here we can see that consumer demanded more quantity (q1) at the high price (p1) and demanded less (OQ) at the lesser prices (OP).

Exceptions to law of demand are listed as below :

- **Inferior goods/ Giffen goods:** Some special varieties of inferior (poor) goods are termed as giffen goods. Cheaper varieties of goods like low priced rice, low priced bread, etc. are some examples of Giffen goods.This exception was pointed out by Robert Giffen who observed that when the price of bread increased, the low paid British workers purchased lesser quantity of bread, which is against the law of demand. Thus, in case of Giffen goods, there is indirect relationship between price and quantity demanded.

- **Goods having prestige value :** This exception is associated with the name of the economist, T.Velben.

Few goods like diamond can be purchased only by rich people. The prices of these goods are so high that they are beyond the capacity of common people.The higher the price of the diamond the higher the prestige value of it.In this case, a consumer will buy less of the diamonds at a low price because with the fall in price, its prestige value goes down. On the other hand, **when price of diamonds increase, the prestige value goes up and therefore, the quantity demanded of it will increase.**

- **Price expectation or future predictions:**

When the consumer expects that the price of the commodity is going to fall in the near future, they do not buy more even if the price is lower.

On the other hand, when they expect further rise in price of the commodity, they will buy more even if the price is higher. Both of these conditions are against the law of demand.

- **Fear of shortage**

When people feel that a commodity is going to be scarce in the near future, they buy more of it even if there is a current rise in price.

For example: If the people feel that there will be shortage of L.P.G. gas in the near future, they will buy more of it, even if the price is high.

- **Change in income :** The demand for goods and services is also affected by change in income of the consumers. If the consumers' income increases, they will demand more goods or services even at a higher price.

On the other hand, they will demand less quantity of goods or services even at lower price if there is decrease in their income. It is against the law of demand.

- **Change in fashion:** The law of demand is not applicable when the goods are considered to be out of fashion. If the commodity goes out of fashion, people do not buy more even if the price falls.

For example: People do not purchase old fashioned shirts and pants nowadays even though they've become cheap. Similarly, people buy fashionable goods in spite of price rise.

- **Basic necessities of life or conspicuous necessities :** In case of basic necessities of life such as salt, rice, medicine, etc. The law of demand is not applicable as the demand for such necessary goods does not change with the rise or fall in price.
- **Brand loyalty :** if the consumers are loyal to a particular brand, they will continue to buy the even with the rises in price of the particular brand .
  Example: particular brand of shampoo, toothpaste etc.

- **Ignorance :** ignorance in the minds of customer regarding the prices moving in the market makes consumers to buy more even at the high prices and it is observed that the consumer will prefer high priced product because they assumes that high prices means high quality , low prices means low quality .this kind of ignorance , law of demand will not applicable .
- **Unavoidable circumstances :** in some cases , we cannot go to buy the prices , if the purchases the product is inevitable , we have to purchase it , even at high prices .
  Example: medicines .

Elasticity of demand:

Law of demand states that if price of commodity increases, quantity demanded will fall and if price of commodity fall quantity demanded will increases. Law of demand indicates only direction of change of quantity demanded in response to change in price.

But elasticity of demand measures with how much? or to what extent? in the quantity demanded will change in response to change in price.

Meaning and definition of elasticity of demand :

"Elasticity" is a *standard measure* of the degree of responsiveness (or sensitivity) of one variable to changes in another variable.

It measures the degree of responsiveness of *demand* for a *commodity* to a given change in any of the *independent variables* that influence demand for that commodity, *such as price of the commodity, price of the* other commodities, *income, taste, preferences of the consumer and other factors.*

According to Marshall, "the elasticity or responsiveness of demand in a market is great or small accordingly as the demand changes (rises or fall) much or little for a given change (rises or fall) in prices".

Types of elasticity of demand:

1. Price elasticity,
2. Income elasticity,
3. Cross elasticity
4. Advertising (or promotional) elasticity.

1. Price elasticity of demand : Price is most important among all the independent variables that ***affect the demand*** for ***any commodity***.

The price elasticity of demand may be defined as the ratio of the relative change in demand and price variable.

$$\textbf{PED} = \frac{\textbf{\% change in quantity demanded}}{\textbf{\% change in its prices}}$$

Different types of price elasticity of demand or degree of price elasticity of demand :

- *Perfectly elastic*
- *Perfectly inelastic*
- *Relatively elastic*
- *Relatively inelastic*
- *Unitary*

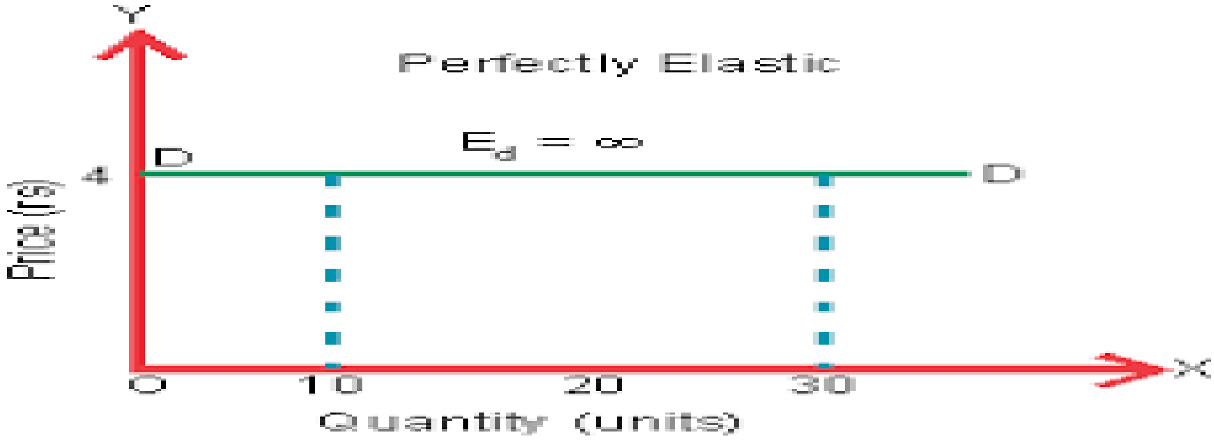
- **Perfectly elastic of demand** : It is situation where a *little change in price* will cause *infinite change* in demand. A perfectly elastic demand curve is represented by a straight horizontal line and shows that the market demand for a product is *directly tied to the price*.

Perfectly Elastic Demand: A perfectly elastic demand refers to a situation when *demand is infinite* at the fundamental price.

It is a situation where the *slightest rise in price* causes the quantity demanded of the *commodity to fall to zero*.

Example: anything which have *large no of substitutes*. Comforts and luxuries like TV, Cell phones, ACs.

In Fig, DD is the perfectly elastic demand curve which is parallel to OX-axis. In this case, elasticity of demand is infinite or $E_d = \infty$.

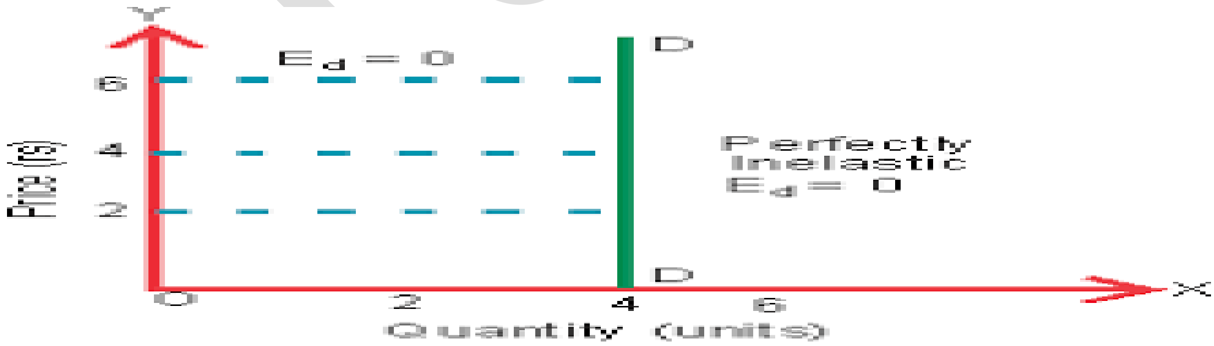


▶ **Perfect inelasticity of demand :** It is situation in which a *change in price product no change in quantity demanded*.

Perfectly Inelastic Demand: A perfectly inelastic demand refers to a situation when change in price has *no effect on quantity demanded* i.e., demand remains unchanged.

For example: Necessities like salt, food grains, vegetables, milk, medicine**.**

In Fig.5, DD is the perfectly inelastic demand curve which is parallel to OY-axis. Elasticity of demand is zero or E_d = 0.

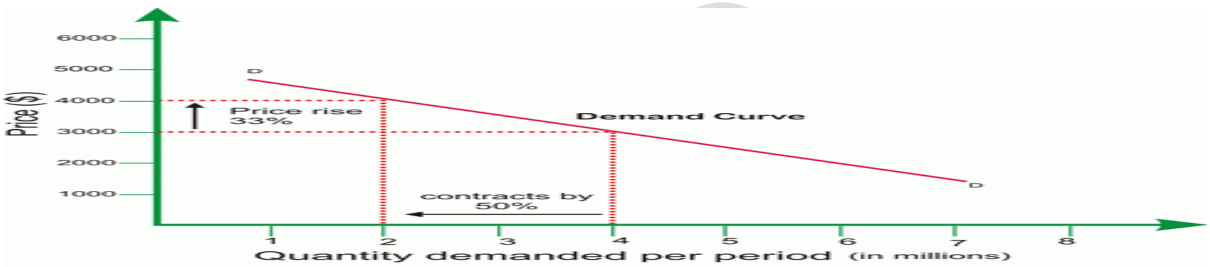


▶ **Relatively elasticity of demand :** It is situation when <u>*percentage change in quantity demanded*</u> is greater than percentage change in price.

Relatively elastic means that relatively small changes in price cause relatively large changes in quantity.

For example, if the price of a product increases by 20% and the demand of the product decreases by 25%, then the demand would be relatively elastic**.**

In other words, *quantity* is very responsive to price. More specifically, the percentage change in quantity is greater than the percentage change in price.

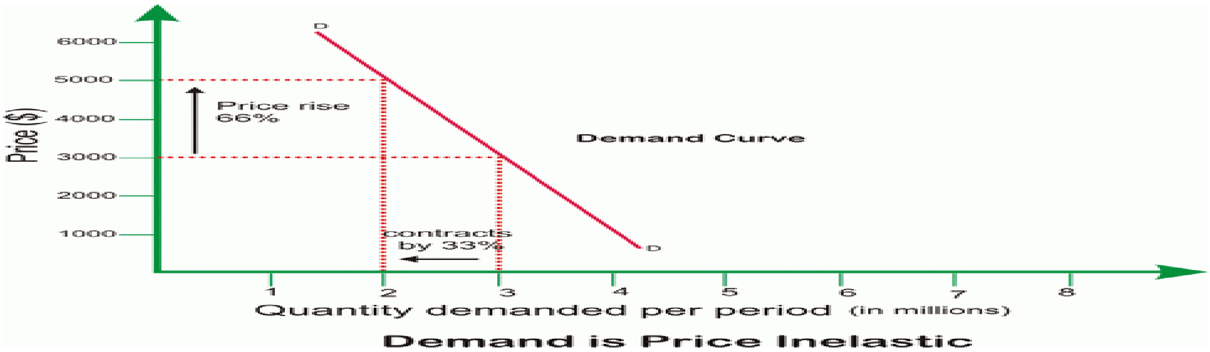


Demand is Price Elastic

- **Relatively inelasticity of demand:**It is a situation where percentage change in quantity demanded is less than price.

Relatively inelastic means that relatively large changes in price cause relatively small changes in quantity.

In other words, quantity is not very responsive to price. More specifically, the percentage change in quantity is less than the percentage change in price**.**

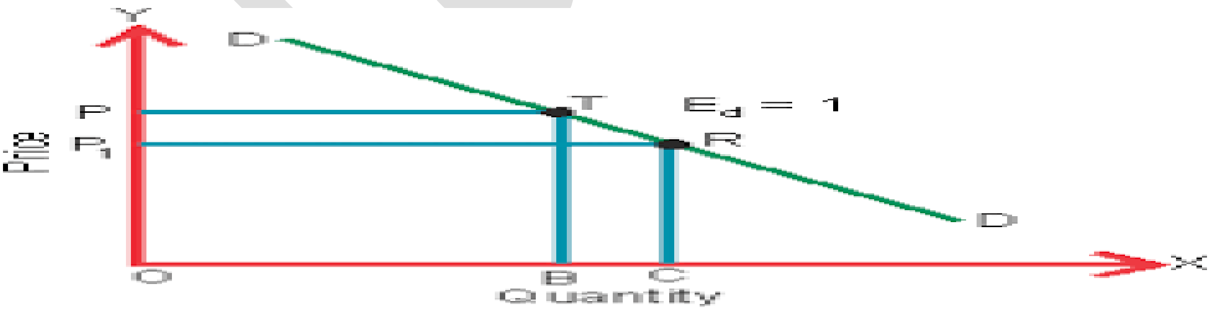


- **Unitary elasticity of demand :** It is situation when *percentage change in price is same as quantity demanded*.

When change in quantity demanded in response to change in price of the commodity is such that total expenditure on the commodity *remains constant implying a situation of unitary elastic demand.*

Here, elasticity of demand is unity or E_d = 1. Fig. shows the situation of unitary elastic.

The price of digital cameras increases by 10%, the quantity of digital cameras demanded decreases by 10%. The price elasticity of demand is (unitary elastic demand).



2. **Income elasticity of demand:** The income elasticity is defined as a ratio percentage or proportional *change in the quantity demanded* to the percentage or proportional *change in income*.

For example, the demand for a product *increases with increase in consumer s income and vice versa*, while keeping other factors of demand at constant.

The *degree of responsiveness* of demand with respect to change in consumer s income is called income elasticity of demand.

$$\text{Income Elasticity} = \frac{\textbf{percentage change in quantity demanded}}{\textbf{percentage change in income}}$$

3. Cross elasticity of demand: the cross elasticity demand refers to the degree of responsiveness of demand for a commodity to a given change in the prices of some related commodity (of substitute or complementary products).

$$\text{Cross elasticity of demand} = \frac{\textbf{percentage change in quantity demanded for commodity A}}{\textbf{Percentage change in the price of commodity B}}$$

4. Advertising or promotional elasticity of demand: advertising campaigns effectiveness in generating new sales. It calculated by dividing the percentage change in the quantity demanded by the percentage change in advertising expenditure.

$$\text{Advertising elasticity of demand} = \frac{\textbf{percentage change in quantity demanded or sales}}{\textbf{Percentage change in advertising expenditure}}$$

Determinants of price elasticity of demand:

The price elasticity of demand is not the same for all commodities. It may be or low depending upon number of factors. These factors which influence price elasticity of demand, in brief, are as under.

- **Nature of commodities:** in developing countries of the world. The per capital income people is generally low. They spend a greater amount of their income on the purchase of the necessary of the life such as wheat, milk, cloth etc. they have to purchase these commodities what ever be their prices.
  Example: if the price of the burger fall demand for it will increases.

- **Availability of substitute:** if goods have greater number of close substitute available market, the demand for the goods will greatly elasticity .
  Example : if the price of coca cola rises in the market the consumer will switch over to the consumption of Pepsi cola .

- **Proportion of income spent on the goods :** the proportion of income spent on the goods is very small , the demand for such goods will become inelastic.
  For example: if the prices of the match boxes or salt rises by 50 % it will not effect on the consumer demand for those product .

- **Time :** the period of time plays a very important role in shaping the demand curve . In the short run , when the prices of goods vary it would not impact on the consumer demand for their product . in case of long run if the price's of the commodity increases the demand for that will effect more because consumer will switch to other product if the prices of commodity will high during longer period of time .

- **Number of uses of a goods:** if the product user is more the demand for the product will be more elastic . In the same way the number of user is countable or less demand for that product will not much effected . With the changes in prices .

- **Addiction or habits** : if the consumer is addicted for a product the variation in the prices of the product will not affect the consumption patter of the consumer .
  Example : cigarette

- **Durability :** durable goods have higher elasticity than non durable goods, because the durable goods satisfy the consumer over a period of time .

Methods of forecasting price elasticity of demand:

Various methods of measuring price elasticity of demand are as follow:

1. Total outlay or total expenditure method
2. Point method
3. ARC method
4. Proportional method

Forecasting: forecasting means expectation about the future course of developments. The future is uncertain , but not entirely so. Hence , one can predict the future event.

Meaning of demand forecasting :

Demand forecasting refers to the expectation about the future course of the market demand for the product is called a demand forecasting .

Demand forecasting refers to **" an estimate of sales during a specified future period based on a proposed marketing plan and a asset of particular uncontrollable and competitive forces ".**

Level of demand forecasting:

- Micro level forecasting
- Industry level forecasting
- Macro level forecasting

Micro level forecasting: it refers to the demand forecasting of a individual business firm for estimating demand for its product.

Industry level forecasting: it refers to the demand estimation for the product of the industry as a whole.

Macro level forecasting: it refers to the aggregate demand for the industrial output by the nation as a whole.

Method of demand forecasting:

Demand forecasting is broadly classified into two types , such as survey method , statistical method.

1.Survey method: the survey method of gathering data by asking questions to the people who are thought to have desired information . a formal list of questionnaire is prepared. The respondents are asked questions on their demographical interest opinion.

Different types of survey method :

- Expert opinion method
- Consumer survey method
- Market controlled experiment method
- Delphi method
- Consumer clinic method .

- **Expert opinion method:** under this method *the sales representatives have to report their head office about the probable demand for their product in their territories .* on the other hand the company can collect information also from the wholesaler and retailers. On the basis of the expert opinion aggregate the firm can better estimate their demand

- **Consumer survey method:** in this method , customers are directly contacted in order to find out their intention to buy commodities in the near future . this method is also known as opinion survey method.

Intention of the buyer is recorded through the personal interviews, mail or post survey and telephone interviews. Questionnaires are prepared to find out buyers intentions.

This method is again classified into different types.

- **Complete enumeration method**
- **Sample survey method**
- **The end use method**

- **Complete enumeration method :** according to this method , all the potential consumers of the product are contacted through questionnaire and probable demand is forecasted . this method is less costly .

- **Sample survey method:** under this method, a sample of potential customers is selected from the market , they are interviewed with a questionnaire . on the basis of response from questionnaire and by adding the quantities mentioned in the questionnaire the probable demand for the product may be predicted .

- **The end use method:** this method is advocated for forecasting demand for inputs by the industrial sector. In this method information is obtained from the final user like individual industries , final consumers, exporter, importer etc. The factor like technological and structural changes which influence the demand are taken into consideration in estimating demand.

- **Market controlled experiment method :** under this method main determinants of demand of a product like price, advertising , packaging and quality are identified . here the market divisions must be homogeneous with regards to the income, population, caste , religion , sex, age ,tastes etc.

- **Delphi method:** apart from company salesman and consumers, other like sales manager, distributors, production manager, marketing manager and outsider experts opinion are also considered . then future demand is estimated through proper discussion with these experts.

- **Consumer clinic method:** an artificial consumer markets are created and consumers are asked to spend some time in those clinics. The responses of the consumers to the price changes are observed and this helps to take necessary price decisions.

1. **Statistical methods of demand forecasting :**

In this method some statistical and mathematical techniques are employed to predict the future demand .this method is useful for long run forecasting for the existing products the different statistical methods are briefly explained below .

a) Trend projection method
b) Economic indicators
c) Other statistical method

A) **Trend projection method:** this method refers to the projection of the sales of a product for the future on the basis of the past demand . by using time series it is possible to project the trend of sales in future. This method include least square method and moving average method .

B) **Economic indicators method:** an economic indicator is a statistic about the economy. The economic indicators allow analysis of economic performance and predictions of future performance. One application of economic indicators is the study of business cycles.

An economic indicator is of three types such as:

- Leading indicators
- Lagging indicators
- Coincident indicator

- **Leading indicators:** leading indicators are those indicators that are usually change before the economy as a whole changes. They are useful as short term predictors of the economy. Stock market returns , index of consumer expectations, money supply are the example of this .

- **Lagging indicators:** lagging indicators are indicators that usually change after the economy as a whole does. Unemployment rates is an example of lagging indicators .
- **Coincident indicators:** coincident indicators change at approximately the same as the whole economy changes. Gross domestic product , industrial production , personal income etc. Are the examples of this.

2. **Other statistical methods :** this includes
   - **Exponential smoothing:** in this method, more recent data are given more weight age. This is based on the argument that recent information has more impact on the future demand

- **Index numbers:** the index numbers offers a device to measure changes in a group of related variables over a period of time. This is expressed in terms of percentages.

- **Correlation and regression:** correlation refers to study of inter – dependence between the variables. Regression not only studies the relationship but it also helps for future prediction.

- **Simultaneous equation method:** this method is normally used in macro – level forecasting for the economy as the whole.

Factors Affecting Demand Forecasting

Demand is never constant and fluctuates with the change in certain factors related to the commodity and the market in which the business operates. With the changing demand, it's forecasting also varies.

Following are some of the factors which influence the demand forecasting of a commodity:

- **Price of Goods:** Demand estimation is highly dependant on the price of goods or services. The pricing policy and fluctuation in the present price can give an idea of change in demand for that particular commodity.

- **Type of Goods:** The kind of commodity, its features and usability determines the customer base it is going to cater. The demand for existing goods can be easily estimated by following the previous sales trend, competitors' analysis and substitutes available. Whereas, the demand for a new product on the market is difficult to predict.
- **Competition:** The level of competition in the market supports the process of demand forecasting. It is easy to predict sales in a less competitive market, whereas the same becomes difficult in a market where the new firms can freely enter.
- **Technology:** The demand for any product or service changes drastically with the advancement in technology. Therefore, it is essential for an organisation to be aware of technological development while forecasting the demand for any commodity.

- **Economic Perspective:** Being updated with economic changes and growth is necessary for demand forecasting. It assists the organisation in preparing for future possibilities and analysing the impact of economic development on sales.

Process of Demand Forecasting:

Demand forecasting is not based on assumptions but is a systematic and scientific process of estimating future sales and performance as well as directing the resources accordingly.

The steps involved in a standard demand forecasting process are as follows:

- **Setting the Objectives:** The purpose for which the demand forecasting is being done must be clear. Whether it is for short-term or long-term, the market share of the product, the market share of the organisation, competitors share, etc. By all these aspects, the objectives for forecasting are framed.
- **Determining the Time Perspective:** The defined objectives are supported by the period for which the forecasting is being done. The demand for a commodity varies with the change in its determinants over the period. There is a negligible change in price, income or other factors in the short run. But, the organisation may notice a considerable difference in these determinants over a long-term, affecting the demand of a commodity.
- **Selecting a Suitable Demand Forecasting Method**: Demand forecasting is based on specific evidence and is determined using a particular technique or method. The method of prediction must be selected wisely. It is dependant on the information available, the purpose of predicting and the period it is done for.
- **Collecting the Data:** Forecasting is based on past experiences and data. This data or information can be primary or secondary. Primary data comprises of the information directly collected by the analysts and researchers; whereas secondary data includes the physical evidence of the past performance, sales trend in the past years, financial reports, etc.

- **Estimating the Results**: The data so collected is arranged in a systematic and meaningful manner. The past performance of a product in the market is analysed on this basis. Accordingly, future sales prediction and demand estimation are done. The results so drew must be in a format which is easy to understand and apply by the management.

Meaning of supply: supply is the “ quantity of commodity , which a seller offers for sale in the market at a particular price and at particular time” supply is the only part of the stock.

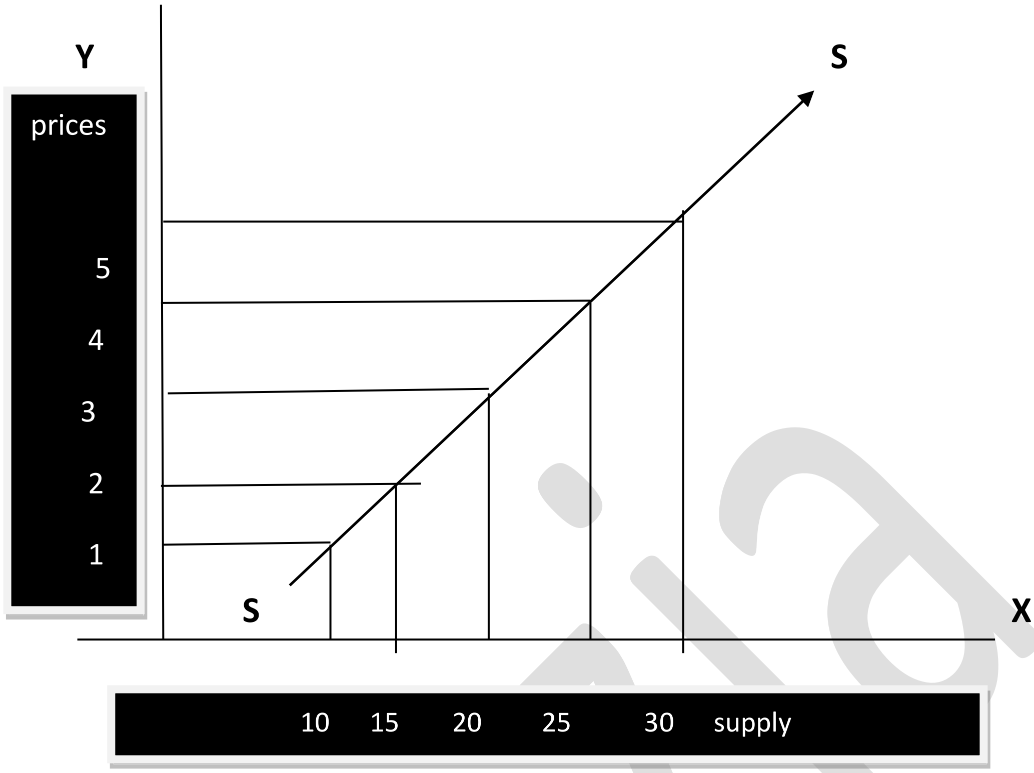
Law of supply: other things being equal , if the price of a commodity increases , supply will increases and if the price of a commodity decreases the supply will also decreases.

Supply schedule: It explain the relationship between the prices of the commodity and the quantity supplied Demand is held constant. Tabular representation of price and quantity supply is known as supply scheduled.

Supply curve: it’s a graphical representation of supply schedule is known as a supply curve.

Prices	Supply
1	10
2	15
3	20
4	25
5	30

The supply curve always slopes upwards from left to right. this positive slope of supply curve indicates direct relationship between the price and the supply of commodity .



Assumptions of law of supply:

- **No change in cost of the product :** it is assumed that the cost of production should be remaining same . if the cost of production increases along either rise in the price of product, the sellers will not find it worth while to produce more and supply more .
- **No change in the ,method of production :** the technique of production is assumed to be unchanged . this is essential for the cost remain unchanged.
- **Fixed scale of production :** during the given period of time , it is assumed that the scale of production is held constant .

- **Government policies are unchanged:** government policies like taxation , trade policy etc are assumed to be constant.

- **Unchanged transport cost:** it is assumed that transport facilities and transport costs are unchanged .

- **No speculation :** the law also assumed that the sellers do not speculate about the future changes in the prices of the product.

- **The price of substitute held constant:** the law also assumes that the prices of substitutes should be same .

Determinants of supply : supply of a commodity depends not only on the prices , but also on several factors .such factors are as follows.

- **Prices of the commodity :** if the prices increases ,supply will increases and if the prices decreases supply also decreases , this indicates that there is a direct relationship between prices and quantity supply .
- **Prices of a related goods:** if the prices of other goods rise ,they become relatively more profitable to the firm to produce and sell . if the other prices of the product rises all the other firms shift their demand of production towards it.
- **Factors of production :** if the factors of production are very expensive , cost of making goods increase and many affects the profitability . hence the prices of the factors of production plays an important role in the supply of commodities.
- **Technology :** inventions and innovations tends to make it possible to produce more and better goods with the same resources and tends to increase the supply.
- **Government policy :** if the government increases excise duty ,sales tax, import tax, this will increase the cost of production and thereby it will affect the supply of goods in the market .

Important questions from this unit as per previous year question papers:

2 marks:

1. **Meaning of law of supply ?**
2. **Define the term demand ?**
3. **What is elasticity of demand?**
4. **What is income elasticity of demand ?**
5. **Give the meaning of giffen goods?**
6. **Give the meaning of perfectly price elastic demand ?**

5 marks:

7. **What are the exceptions to the law of demand ?**
8. **Mention the different methods of demand forecasting?**
9. **What is the law of supply? Explain the determinants of law of supply?**

15 marks:

10.methods of demand forecasting ?

11. explain the different types of elasticity of demand ?(very important)

12. What is law of demand ? explain exceptions to the law of demand ?(very important)

13. problems on least square method ?

14. problems on price elasticity of demand (total outlay methods)?

15. problems on moving average method?

Unit-3 Production and Cost Analysis

Meaning of Production:

Production Refers to the use of any process which is designed to transform a set of input elements into a set of output element.

The term “production” means a process by which resources (men, material, time etc) are **transformed** into a different and ***more useful commodity or services.***

Definition:

According to 'Elwood Butta', "Production is a process by which goods or services are created".

According to 'Prof. Benham', "Anything that contributes towards output is a factor of Production".

Production function:

A production function is a mathematical representation of input output relationship.

Production function expresses a functional or technical relationship between physical inputs and physical outputs of a firm at any particular time period.

The various factors of Production in economics are :

1. Land

2. Labour

3. Capital

4. Entrepreneur

1. Land

Land is not created by mankind but it is a Gift of nature, So it is called as Natural factor of production. It is also called as Original or primary factor of production Normally Land means surface of earth. It includes Earth surface & resources above & below the Surface of the earth.

2. Labour

Labour is an ability to work. Labour is a broad Concept because it includes both physical and mental labourwork.

3. Capital : Capital in the financial asset or the financial Value of asset such as Cash.

4. Entrepreneur

The term Entrepreneur has been derived from a French word "Entreprendre" meaning to undertake certain activities. Factors of production i.e. land, labour & capital are scattered at different places All these factors have to be assembled together. This work is done by enterprise through entrepreneur This is an organisational function Entrepreneur has to bear Risk uncertainty.

Law of production: There are three ways :

- Short run this type of production function is where *only one factor* is variable while other factors are constant. This type of production function has been described as the "law of variable proportions".

- Long run is divided into to two types one is isoquant analysis this *two variable input* and another one is law of returns to scale all input variables.

Law of variable proportion (one factors will vary):

Law of Variable Proportions occupies an important place in economic theory.

This law is also known *as Law of Proportionality*. Keeping other factors fixed, the law explains the production function with one factor variable.

In the short run when output of a commodity is *wanted to be increased*, the law of variable proportions comes into operation. " Therefore, when the number of *one factor is increased or decreased,* while other factors are constant, the *proportion between the factors is altered"*.

Statement of the law:

"In the short run, when the units of a variable factors are increased in the production function in order to increase the total product (output), the total product may initially raise at an increasing rate and after a point, it tends to increase at a decreasing rate, but eventually in the further stage, it tend to decline”.

Assumptions:

- **Constant Technology:** The state of technology is assumed to be given and constant. If there is an improvement in technology the production function will move upward.
- **Factor Proportions are Variable:** The law assumes that factor proportions are variable. If factors of production are to be combined in a fixed proportion, the law has no validity.
- **Homogeneous Factor Units:** The units of variable factor are homogeneous. Each unit is identical in quality and amount with every other unit.
- **Short-Run:** The law operates in the short-run when it is not possible to vary all factor inputs.

Measures: To clarify the *relationship contained in the law of proportions,* we have to adopt the following measures of a product namely:

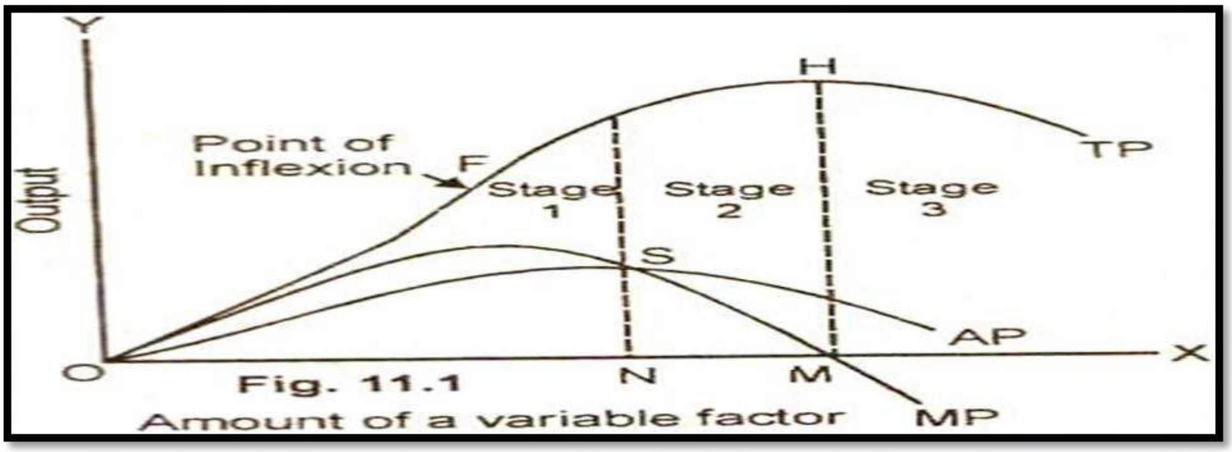
- **Total product (TP):** it refers to the total number of units of output produced per unit of time by all factor input. TP=f (QVF) – qty of variable factor.
- **Average product (AP)**: it refers to the total product per unit of a given variable factors. AP=TP/Q
- **Marginal product (MP):** MP is the change in total product per unit change in the quantity of variable factor.

Table 1.

Units of Land	Units of Labour	Total Production	Average Production	Marginal Production	
10 Acres	0	–	–	–	
”	1	20	20	20	1st stage MP > AP
”	2	50	25	30	
”	3	90	30	40	
”	4	120	30	30	AP = MP
”	5	140	28	20	2nd stage MP=0 and TP Maximum
”	6	150	25	10	
”	7	150	21.3	0	
”	8	140	17.5	–10	3rd stage MP < 0

Explanation : It is assumed that the amount of fixed factors (land &capital) is given and held constant throughout. To this labour- the variable factor is added unit wise to increase the production of commodity X. From the table 1 it is clear that there are three stages of the law of variable proportion. In the first stage average production increases as there are more and more doses of labour and capital employed with fixed factors (land). We see that total product, average product, and marginal product increases but average product and marginal product increases up to 40 units. Later on, both start decreasing because proportion of workers to land was sufficient and land is not properly used. This is the end of the first stage. The second stage starts from where the first stage ends or where AP=MP. In this stage, average product and marginal product start falling. We should note that marginal product falls at a faster rate than the average product. Here, total product increases at a diminishing rate. It is also maximum at 70 units of labour where marginal product becomes zero while average product is never zero or negative. The third stage begins where second stage ends. This starts from 8th unit. Here, marginal product is negative and total product falls but average product is still positive. At this stage, any additional dose leads to positive nuisance because additional dose leads to negative marginal product.

- As the MP tends to diminish, it ultimately becomes zero and negative further. This is the stage of negative return – stage III.
- The TP curve has an upward slope up to point 'H' and then it moves downwards. After the point H, the slope of the TP curve become negative.
- The MP curve is raising, diminishing and eventually become negative (MP curve is raising up to point S and then it falls downwards.
- When the MP curve intercepts the point M on the x axis, it corresponding to point H on TP curve which significant that when MP=0, TP is at its maximum.



Law of returns to scale:

Meaning: The law of returns to scale explains the proportional change in output with respect to proportional change in inputs.

In other words, the law of returns to scale states when there are a *proportionate change in the amounts of inputs, the behaviour of output also changes.*

For example, an output may change by a large proportion, same proportion, or small proportion with respect to change in input.

On the basis of these possibilities, law of returns can be classified into three categories:

- i. Increasing returns to scale
- ii. Constant returns to scale
- iii. Diminishing returns to scale

Increasing returns to scale: laws of returns to scale refer to an increase in output due to increase in all factors in the same proportion. Such an increase is called returns to scale. "*If the proportional change in the output of an organization is greater than the proportional change in inputs, the production is said to reflect increasing returns to scale".*

For example, to produce a particular product, if the quantity of inputs is doubled and the increase in output is more than double, it is said to be an increasing returns to scale.

Constant returns to scale: refers to the production situation in which output increases exactly in the same proportion in which factors of production are increased.

In simple terms, if factors of production are doubled output will also be doubled.

Diminishing returns: refer to that production situation, where if all the factors of production are increased in a given proportion, output increases in a smaller proportion.

It means, if inputs are doubled, output will be less than doubled.

Iso – quant :

Meaning : The term Iso-quant or Iso-product is collection of two words, Iso = equal, quant = quantity or product = output.

Iso-quant is also know as production function with two variable input or equal product curve.

Economics of scale: Economics of scale refers to those advantage enjoyed by affirm when its production size expand.

In other words, it’s the advantage or benefits that occur to affirm as a result of increasing in its scale of production so economics of sale are largely influenced by the size of the plant and its production capacity.

Reasons for economics of scale:

a) **specialization and division of labour :** in large scale operation workers can do more specific task with little training they can become very proficient in tasks, this enables greater efficiency .

b) **Technical:** some production process require fixed costs. For example if a car factory runs on a small scale , it would be very inefficient to run .so by using the factory full capacity its average costs will decreases.

c) **Bulk buying:** it will reduces the average cost. This is because of lower transportation and packing costs. This is why super marketers get lower prices from supplier than the local corner shops.

d) **Risk bearing economics :** some investments are very expensive and perhaps risky , therefore only a large firm will be able to undertake the necessary investments .

e) **Marketing economics of scale:** the large firms can enjoy more of marketing benefits than smaller firms.

f) **Financial economics :** a bigger firm can get a better rate of interest than small firm .

Types of economies of scale : (very important question for 15 marks)

i. **Internal economies**
ii. **External economies**

Internal economies: Refer to real economies which arise from the expansion of the plant size of the organization. These economies arise from the growth of the organization itself.

Types of internal economies of scale:

- Technical economies of scale
- Marketing economies of scale
- Financial economies of scale
- Managerial economies of scale
- Labor economics
- Social economics

- **Technical economies of scale :** technical economies of scale refer to reduction in the cost of the manufacturing process itself. Occur when organizations invest in the expensive and advanced technology. This helps in lowering and controlling the costs of production of organizations.

- **Marketing economies of scale :** The marketing economies of scale are achieved in case of bulk buying, branding, and advertising. , large organizations enjoy benefits on advertising costs as they cover larger audience. On the other hand, small organizations pay equal advertising expenses as large organizations, but do not enjoy such benefits on advertising costs.

- **Financial economies of scale :** Take place when large organizations borrow money at lower rate of interest. These organizations have good credibility in the market. Generally, banks prefer to grant loans to those organizations that have strong foothold in the market and have good repaying capacity.

- **Managerial economies of scale :** Occur when large organizations employ specialized workers for performing different tasks. These workers are experts in their fields and use their knowledge and experience to maximize the profits of the organization.

- **Labour economies of scale :** labour economics arises due to the increase in the division of labour .when the output increases as the labour force grows may lead to specialization and hence better prospects is possible .there will be overall development which will results in reduction in costs.

- **Social economies of scale :** those there will be the development in the 2 groups ; those who build up the goodwill of the community and so attract customer and to develop the loyalty of the firms employers.

External economics of scale: External economies refer to all those benefits which accrue to all the firms operating in a given industry.

Generally, these economies accrue due to the expansion of industry and other facilities expanded by the Government.

Types of external economies of scale:

- Economies related to particular industry
- Economies related to industrialization
- Economies related to society
- Economies of governments

❖ **Economies related to particular industry:** they derived from the centralization of the industry in one place and differ between industries. when a large number of firms are located in one place ,all of them derive mutual advantages through the training of skilled labour , provision of better transport facilities and simulation of improvements .

❖ **Economies related to industrialization:** if there is great concentration in specific place. The communication expenses can be shared. The activities of the essential services sector multiply, providing more advantages to firms in the industrialized area.

❖ **Economies related to society:** the provision of roads, school etc is largely the responsibility of the state. Industrialization increased the provision of these facilities.

❖ **Economies of governments :**   they are in the forms of concessions, tax holiday, subsidies, tax concessions etc. Announced by the government for the development of industry.

Difference between internal and external economies of scale : (2marks)

Internal economies	**External economies**
Internal economies are the economies of size of a firm.	External economies are the economies of size of the industry.
Internal economies are firm specific	External economies specified with industry.
It arises due to improvement in internal factors such as technology, management, financial and marketing.	External economies arise due to external factors such as economies of concentration ,information ,government policy, natural factors etc.

Cost analysis:

Cost or economic cost meaning: cost is an expenditure incurred in the production of goods and services. it also refers to all monetary expenses incurred by the manufacturer to produce goods and services.

Types of costs or cost concepts:

- **Fixed and variable cost:** fixed cost are those costs that are incurred as a result of the uses of fixed factor input. Fixed factor remain fixed at any level of output in the short run. Fixed cost also called a “unavoidable contractual cost” because it occur even if there is no production activity.
  Example : rent of the building ,depreciation of the assets .

  Variable costs are those cost that are incurred by the firm as a result of the use of variable factors. They are dependent upon the level of output.

  Example: prices of raw materials, wages of labour, fuel and power charges etc.

- **Explicit and implicit cost :** explicit cost includes those costs ,which are made by the firm to those factors of production not belonging to it .
  example: rent of the premises ,power charges .

  implicit cost refers to those cost , which do not take the form of cash payment or appear in the accounting system .it arises in the case of those factors, which are possessed and supplied by the employer himself.
  example: contribution of self –owned building ,capital , own laptops ,computer etc.
- **Opportunity and incremental cost :** opportunity cost is the cost of producing any commodity , which is the best alternative goods that is sacrificed . it is also called as alternative cost.
  Example: input which are used for manufacturing a car , can also be used in manufacturing the military equipments .

Incremental costs are the added costs resulting from a changes in the level of business activity , say adding a new product , adding new machinery ,changing distribution channel .

- **Historical and replacement cost :** historical cost is the cost incurred at the time of the purchase of the machinery. While the replacement cost is the cost which will have to be incurred if the machinery is purchased in the place of the old machinery .

- **Sunk cost :** sunk cost is the cost which is once incurred and will not altered by the changes in the business activity , is also known as sunk cost .

- **Controllable and non controllable costs:** cost which are identifiable and subject to regulation by the business executives are called controllable costs.
  Example : direct labour costs , raw material costs .

  Non controllable costs are those cost that cannot be controlled by the executive of a firm. this is because the 2 or more executives at different level share the responsibility of controlling the cost further some costs are incurred due to the external factor over which the firm does not have any control.

  Example : changes in government policies, competition in the market .

- Short run and long run costs : short run are the operating costs associated with the changes in output, under utilization of fixed plant size .short run costs vary in relation to the variation in the variable input component only .

Long run costs are die – operating costs associated with the changing scale of output and the alternations in the size of plant. Long run costs is useful in making investment decisions.

Marginal cost : The marginal cost of an additional unit of output is the cost of the additional unit of output is the cost of the additional input. The Marginal

Cost is the derivative of total Production cost with respect to the level of output.

Long run : long run is a period of time in which all the factors of production and costs are variable. It is the time where the producer get enough time to make all kind of changes , adjustments and readjustment in the business and production process.

Characteristics of long run costs :

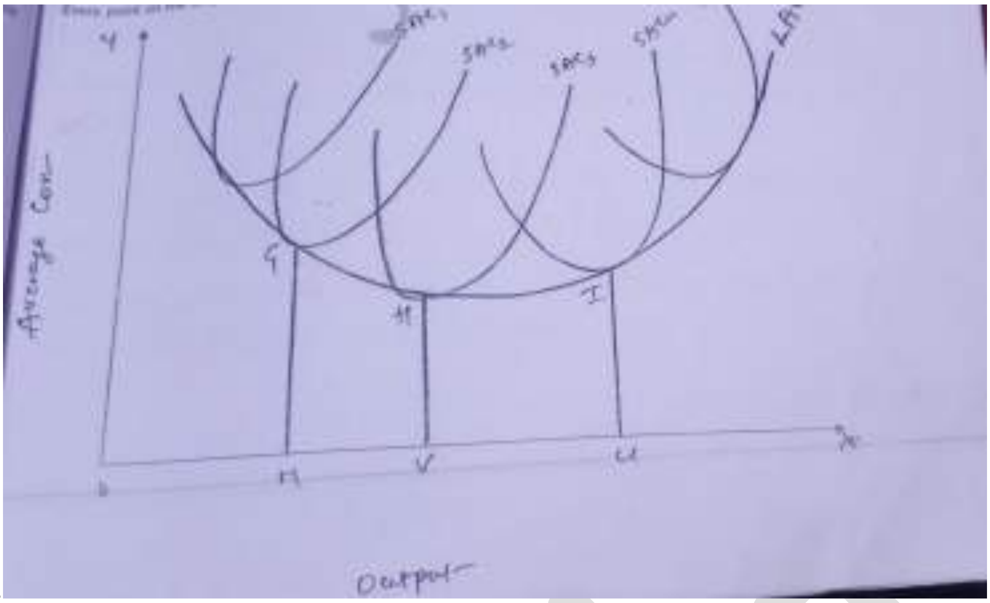
1. The long run period is the long enough to enable a firm to vary in all its factors inputs .
2. In long run a firm is not tied to a particular plant capacity . it can move from one plant capacity to another depending upon the market demand.
3. The firm can expand its plant capacity in order to meet long term market demand .
4. In the long run all cost are variables and they are direct costs . there will be no fixed costs .
5. In the long run to study the unit cost of a firm ,long run marginal cost curves are considered.

Long run costs curve (LAC) :

Since in the long run in the size of the plant can be varied by infinitely small gradation , there will be numerous average cost curves. By combining all these short run average costs curves, long run average cost curve may be obtained.

Long run costs would be a smooth curve enveloping all short run average cost curves. Hence it is known as envelop curve or planning curve .

Every point on the long run average costs curve will be tangency point with some short run average cost curves



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Features of long run average cost curve:

- **Tangent curve:** by joining of various short run phases , the LAC curve is drawn as a tangent curve . the long run average costs curve is the locus of all these point of tangency.

- **Envelop curve :** the LAC curve is also referred to as the envelop curve because it is the envelop of a group of a SAC curves appropriate to different level of output.

- **Planning curve :** LAC curve is regarded as the long run planning device , as it denotes the least unit cost of producing each possible level of output and the size of the plant in relation to the LAC curve .

- **Minimum cost combination :** the cost levels be presented by the LAC curve for different levels of output reflect minimum cost combinations of resources input to be adopted by the firm at each long run level of output .

- **Flatter U shaped :** the LAC curve is flatter u shaped curve . this means that in the beginning it gradually slopes downwards and then, after reaching a certain point , it gradually begins to slop upwards .

Important questions:

For 2 marks :

1) What is marginal cost ?
2) What is economics of scale ?
3) Mention any four types of internal economies of scale ?
4) State the law of returns to scale ?
5) What is production ?
6) What are explicit costs ?give an example ?
7) Give the meaning of opportunity costs?
8) What do you mean by iso quant ?

For 05 and 15 marks :

1) Problems on cost behaviour ?for 5 marks ?
2) What do you mean by economies of scale ? explain the forms of internal and external economies ?
3) Discuss the law of returns to scale ?
4) Explain the law of variable proportion ?
5) Briefly analyse the various forms of internal economies ?
6) Reasons for economies of scale ?
7) Explain the long run average cost curve?

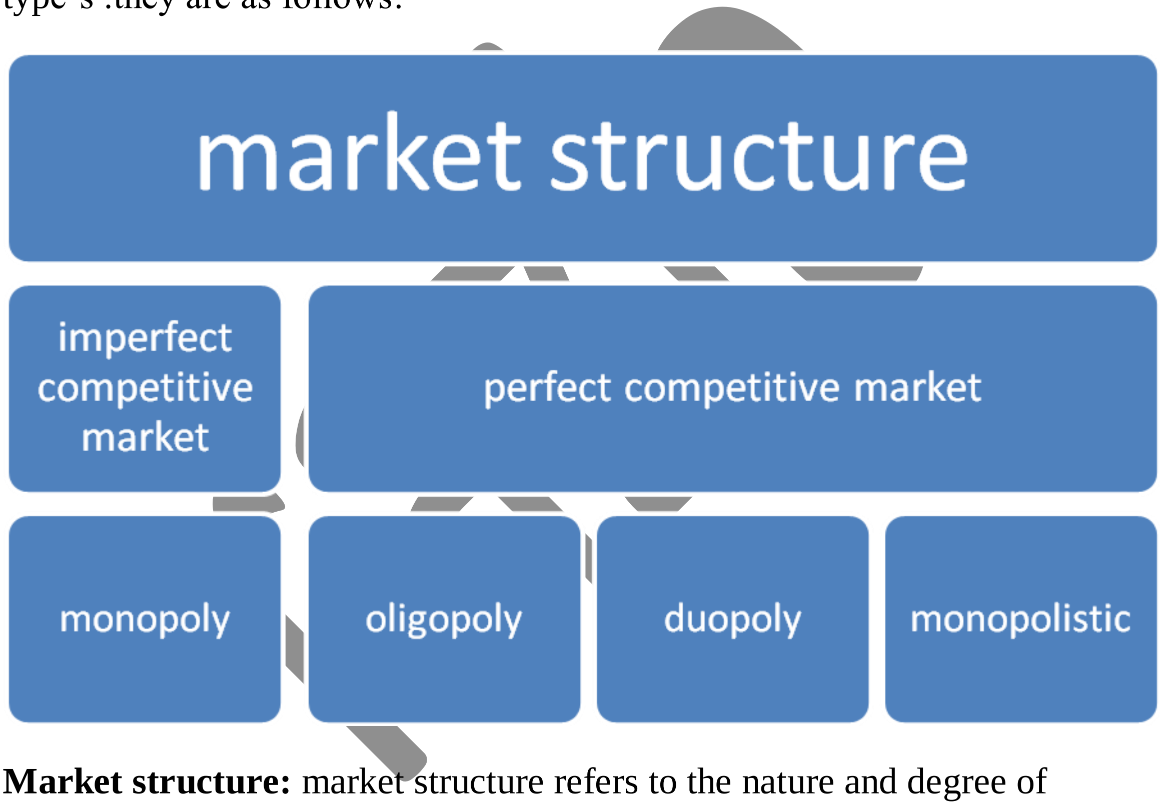
Unit – 04 Market structure

Meaning of market: market is a general field with in the forces determining the prices of a particular product .

Market is a place where buyer and seller meet together do buying and selling activity or engaged in the business of exchange of products and services for prices .

Classification of market or types of market:

On the basis of the competition the market has been classified mainly in to two type's .they are as follows:



Market structure: market structure refers to the nature and degree of competition in the market for goods and services. The structure of the market both for goods market and service ,market is determined by the nature of competition prevailing in the market .

Perfect competitive market:

Meaning : perfect competitive market is a hypothetical market where there are large number of buyers and sellers engaged in buying and selling of homogeneous products at uniform prices .

Definition :a market is said to be perfect when all the potential sellers and buyers are promptly aware of the prices at which transaction take place and all of the offers made by other sellers and buyers and when buyer can purchase from any seller and vice –versa. **According to prof. Benham,**

Characteristics or features of perfect competitive market:

- **Infinite number of buyer and seller :**the number of buyer and sellers in this market is infinite .though they are large in number the quantity bought and sold by them is so small .so no single buyer or seller can influence the market prices.

- **Free entry and exit of the firm :** there is absolute freedom to the firms to get in or get out of the industry . this result in the realisation of normal profits by all the firms in the long run .

- **Perfect mobility of factors of production :** under perfect competition the factor of production can be moved from one place to another place without any restrictions . this enables the firms and industry to achieve an equilibrium position .

- **Perfect knowledge / information in the market condition :** all the buyers and sellers will have the perfect knowledge of the market .so sellers cannot influence buyers and buyers cannot influence the seller .

- **No transportation costs** : all the firms will have equal access in the market . so there will be no transport cost .so buyers and sellers incurs no costs in making an exchanges (perfect mobility).

- **Profit maximization :** firms aims to sells where the margin al costs meet marginal revenue, then the firms generates maximum profits. Or firms enjoy more profits .

- **Homogeneous products :** the products produce and sold by the producers is homogeneous . it is standardized and purely identical. They are the perfect substitutes for one another .

- **Existence of single uniform prices :** since the product is homogeneous and the sellers are the price takers so a single and uniform prices will prevails in the perfect competitive market .

- **Full and unrestricted competition :** perfect competitive market is free from all sorts of monopoly, oligopoly conditions. So there will be no competition and each firms act independently.

Assumptions of perfect competition market :

- ❖ If the number of buyers and sellers should be large in this market.
- ❖ The products should be homogeneous .
- ❖ All the buyers and sellers should have perfect knowledge about the market conditions .
- ❖ All the firms are assumed to have equal access to the resources .
- ❖ It is assumed that there should be free entry and exits of the firms in the industry .
- ❖ It is assumed that there should be no transportation costs.

Imperfect competition market: imperfect competition market is a situation where there are many sellers , but they are selling heterogeneous (dissimilar) goods as opposed to the perfect competitive market scenario. as the name suggests competition in this markets that are imperfect in nature .

The imperfect competition market were classified in to different types they are as follows.

- Monopoly market
- Duo poly market
- Oligo poly market
- Monopolistic market

Monopoly market: mono means – single and poly means – sell. So monopoly means existence of a single seller in the market .

Monopoly can be defined as that market form in which a single producer/ seller controls the whole supply of a single commodity which has no close substitute.

Definition : monopoly refers to the control over supply **– according to chamberlain .**

Features or characteristics of monopoly market:

- **Single seller :**in the monopoly market there is a single producer /seller of a particular commodity in the market accruing to a large number of a buyers. in this market structure , the firm is the industry and the market is referred to the pure monopoly .

- **Restrictions for the entry of the new firms:** under monopoly ,there are strong restriction for the entry of new firms to the industry . there are some barriers regarding govt license, resource ownership etc.

- **Homogeneous products :** a monopoly firms manufacturers a commodity that has not close substitute and is a homogeneous products .with the absence of availability of substitute , the buyer is bound to purchase what is available in the market at a targeted prices .

- **Full control over prices (price maker) :** since there is no close substitute for the product and no other sellers is in the market , so the monopolist is the price maker rather then the price taker . so the seller has a complete control over the prices of the product .

- **Price discrimination :** it can be defined as the "practice by the seller of charging prices differently for the different customers for the same goods and services " a monopolistic has the leverage to carry out price discrimination as he is the price maker and act as per his suitability.

- **Price elasticity :** the goods sold by the monopolist has a great elasticity of demand and also the prices .

- **Lack of competition** : since there is only one seller or single producer or seller rule the market there were no rival firms and there is no competition in the market .

- **No difference between firm and industry:** since there is only one firm under monopoly so there is no difference between firm and industry.

- **Super profit :** in the monopoly market a firm can enjoy a super profits by fixing the prices as per his or her wish to the product.

Duopoly market : Duopoly is a market situation in which there are only two sellers producing and selling either identical or differentiated products .so it is a two firm industry .

Characteristics or features of duopoly:

- The number of buyers and sellers in the market is only two .
- The decision of seller is not independent of each other.
- The change in the price and output by the seller will effects each other sellers.
- The products can be homogeneous or differentiated.
- The decision variables includes price, product differentiation, selling expenses etc. but the decision depend upon the strategies of the competitor.
- The two firm may either resort to competition or collusion.

Oligopoly market:

The word oligopoly is derived from Greek word “oligoi”, which means few and “poly” means to sell .So oligopoly means a market with few producers or sellers specializing in the production of identical goods or differentiated goods competing with one another.

Characteristics or features of oligopoly market:

- **Interdependence :** the firm under oligopoly are depend on each other for fixing prices and output .they are interdependent because the number of competitor is few and any change in the prices and products etc. By a firm will have a direct influence on the fortune of its rivals.

- **Importance of advertising and selling costs:** intermediate demand curve makes a firms to take aggressive advertisement to attract new customers for their products. Advertisement and selling cost play a major role in the oligopoly market.

- **Group behaviour:** another important feature of the oligopoly firm is group behaviour. another peculiarity in oligopoly is the conflicting attitude of the firms in the group.

- **Intermediate of demand curve :** no firm in the oligopoly can forecast nature of demand for their product ,whenever there is a change in the price and output policy .hence demand curve or revenue firm is intermediate .

- **Element of monopoly:** it has the element of monopoly because each firms controls the large market share .

- **Price rigidity:** the prices will be kept unchanged, because if one firm cuts the price, other firms also follow the same .no firms indulge in price cutting as it would lead to price war. So price tends to be sticky or rigid under monopoly.

- **Kinked demand curve:** the firm has kinked demand curve because of price rigidity under oligopoly.

- There is **lack of uniformity** among the sellers in the oligopoly market.

Monopolistic competitive market: monopolistic market exhibits the characteristics of both perfect competition and monopoly. Since in the modern markets are combined and integrated with monopoly power and competitive forces they are called as monopolistic competition.

It is a market situation in which a large number of small sellers sell differentiated products that are close but not perfect substitute for one another.

Features or characteristics of monopolistic market:

- **Existence of large number of firms :** monopolistic competition is characterized by large number of firms producing close substitutes but not identical products .each firm must control a small yet significant portion of the market share such that by substantially extending or restricting it own sales .

- **product differentiation :** the most outstanding feature of monopolistic competition is product differentiation . Firms adopt different techniques to differentiate their products from one another .

- **Absence of inter - dependence:** the numbers of firms are more, but the size of each firm is small. No individual firm can influence the market price, because each firm acts independently without worrying about the policies followed by other firms. Each firm follows an independent price –output policy.

- **Selling costs:** selling costs is an important feature under monopolistic competition . the most important form of selling costs is advertisement cost. This is undertaken by the firm in order to popularize his brand in the market.

- **Free entry and exit of a firm :** each firm produces a very close substitute for the existing brand of a product. Thus, differentiation provides ample opportunity for a firm to enter with the group or industry . on the contrary , if the firm faces the problem of product obsolescence , it may be forced to go out of the industry.

- **No price competition :** in this market, there will be competition among sellers for their products and not for the price of the product . thus, there is product competition rather than price competition.

- **Lack of perfect knowledge :** both the buyer and sellers do not have perfect knowledge of the market .

- **Lack of mobility of factors :** it is assumed that both factors of production and goods and services are not perfectly mobile under monopoly competition .

- **More elastic demand :** the firm under monopolistic competition have more elastic demand curve (that is if the firm wanted to sell more , it must reduce its price).

Price and output determination under perfect competition market:

Before Marshall, there was controversy among economist on whether the force of demand or force of supply is important in determining price. Marshall gave equal importance to both demand and supply in determination of price. The equilibrium price is determined at that where the quantity demanded and quantity supplied are equal.

The equilibrium price is determined at a point where quantity demanded is equal to quantity supplied.

In case of either quantity demanded by the buyer is more than that offered by the seller or the quantity supplied by the seller is greater than quantity demanded by the buyers the price will change so as to bring about equality between quantity demanded and quantity supplies .

The process of price determination can be explained with the help of the following table .

Price per unit	Quantity demanded	Quantity supplied	Pressure on price
05	9	18	Falling
04	10	16	Falling
03	12	12	Neutral
02	15	07	Rising
01	20	00	Rising

It is seen in the table that when prices is Rs. 3 per unit ,quantity demanded and quantity supplied are equal at 12 units. When prices is Rs. 5 per unit quantity demanded is 9 units and amount offered at this price is 18 unit is greater than demanded so there is a tendency for the price to fall because at this price some of the seller will be unable to sell all the quantity they want to sale therefore they will reduce in the price in order to attract the customer. Same thing happen with Rs.4 , at the price Rs.1 quantity demanded is 20 but the quantity supplied by the seller is 00. So the customer wanted to purchase the product to satisfied their needs they are ready to pay the price what ever it may be. so the firms going to raise their price .

Short run equilibrium of the firm and industry:

In the perfect competition , single firm and single consumer cannot influence the price by varying supply or demand respectively. Hence, price remain constant in perfect competition . so the problem is to determine the output level to maximize profits.

We know that in the short run fixed cost remain same whatever may be the level of output. hence average variable costs plays an important role in deciding whether to produce or not .so the minimum variable cost sets a limit to the price in short run.

As we know that firm will be in equilibrium when it is earning maximum profit. According to the marginal costs and marginal revenue approach a firm will make maximum profit when MR and MC cuts MR from below.

The short run equilibrium of the firm requires short run equality between demand and supply , this can be explained clearly with the help of the following diagram .

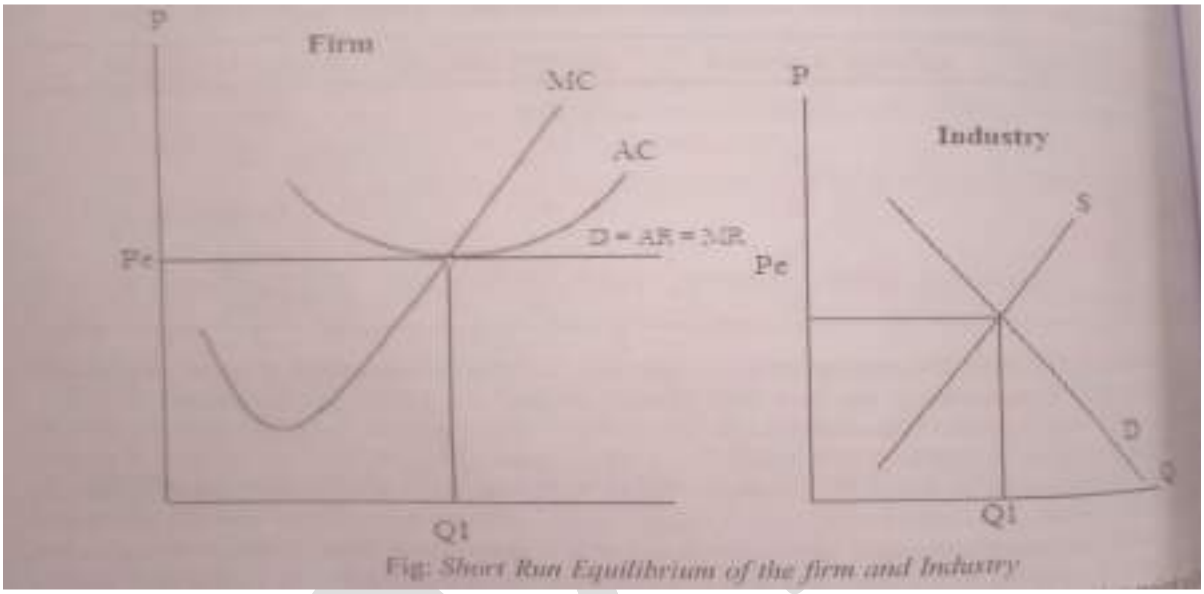


Fig: Short Run Equilibrium of the firm and Industry

Long run equilibrium of the firm and industry:

In the long run all costs are variable . so the total cost is equal tot the total variable cost. Therefore we need to deal with long run average cost. We assume that LAC to be U shaped exhibiting the fact that at the low level of output, the cost is falling and beyond appoint , it arises.

As in the short run the firms are making profits; there will be entry of new firms in the market. As a result , the industry supply would go up and price would fall. This would continue until the profits are goes down to zero.

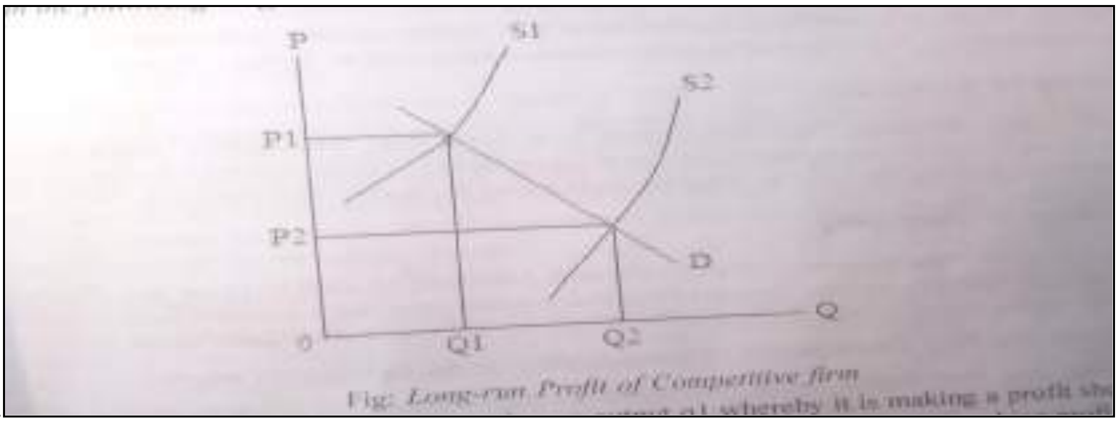


Fig: Long-run Profit of Competitive firm

In this figure at price, P_1 the firm is producing an output q_1 where by it is making a profit shown by the shaded area. At price p1 the industry output q1 . as the existing firms are making profits, there will be entry of new firms into the market. As a result, total supply in the market would go up and the price in the market would fall. This would continue until the profits are driven to zero. This price is p2 where P= MC= AC and therefore profit is zero.

P_2 would represent an equilibrium price level with q_2 as the equilibrium output , where the economic profits for the firms are zero.

Price and output determination under monopoly market :

Under monopoly , the MR curves lies below the AR curve. The equilibrium level of monopoly is that level of output in which marginal revenue equals marginal cost.

The producer will continue the production as long as the marginal revenue is more than the marginal cost . the monopolist will earn maximum profits at that point where MR= MC . beyond this point the producer will stop producing because here MC>MR.

Pricing under pure monopoly:

The aim of the monopolist is to maximize profit, therefore he will produce the level of output and change that price which gives him maximum profits. He will be in equilibrium position at that level of output at which MR = MC .

In order to achieve equilibrium, the monopolist should satisfy the following two conditions:

a) MC should equal to MR
b) MC curve should cut MR curve from below.

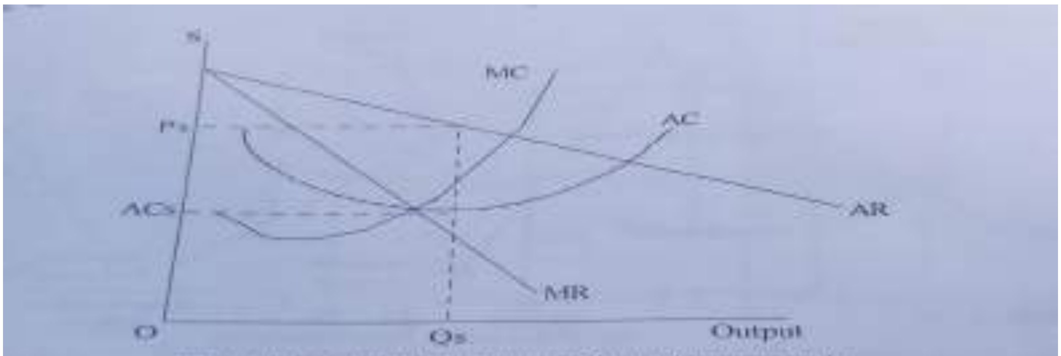


Fig: Price-Output determination under monopoly

Important questions from this unit:

For 2 marks :

1. Define the term monopoly?
2. Give the meaning of monopolistic competition ?
3. What is oligopoly market ?
4. What is market structure ?

For 05 and 15 marks:

1. Explain the features of monopoly market ?*
2. Various features of monopoly and explain price and output determination under monopoly (pure monopoly)?
3. Characteristics of perfect competitive market ?***
4. Features of monopolistic competition ?*

Unit -04:-Pricing Policy

Price meaning:

Price is refers to the sum of money for which anything is brought, sold or offered for sale.

Meaning of pricing:

Pricing refers to the process of determining what a company will receive in exchange for its product. It is the method adopted by a firm to set its selling price.

Pricing policy:

Pricing policy refers to the policy of setting the price of the product and services by the management after taking into account of various internal and external factors and its own business objectives.

In other words pricing policy refers to the policy by which a company determines the wholesale and retail prices for its products and services. A pricing policy is usually based on the cost of production, provision for margin of profits for example cost plus pricing.

Objectives of pricing policy:

There are some of the following objectives are to be considered while fixing the prices of the products.

1. **Profit maximization :** the primary objective of any business firm is to maximize its profits. The pricing policy is an important instrument to achieve this objective. Hence price will be fixed in such a manner that it recovers cost of production , maximizes the sales revenue and profit.

2. **Price stabilization :** while fixing up the prices the business concern ensures that the prices fixed by its remains constant over a period of time . stable pricing policy can win confidence of the customers and may add to the goodwill of the company ,which in turns increases the reputation and image of the firm.

3. **Facing competitive situation :** another objective of pricing policy is to face the competitive situations in the market . so the firm should fix the price of its products keeping the price of competitors price in mind.

4. **Capturing market :** another objective of pricing policy is to capture the market, the firm should comparatively fix low prices for its product .with the aim, the firm sells its products even at cost prices in the initial stages . this may proves to be beneficial in the long run .

5. **To established equilibrium between demand and supply :** pricing policy is used as a tool in order to maintain equilibrium in the market .

6. **Survival :** in these days of sever competition and business uncertainties , the firm must set a prices which would safeguard the welfare of the firm . a firm is always interested in survival .

7. **Service motive :** if the main objective of the business is to provide service to the society rather than making more profits then moderates pricing policy may be followed .

8. **Long run welfare of the firm :** the main objective of pricing policy has to designed in such a way as to fulfil the long run interests of the firm keeping internal conditions and external condition s or environment in the mind .

9. **Entry in to the new market :** entry into new market s speaks about the successful story of the firm. The price set by the firm has to be so attractive that the buyer of the other markets have to switch over to this particular products.

10. **Achieving target returns :** the price of the product is to calculated as to earn the target returns on cost of production , sales and capital investments . the targets are set according to the position of individual firm . hence , the prices of the products are so calculated as to earn the target returns on the costs.

The general considerations / factor considered in formulating pricing policy /factor affecting pricing policy :

A number of factors that are of general in nature have to be taken into account while fixing the most ideal price for a product. Some of them are:

1. **Objectives of the firm:** every firm has certain objectives, which are to be achieved the pricing policy should be in accordance with the objectives of the business firm. Some of those objectives are:
   a) Survival or continued existence of a firm in the market.
   b) Achieving higher rates of growth.
   c) Market share expansion.
   d) Leadership of the industry.
   e) Preventing competition
   f) Profit maximisation/sales maximisation etc.
2. **Competitive situation in the market:** fixing a particular price depends on the nature of the market in which the firm is operating. Whether it is operating under monopoly, oligopoly, duopoly or perfect competition. Market situation decides the pricing policy of a business firm apart from it, several other considerations also decide the pricing policy. Some of them are:

   1) Number of buyers and sellers ,size of the plant ,availability of substitutes
   2) Existence of potential competitors
   3) The degree of responsiveness of consumer
   4) Possibilities of adopting price discrimination policy
   5) Product differentiation
   6) Market position enjoyed by a firm

3. **Cost of production:**

If the cost of production is high, the price of the product will also be high and if lower is the cost of production then the selling price will also be low.

4. **Distribution channel:**

Longer the distribution channel higher would be the price and if consumers can get the desired product directly from the manufacturer then the selling price will affect the pricing policy.

5. **Elasticity of demand:**

A business firm may fix higher price for its product – if it has inelastic demand in the market and on the other hand a business firm has to reduce the price of its product – if it has elastic demand in the market.

6. **Business cycles:**

During recession, prices are reduced and during prosperity higher prices may be charged. This is because during recession the income level of the people will be low and during prosperity the income level of the people will be high.

7. **Government policies:**

Government controls, restrictions and regulations, increase in administered prices of inputs, increase in the rate of taxes etc will definitely push up the prices. Tax concessions, subsidies, tax rebates etc will reduce the price level.

8. **Social and ethical considerations:**

Social obligations and responsibilities in general, ethical and moral standards adopted by a firm policy. If the main objective of a business firm is to provide services to the people, then it may provide goods even at cost price.

9. **Product stages in the life cycle:**

During the initial stages of the product a firm may charge low price and once it is established in the market, then it may charge higher price for the same product. Hence pricing policy may be different in different stages of products life.

10. **Buying patterns of consumers:** high purchase frequency of the product is to be priced less and low purchase frequency item may be sold at high prices .

Methods of pricing policy (pricing methods):

Pricing methods refers to the use of a specific type of information on prices to represent the evolution of price in the price index competition .this includes :

1) Cost plus pricing
2) Going rate policy
3) Target returns pricing
4) Administrative pricing
5) Psychological pricing
6) Marginal cost pricing
7) Product line pricing
8) Competitive pricing
9) Dual pricing
10) Transfer pricing

- **Cost plus pricing :** cost plus pricing or full cost pricing refers to the price of the product by adding certain cost percentage of profit to the average total cost of production .

Cost plus pricing = cost + fair profit

Advantages of cost plus pricing :

- Easy to calculate
- It safeguard the interest of the firm against risks when demand is uncertain
- It is economical for decision making by the firm
- It protect the firm from price war

Disadvantages or limitations of cost plus pricing :

- It completely ignores consumer preferences and demand .so it a one sided approach.
- It does not take into account the competition and competitors pricing policy.
- It ignore future costs in pricing decision.

- **Going rate policy :** It is a competitive pricing method where in a firm tries to keep its price at the average level charged by the industry. Under this method the prices of a product is based on prices of existing products in the market. The going rate pricing method is used in pricing paper, cement, fertilizers, steel, petrol and chemical industries.

Advantages:

- Going rate policy is useful where it is difficult to measure costs.
- Yields fair return to all firms in the industry.
- This method is most conducive for industry's harmony.
- It is flexible in responding to changing market conditions .

Disadvantages:

- This pricing can damage your business in the long run.
- It does not considered the cost structure and target profit of your business.
- It may devalue your business's current brand undermine your current customer base.
- It may result in price wars if your pricing are set below competitors prices.

- **Target return pricing :**price is determined along with planned rate of return on investment. The rate of return is to be translated into normal percentage of profit margin on the costs. The profit margin is determined on the basis of normal rate of production.

Example : if the 20 lakhs is an investment , rate of return is 20 % , unit of cost is 20 and sales were 50,000 units.

Formula : TRP = unit cost + (desired return * investment on capital) _ unit of sales

= 20+ (0.20 *20,00,000) _ 50,000

= 28

- **Administrative price :** according to Keyness ; price is determined by an individual producer or seller not purely by the market forces.

In other words ; The term administered prices was introduced by Keyness for the prices charged by a monopolist and therefore, determined by considerations other than marginal cost. It is managed or prescribed price. A monopolist being a price maker consciously administers the price of his product.

Psychological pricing : It is based on the price of factors such as signals of product quality, popular price points and what the consumer perceives to be fair psychological pricing or price ending is a little less than a round number, ex. Rs.499, 999 etc.

- **Marginal cost pricing :** it refers to the practice of setting the prices of a product to equal the extra cost of producing an extra unit of output .

  Formula : $\mathbf{MCP} = \dfrac{\triangle \textbf{ total cost}}{\triangle \textbf{ out put}}$

- **Dual pricing :** It refers to the practice of setting prices at different levels depending on the currency used to make the purchase. Dual pricing may be used to accomplish a variety of goals such as to gain entry into foreign market by offering unusually low prices to buyers using the foreign currency.
- **Transfer pricing :** It refers to the setting, analysis, documentation and adjustment of charges made between related parties for goods, services or use of property.
- **Product line pricing :** It is a pricing strategy that uses one product with various class distinctions.

Example would be a car model that has various model types that changes with performance and quality this pricing process is evaluated through consumer value perception, production cost of upgrade and other cost and demand factors.

- **Competitive bidding :** it aims at obtaining goods and services at the lowest prices by stimulating competition and by preventing favouritism .

Objective of pricing : (give our own explanation)

- Market penetration objective.
- Market skimming objective.
- Target rate of return objective.
- Price stabilisation objective.
- Market share objective.
- Survival objective

Determination of pricing :

- Costs
- Profit margin
- Market
- Supply and demand
- Competition
- Govt policy

Meaning of skimming pricing strategy: skimming pricing is a pricing strategy in which a marketer sets a relatively higher prices for a product or services at first then lower the prices over a time .

In other words ; the practice of skimming pricing involves charging relatively high prices for a short time where a new, innovative, or much improved product is launched in to the market .

Meaning of penetration pricing : it's a pricing technique of setting a relatively low initial entry prices, often lower than the eventual market prices to attract new customers.

Meaning of dumping : it's a unethical in many countries an illegal practice in pricing . it is a informal name for the practice of selling a product in a foreign market or country for less than either a) the price in domestic country b) cost of making the product it's a illegal in some countries because they want to protect their own industries from such competition .

Meaning of price leadership : it is the situation in which a market leader sets the price of a product or services for which competitors feels compelled to match that prices.

Important questions :

1) What is penetration price?
2) What is going rate pricing?
3) Give the meaning of pricing ?
4) What is price leadership ?
5) What is skimming pricing ?
6) What is dumping ?

Important question for 5 -15 marks :

1) Explain the methods of pricing ?
2) Explain the objectives of pricing ?
3) Discuss the objectives of pricing policy ?
4) What is meant by pricing policy ? explain the general consideration involved in formulating the pricing policy ?
5) Explain the various phases of product life cycle with diagram ?

UNIT 6

BUSINESS CYCLE

Meaning:

Business cycle refers to a predicable long term pattern of alternating periods of economic growth and decline, characterised by changing employment industrial productivity and interest rate.

Definition:

According to '**Leeynes**', "A business is composed of periods of good trade characterised by rising prices and low unemployment percentage and also in the periods of bad trade characterised by decreasing prices and increases unemployment percentage."

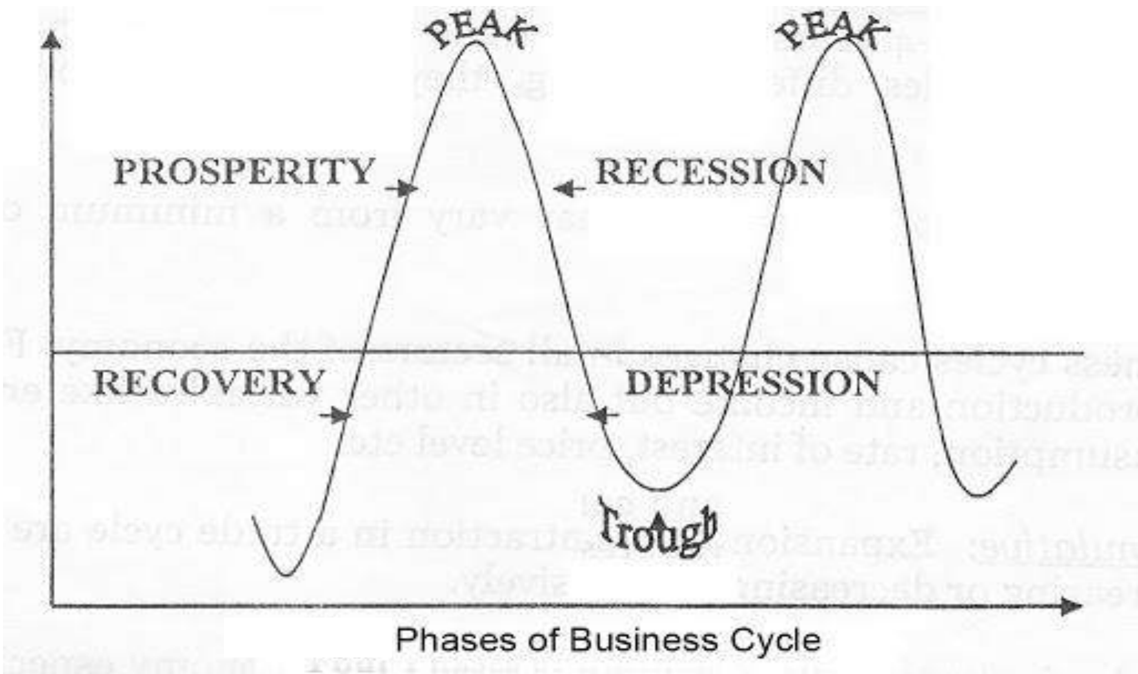
(OR)

According to '**Gordon**', 'Business consist of recurring alternation of expansion and contraction in aggregate economic activity the alternative movements in each direction being self reinforcing and pervading virtually all parts of the economy."

Features of business cycle:

1. It is a wave like movement.
2. It is embracing: it covers the entire economy. The entire business of the economy acts like a living organism hence any change in one part of the economy affects the entire economy.
3. It occurs periodically.
4. It is to be noted that different trade cycle or similar but not identical in their nature.
5. The effect of different life cycle is in different activity.
6. It is international in character.
7. The downward movement is more sudden and violent then the change from downward to upward.
8. It is characterised by the presence of a crisis according to Lord Keynes

Stages of Business Cycle



1. Depression
2. Recovery
3. Prosperity or full employment
4. Boom or overfull employment
5. Recession

Stage 1 Depression

It is the first phase of a trade cycle. According to '**prof. Haberler**', " Depression is a state of offers in which the real income consumers or value of production per head and the rate of employment are falling during depression all construction activities comes to a halt stage." Capital goods industries suffer more than consumer goods industry.

Features:

- A sharp reduction in the value of out trade and other transactions.
- An increases in the level of unemployment
- Reduction in the aggregate income that is wages and profit in a few cases profit turns to be negative.
- A drop in prices of most of the products and fall in interest rate.
- A decline in marginal efficiency of capital and hence volume of investment.
- Absence of incentive for production as the market become dull.

- A low demand for loans, surplus, cash balance with bank leading to a contraction in the creation of bank credit.
- A high rate of business failure.
- An increasing difficulty in returning old debts from debtors.
- A decline in the level of investment in stock as it becomes less attractive and less profit and also reduces the deposit with the bank and other financial institutions.

Stage 2 Recovery

After a period of depression recovery starts it is the period where in economic activities receive stimulus and recover from the shock. This is the turning point from depression towards up swimming. Recovery helps to restart the confidence of the business and create a favourable climate from business venture as a result business people takes more risk and invest more low wages, low interest rate and low production cost recovery in marginal efficiency of capital industries the business people to take up ideas

Features

- Increase in government expenditure so as to increase purchasing power in the hands of customers.
- Change in production techniques and business strategies.
- Diversification in investment.
- Exploitation of new sources of energy.
- New innovations, developing new product or services, new marketing strategies.

Stage 3 Prosperity of full employment

The cumulative process of recovery continues till the economy reaches full employment. Full employment means it is a situation where in all available resources are fully employed at the current wage rates.

According to '**prof. Haberler**', "Prosperity is a state of affairs in which the real income consumed produced and the level of employment are raising and there is no ideal resources."

Features:

- A high level of output, income, employment and trade.
- A high level of purchasing power, consumption, expenditure and effective demand.
- A high level of marginal efficiency of capital and volume of investment.
- An increasing in the level of investors of both input and output.
- A raise in interest rate.
- Firms operate almost at full capacity along with its production.
- There is all round expansion development growth and prosperity in the economy.

Everyone seems to be happy in during this period.

Stage 4 Boom of overfull employment

Business optimum stimulates further investment leading to rapid expansion in all spheres of business activities during the stage of full employment unutilised capacity gradually disappears.

Features

- Prices, wages, interest, profit, move in upward direction.
- Marginal efficiency of capital raises leading to business expansion.
- Business people borrow more and invest.
- There is a higher output of income and employment, living standard of people increases.
- There is higher purchasing power and level of effective demand will increase.
- It is a symptom of end of the prosperity stage and the beginning of recession stage.

Stage 5 Recession

It is the period of time where in the aggregate level of economic activity starts declining. There is contraction or slowing down of business activities. There is imbalance between supply and demand. The cancellation of orders for the inputs by the producers of consumable goods create a chain reaction in the input market because the income of the employees or consumer is in decline stage.

Causes of business cycle:

1. **William Stanley Jevons** points out those climatic conditions good or bad create boom and depression.
2. **Pigon** is of the opinion that variations in business confidence over optimism and over pessimism and other psychological factors cause fluctuation in business
3. **Schumpeter** highlights that cyclical fluctuations are caused by innovations carried out in industrial and commercial organisations.
4. According to **JA Hobson** business cycles are due to either under consumption or over consumption.
5. In the opinion of **Howtrey** non-monetary factors such as wars, earthquakes, strikes, crop failures etc may only cause partial or temporary fluctuation but substantial changes in total money supply in an economy are one of the major causes for cyclical oscillations or alternate phase of prosperity and depression of good and bad trade conditions.

6. According to **Prof. Hayele** business cycles are caused by the excess of investment over voluntary savings.
7. According to **Lord Keynes** Business cycles are caused by variations in the rate of investment which are caused by fluctuations in marginal efficiency of capital and interest rate.
8. **JR Hicks** is of the opinion that autonomous investment and induced investment cause cyclical fluctuation in economic activity via multiplier and accelerator respectively.
9. **Mitchell** recognises the fact that different parts if an economy are inter related and inter-connected and as such any maladjustment started in one part spreads out to the entire economy.
10. **Kaldor** stress that changes in the stock of capital brings about changes in the level of savings and investment which in its run causes variations in the level of output income and employment in an economy.
11. **Samuelson** is of the opinion that either multiplier or accelerator can explain the process of cyclical fluctuations in any economy on the other hand these two forces working together can satisfactory explain the whole income generation and income fluctuation.
12. **Friedman and Schwartz** observes that a change in the total stock of money supply will have its rapid transmission effect on the level of income and prices in an economy.

Measures to control business cycle:

Control of business cycle has become an important objective of most all economies at present broadly speaking the remedial measures can be classified under three heads they are:- monetary, Fiscal and Miscellaneous measures.

1. **Monetary measures:**

   According to Hawtrey, Hicles and many others expansion and contraction of supply of money is the major cause for the operation of business cycles.

   a. <u>Monetary policy and the expansionary phase:</u>

      When the economy is moving fast in the upward direction the monetary measures should aim at:

      i. Restricting the issue of legal tender money.
      ii. Putting restrictions to the expansion of bank credit by adopting both quantitative and qualitative techniques of credit control. As expansionary phase is mainly supported by bank credit adoption of a dear money policy can put an effective check in further expansion. A rise in the bank rate by raising the lending rates of the commercial

banks, making credit costly will have a discouraging effect in more borrowings a check can be imposed on the liquidity position of the commercial banks by raising the cash reserve ratio (CRR) and Statutory Liquidity Ratio (SLR) open market sale of margin requirements, rationing of credit, moral suasion, direct action, publicity etc. can also be used efficiently to tighten the credit situation in the economy. Apart from these direct measures indirect measures like wage control, price control etc can also be adopted to put a check on the inflationary trend in the economy such monetary measures are found fairly successful in controlling unwieldy expansion of the economy many countries like U.K, USA France, Germany and India have used monetary measures to control inflation.

b. <u>Monetary Policy and the phase of depression:</u>

During the period of depression to enlarge employment opportunities and raise the level of income all out measures are to adopted in increases the level of investment to encourage investment activity the central bank has to follow a cheap money policy. The bank rate and the lending rates of the commercial banks should be reduced money should be made available freely by reducing the CRR and SLR through open market sale of securities, cash reserves with the banks should be increased to enable them to lend money easily for various investment activities various qualitative techniques of credit control like reducing the margin requirements moral suasion etc may be adopted to encourage businessmen to borrow and invest.

Cheap money policy to induce businessmen to borrow and invest is not very effective as investment is more guided by the marginal efficiency of capital than the rate of interest because of low level of income and low prices and the low profit margins entrepreneurs do not come forward to borrow and invest in spite of the low rates of interest. One can take a horse to the water but cannot induce the public horse to have it, thus monetary policy as a remedy to solve depression has its own limitation.

2. **Fiscal Policy:**

During the period of inflation or uptrend in the economy when the private enterprise is over enthusiastic and there is over expansion and over production government can use taxation and licensing policy as very effective instruments to check such unwidely growth price control measures can be adopted government should adopt surplus budget reduce public expenditure and resort to public borrowings the cumulative result of these measures would reduce the supply of money in circulation purchasing power and demand.

On the contrary during the period of depression government should adopt deficit budget, increase the volume of public expenditure, redeem public debt and resort to external borrowings, indulge in a moderate dose deficit financing, reduce tax rates, great subsidies, development rebates, tax concessions, tax reliefs and fright concessions etc. As a result of these measures supply of money in circulation will increase. This in its turn would raise the purchasing power, demand for goods and services production and employment etc J.M.Keynes recommended a number of public works programmes to be launched by the government to cure depression.

3. **Physical Controls:**

   During the period of inflation a price control policy has to be adopted where as during depression A price support policy has to be followed during the period of contraction unemployment insurance schemes, proper management of savings, investment, production, distribution, expansion of income and employment etc are needed depending upon the nature of economic fluctuations.

4. **Miscellaneous Measures:**
   a. Introduction of automatic stabilizers An Automatic stabilizer(or built in stabilizer) is an economic shock absorber that helps to smoothen the cyclical business fluctuation of its own accord, without requiring deliberate action on the part of the government ex: progressive taxation policy, unemployment, insurance scheme adopted in India.
   b. Price support policy followed in during the post war period to fight the prospectus of depression.
   c. The policy of stabilization of the prices of agricultural products in India through procurement and building up of buffer stocks aim at economic stability.
   d. Foreign aid is also used for influencing the aggregate demand and supply of goods in a country.
   e. Granting of aid might help in recovering from slump.