UNIT-I

INTRODUCTION TO MANAGERIAL ECONOMICS

1) Define managerial economics and explain its characteristics & scope.

Managerial economics is designed to provide a rigorous treatment of those aspects of economic theory and analysis that are most use for managerial decision analysis says J. L. Pappas and E. F. Brigham.

Managerial Economics, therefore, focuses on those tools and techniques, which are useful in decision-making.

Nature of Managerial Economics

Managerial economics is, perhaps, the youngest of all the social sciences. Since it originates from Economics, it has the basis features of economics, such as assuming that other things remaining the same (or the Latin equivalent ceteris paribus). This assumption is made to simplify the complexity of the managerial phenomenon under study in a dynamic business environment so many things are changing simultaneously. This set a limitation that we cannot really hold other things remaining the same. In such a case, the observations made out of such a study will have a limited purpose or value. Managerial economics also has inherited this problem from economics.

Further, it is assumed that the firm or the buyer acts in a rational manner (which normally does not happen). The buyer is carried away by the advertisements, brand loyalties, incentives and so on, and, therefore, the innate behaviour of the consumer will be rational is not a realistic assumption. Unfortunately, there are no other alternatives to understand the subject other than by making such assumptions. This is because the behaviour of a firm or a consumer is a complex phenomenon.

The other features of managerial economics are explained as below:

- ***(a) Close to microeconomics***: Managerial economics is concerned with finding the solutions for different managerial problems of a particular firm. Thus, it is more close to microeconomics.
- ***(b) Operates against the backdrop of macroeconomics***: The macroeconomics conditions of the economy are also seen as limiting factors for the firm to operate. In other words, the managerial economist has to be aware of the limits set by the macroeconomics conditions such as government industrial policy, inflation and so on.
- ***(c) Normative statements***: A normative statement usually includes or implies the words 'ought' or 'should'. They reflect people's moral attitudes and are expressions of what a team of people ought to do. For instance, it deals with statements such as 'Government of India should open up the economy. Such statement are based on value judgments and express views of what is 'good' or 'bad', 'right' or ' wrong'. One problem with normative statements is that they cannot to verify by looking at the facts, because they mostly deal with the future. Disagreements about such statements are usually settled by voting on them.
- ***(d) Prescriptive actions***: Prescriptive action is goal oriented. Given a problem and the objectives of the firm, it suggests the course of action from the available alternatives for optimal solution. If does not merely mention the concept, it also explains whether the concept can be applied in a given context on not. For instance, the fact that variable costs are marginal costs can be used to judge the feasibility of an export order.

(e) ***Applied in nature***: 'Models' are built to reflect the real life complex business situations and these models are of immense help to managers for decision-making. The different areas where models are extensively used include inventory control, optimization, project management etc. In managerial economics, we also employ case study methods to conceptualize the problem, identify that alternative and determine the best course of action.

(f) ***Offers scope to evaluate each alternative***: Managerial economics provides an opportunity to evaluate each alternative in terms of its costs and revenue. The managerial economist can decide which is the better alternative to maximize the profits for the firm.

(g) ***Interdisciplinary***: The contents, tools and techniques of managerial economics are drawn from different subjects such as economics, management, mathematics, statistics, accountancy, psychology, organizational behavior, sociology and etc.

(h) ***Assumptions and limitations***: Every concept and theory of managerial economics is based on certain assumption and as such their validity is not universal. Where there is change in assumptions, the theory may not hold good at all.

Scope of Managerial Economics:

The scope of managerial economics refers to its area of study. Managerial economics refers to its area of study. Managerial economics, Provides management with a strategic planning tool that can be used to get a clear perspective of the way the business world works and what can be done to maintain profitability in an ever-changing environment. Managerial economics is primarily concerned with the application of economic principles and theories to five types of resource decisions made by all types of business organizations.

a. The selection of product or service to be produced.
b. The choice of production methods and resource combinations.
c. The determination of the best price and quantity combination
d. Promotional strategy and activities.
e. The selection of the location from which to produce and sell goods or service to consumer.

The production department, marketing and sales department and the finance department usually handle these five types of decisions.
The scope of managerial economics covers two areas of decision making

a. Operational or Internal issues
b. Environmental or External issues

a. Operational issues:
Operational issues refer to those, which wise within the business organization and they are under the control of the management. Those are:

1. Theory of demand and Demand Forecasting

2. Pricing and Competitive strategy
3. Production cost analysis
4. Resource allocation
5. Profit analysis
6. Capital or Investment analysis
7. Strategic planning

1. Demand Analyses and Forecasting:

A firm can survive only if it is able to the demand for its product at the right time, within the right quantity. Understanding the basic concepts of demand is essential for demand forecasting. Demand analysis should be a basic activity of the firm because many of the other activities of the firms depend upon the outcome of the demand fore cost. Demand analysis provides:

1. The basis for analyzing market influences on the firms; products and thus helps in the adaptation to those influences.
2. Demand analysis also highlights for factors, which influence the demand for a product. This helps to manipulate demand. Thus demand analysis studies not only the price elasticity but also income elasticity, cross elasticity as well as the influence of advertising expenditure with the advent of computers, demand forecasting has become an increasingly important function of managerial economics.

2. Pricing and competitive strategy:

Pricing decisions have been always within the preview of managerial economics. Pricing policies are merely a subset of broader class of managerial economic problems. Price theory helps to explain how prices are determined under different types of market conditions. Competitions analysis includes the anticipation of the response of competitions the firm's pricing, advertising and marketing strategies. Product line pricing and price forecasting occupy an important place here.

3. Production and cost analysis:

Production analysis is in physical terms. While the cost analysis is in monetary terms cost concepts and classifications, cost-out-put relationships, economies and diseconomies of scale and production functions are some of the points constituting cost and production analysis.

4. Resource Allocation:

Managerial Economics is the traditional economic theory that is concerned with the problem of optimum allocation of scarce resources. Marginal analysis is applied to the problem of determining the level of output, which maximizes profit. In this respect linear programming techniques has been used to solve optimization problems. In fact lines programming is one of the most practical and powerful managerial decision making tools currently available.

5. Profit analysis:

Profit making is the major goal of firms. There are several constraints here an account of competition from other products, changing input prices and changing business environment hence in spite of careful planning, there is always certain risk involved. Managerial economics deals with techniques of averting of minimizing risks. Profit theory guides in the measurement and management of profit, in calculating the pure return on capital, besides future profit planning.

6. Capital or investment analyses:

Capital is the foundation of business. Lack of capital may result in small size of operations. Availability of capital from various sources like equity capital, institutional finance etc. may help to undertake large-scale operations. Hence efficient allocation and management of capital is one of the most important tasks of the managers. The major issues related to capital analysis are:

1. The choice of investment project
2. Evaluation of the efficiency of capital
3. Most efficient allocation of capital

Knowledge of capital theory can help very much in taking investment decisions. This involves, capital budgeting, feasibility studies, analysis of cost of capital etc.

7. Strategic planning:

Strategic planning provides management with a framework on which long-term decisions can be made which has an impact on the behavior of the firm. The firm sets certain long-term goals and objectives and selects the strategies to achieve the same. Strategic planning is now a new addition to the scope of managerial economics with the emergence of multinational corporations. The perspective of strategic planning is global.

It is in contrast to project planning which focuses on a specific project or activity. In fact the integration of managerial economics and strategic planning has given rise to be new area of study called corporate economics.

B. Environmental or External Issues:

An environmental issue in managerial economics refers to the general business environment in which the firm operates. They refer to general economic, social and political atmosphere within which the firm operates. A study of economic environment should include:

a. The type of economic system in the country.
b. The general trends in production, employment, income, prices, saving and investment.

c. Trends in the working of financial institutions like banks, financial corporations, insurance companies
d. Magnitude and trends in foreign trade;
e. Trends in labour and capital markets;
f. Government's economic policies viz. industrial policy monetary policy, fiscal policy, price policy etc.

The social environment refers to social structure as well as social organization like trade unions, consumer's co-operative etc. The Political environment refers to the nature of state activity, chiefly states' attitude towards private business, political stability etc.

The environmental issues highlight the social objective of a firm i.e.; the firm owes a responsibility to the society. Private gains of the firm alone cannot be the goal.

The environmental or external issues relate managerial economics to macro economic theory while operational issues relate the scope to micro economic theory. The scope of managerial economics is ever widening with the dynamic role of big firms in a society.

2)Explain the relationship of Managerial Economics with other disciplines

Managerial economics relationship with other disciplines:

Many new subjects have evolved in recent years due to the interaction among basic disciplines. While there are many such new subjects in natural and social sciences, managerial economics can be taken as the best example of such a phenomenon among social sciences. Hence it is necessary to trace its roots and relation ship with other disciplines.

1. Relationship with economics:

The relationship between managerial economics and economics theory may be viewed form the point of view of the two approaches to the subject Viz. Micro Economics and Marco Economics. Microeconomics is the study of the economic behavior of individuals, firms and other such micro organizations. Managerial economics is rooted in Micro Economic theory. Managerial Economics makes use to several Micro Economic concepts such as marginal cost, marginal revenue, elasticity of demand as well as price theory and theories of market structure to name only a few. Macro theory on the other hand is the study of the economy as a whole. It deals with the analysis of national income, the level of employment, general price level, consumption and investment in the economy and even matters related to international trade, Money, public finance, etc.

The relationship between managerial economics and economics theory is like that of engineering science to physics or of medicine to biology. Managerial economics has an applied bias and its wider scope lies in applying economic theory to solve real life problems of enterprises. Both managerial economics and economics deal with problems of scarcity and resource allocation.

2. Management theory and accounting:

Managerial economics has been influenced by the developments in management theory and accounting techniques. Accounting refers to the recording of pecuniary transactions of the firm in certain books. A proper knowledge of

accounting techniques is very essential for the success of the firm because profit maximization is the major objective of the firm.

Managerial Economics requires a proper knowledge of cost and revenue information and their classification. A student of managerial economics should be familiar with the generation, interpretation and use of accounting data. The focus of accounting within the firm is fast changing from the concepts of store keeping to that if managerial decision making, this has resulted in a new specialized area of study called "Managerial Accounting".

3. Managerial Economics and mathematics:

The use of mathematics is significant for managerial economics in view of its profit maximization goal long with optional use of resources. The major problem of the firm is how to minimize cost, hoe to maximize profit or how to optimize sales. Mathematical concepts and techniques are widely used in economic logic to solve these problems. Also mathematical methods help to estimate and predict the economic factors for decision making and forward planning.

Mathematical symbols are more convenient to handle and understand various concepts like incremental cost, elasticity of demand etc., Geometry, Algebra and calculus are the major branches of mathematics which are of use in managerial economics. The main concepts of mathematics like logarithms, and exponentials, vectors and determinants, input-output models etc., are widely used. Besides these usual tools, more advanced techniques designed in the recent years viz. linear programming, inventory models and game theory fine wide application in managerial economics.

4. Managerial Economics and Statistics:

Managerial Economics needs the tools of statistics in more than one way. A successful businessman must correctly estimate the demand for his product. He should be able to analyses the impact of variations in tastes. Fashion and changes in income on demand only then he can adjust his output. Statistical methods provide and sure base for decision-making. Thus statistical tools are used in collecting data and analyzing them to help in the decision making process.

Statistical tools like the theory of probability and forecasting techniques help the firm to predict the future course of events. Managerial Economics also make use of correlation and multiple regressions in related variables like price and demand to estimate the extent of dependence of one variable on the other. The theory of probability is very useful in problems involving uncertainty.

5. Managerial Economics and Operations Research:

Taking effectives decisions is the major concern of both managerial economics and operations research. The development of techniques and concepts such as linear programming, inventory models and game theory is due to the development of this new subject of operations research in the postwar years. Operations research is concerned with the complex problems arising out of the management of men, machines, materials and money.

Operation research provides a scientific model of the system and it helps managerial economists in the field of product development, material management, and inventory control, quality control, marketing and demand analysis. The varied tools of operations Research are helpful to managerial economists in decision-making.

6. Managerial Economics and the theory of Decision- making:

The Theory of decision-making is a new field of knowledge grown in the second half of this century. Most of the economic theories explain a single goal for the consumer i.e., Profit maximization for the firm. But the theory of decision-making is developed to explain multiplicity of goals and lot of uncertainty.

As such this new branch of knowledge is useful to business firms, which have to take quick decision in the case of multiple goals. Viewed this way the theory of decision making is more practical and application oriented than the economic theories.

7. Managerial Economics and Computer Science:

Computers have changes the way of the world functions and economic or business activity is no exception. Computers are used in data and accounts maintenance, inventory and stock controls and supply and demand predictions. What used to take days and months is done in a few minutes or hours by the computers. In fact computerization of business activities on a large scale has reduced the workload of managerial personnel. In most countries a basic knowledge of computer science, is a compulsory programme for managerial trainees.

To conclude, managerial economics, which is an offshoot traditional economics, has gained strength to be a separate branch of knowledge. It strength lies in its ability to integrate ideas from various specialized subjects to gain a proper perspective for decision-making.

A successful managerial economist must be a mathematician, a statistician and an economist. He must be also able to combine philosophic methods with historical methods to get the right perspective only then; he will be good at predictions. In short managerial practices with the help of other allied sciences.

3)Define demand and explain the concept of demand types. Explain about the law of demand and its exceptions?

DEMAND ANALYSIS

Introduction & Meaning:

Demand in common parlance means the desire for an object. But in economics demand is something more than this. According to Stonier and Hague, “Demand in economics means demand backed up by enough money to pay for the goods demanded”. This means that the demand becomes effective only it if is backed by the purchasing power in addition to this there must be willingness to buy a commodity.

Thus demand in economics means the desire backed by the willingness to buy a commodity and the purchasing power to pay. In the words of “Benham” “The demand for anything at a given price is the amount of it which will be bought per

unit of time at that Price". (Thus demand is always at a price for a definite quantity at a specified time.) Thus demand has three essentials – price, quantity demanded and time. Without these, demand has to significance in economics.

LAW of Demand:

Law of demand shows the relation between price and quantity demanded of a commodity in the market. In the words of Marshall, "the amount demand increases with a fall in price and diminishes with a rise in price".

A rise in the price of a commodity is followed by a reduction in demand and a fall in price is followed by an increase in demand, if a condition of demand remains constant.

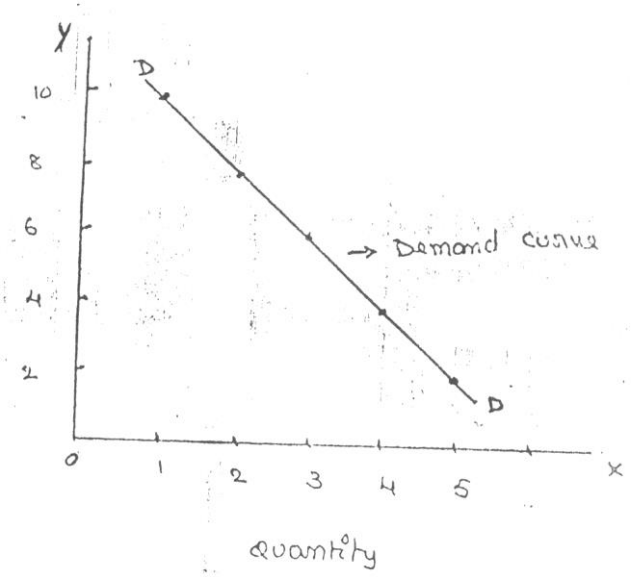
The law of demand may be explained with the help of the following demand schedule.

Demand Schedule.

Price of Appel (In. Rs.)	Quantity Demanded
10	1
8	2
6	3
4	4
2	5

When the price falls from Rs. 10 to 8 quantity demand increases from 1 to 2. In the same way as price falls, quantity demand increases on the basis of the demand schedule we can draw the demand curve.

Price



The demand curve DD shows the inverse relation between price and quantity demand of apple. It is downward sloping.

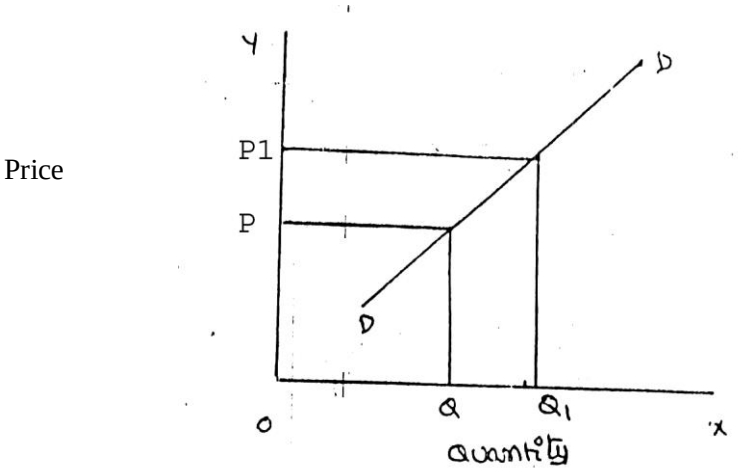
Assumptions:

Law is demand is based on certain assumptions:

1. This is no change in consumers taste and preferences.
2. Income should remain constant.
3. Prices of other goods should not change.
4. There should be no substitute for the commodity
5. The commodity should not confer at any distinction
6. The demand for the commodity should be continuous
7. People should not expect any change in the price of the commodity

Exceptional demand curve:

Some times the demand curve slopes upwards from left to right. In this case the demand curve has a positive slope.



When price increases from OP to Op1 quantity demanded also increases from to OQ1 and vice versa. The reasons for exceptional demand curve are as follows.

1. Giffen paradox:

The Giffen good or inferior good is an exception to the law of demand. When the price of an inferior good falls, the poor will buy less and vice versa. For example, when the price of maize falls, the poor are willing to spend more on superior goods than on maize if the price of maize increases, he has to increase the quantity of money spent on it. Otherwise he will have to face starvation. Thus a fall in price is followed by reduction in quantity demanded and vice versa. "Giffen" first explained this and therefore it is called as Giffen's paradox.

2. Veblen or Demonstration effect:

'Veblan' has explained the exceptional demand curve through his doctrine of conspicuous consumption. Rich people buy certain good because it gives social distinction or prestige for example diamonds are bought by the richer class for the prestige it possess. It the price of diamonds falls poor also will buy is hence they will not give prestige. Therefore, rich people may stop buying this commodity.

3. Ignorance:

Sometimes, the quality of the commodity is Judge by its price. Consumers think that the product is superior if the price is high. As such they buy more at a higher price.

4. Speculative effect:

If the price of the commodity is increasing the consumers will buy more of it because of the fear that it increase still further, Thus, an increase in price may not be accomplished by a decrease in demand.

5. Fear of shortage:

During the times of emergency of war People may expect shortage of a commodity. At that time, they may buy more at a higher price to keep stocks for the future.

5. Necessaries:

In the case of necessaries like rice, vegetables etc. people buy more even at a higher price.

Factors Affecting Demand:

There are factors on which the demand for a commodity depends. These factors are economic, social as well as political factors. The effect of all the factors on the amount demanded for the commodity is called Demand Function.

These factors are as follows:

1. Price of the Commodity:

The most important factor-affecting amount demanded is the price of the commodity. The amount of a commodity demanded at a particular price is more properly called price demand. The relation between price and demand is called the Law of Demand. It is not only the existing price but also the expected changes in price, which affect demand.

2. Income of the Consumer:

The second most important factor influencing demand is consumer income. In fact, we can establish a relation between the consumer income and the demand at different levels of income, price and other things remaining the same. The demand for a normal commodity goes up when income rises and falls down when income falls. But in case of Giffen goods the relationship is the opposite.

3. Prices of related goods:

The demand for a commodity is also affected by the changes in prices of the related goods also. Related goods can be of two types:

(i). Substitutes which can replace each other in use; for example, tea and coffee are substitutes. The change in price of a substitute has effect on a commodity's demand in the same direction in which price changes. The rise in price of coffee shall raise the demand for tea;

(ii). Complementary foods are those which are jointly demanded, such as pen and ink. In such cases complementary goods have opposite relationship between price of one commodity and the amount demanded for the other. If the price of pens goes up, their demand is less as a result of which the demand for ink is also less. The price and demand go in opposite direction. The effect of changes in price of a commodity on amounts demanded of related commodities is called Cross Demand.

4. Tastes of the Consumers:

The amount demanded also depends on consumer's taste. Tastes include fashion, habit, customs, etc. A consumer's taste is also affected by advertisement. If the taste for a commodity goes up, its amount demanded is more even at the same price. This is called increase in demand. The opposite is called decrease in demand.

5. Wealth:

The amount demanded of commodity is also affected by the amount of wealth as well as its distribution. The wealthier are the people; higher is the demand for normal commodities. If wealth is more equally distributed, the demand for necessaries and comforts is more. On the other hand, if some people are rich, while the majorities are poor, the demand for luxuries is generally higher

.

6. Population:

Increase in population increases demand for necessaries of life. The composition of population also affects demand. Composition of population means the proportion of young and old and children as well as the ratio of men to women. A change in composition of population has an effect on the nature of demand for different commodities.

7. Government Policy:

Government policy affects the demands for commodities through taxation. Taxing a commodity increases its price and the demand goes down. Similarly, financial help from the government increases the demand for a commodity while lowering its price.

8. Expectations regarding the future:

If consumers expect changes in price of commodity in future, they will change the demand at present even when the present price remains the same. Similarly, if consumers expect their incomes to rise in the near future they may increase the demand for a commodity just now.

9. Climate and weather:

The climate of an area and the weather prevailing there has a decisive effect on consumer's demand. In cold areas woolen cloth is demanded. During hot summer days, ice is very much in demand. On a rainy day, ice cream is not so much demanded.

10. State of business:

The level of demand for different commodities also depends upon the business conditions in the country. If the country is passing through boom conditions, there will be a marked increase in demand. On the other hand, the level of demand goes down during depression.

Elasticity of Demand

Definition: The **Elasticity of Demand** is a measure of change in the quantity demanded in response to the change in the price of the commodity. Simply, the effect of a change of price on the quantity demanded is called as the elasticity of demand.

Elasticity of demand explains the relationship between a change in price and consequent change in amount demanded. "Marshall" introduced the concept of elasticity of demand. Elasticity of demand shows the extent of change in quantity demanded to a change in price.

In the words of "Marshall", "The elasticity of demand in a market is great or small according as the amount demanded increases much or little for a given fall in the price and diminishes much or little for a given rise in Price"

Marshall, a renowned economist, has suggested a mathematical method to measure the elasticity of demand:

$$E = \frac{\text{Percentage change in demand for a product}}{\text{Percentage change in the price of the product}}$$

According to this formula, the elasticity of demand can be defined as a percentage change in demand as a result of the percentage change in price. Numerically, it can be written as:

$$E = \frac{\Delta Q}{\Delta P} X \frac{P}{Q}$$

Where,

$\Delta Q = Q_1 - Q_0$
$\Delta P = P_1 - P_0$
Q_1= New quantity
Q_2= Original quantity
P1 = New price
P0 = Original price

Elastic demand: A small change in price may lead to a great change in quantity demanded. In this case, demand is elastic.

In-elastic demand: If a big change in price is followed by a small change in demanded then the demand in "inelastic".

Types of Elasticity of Demand:

There are three types of elasticity of demand:

1. Price elasticity of demand
2. Income elasticity of demand
3. Cross elasticity of demand

1. Price elasticity of demand:

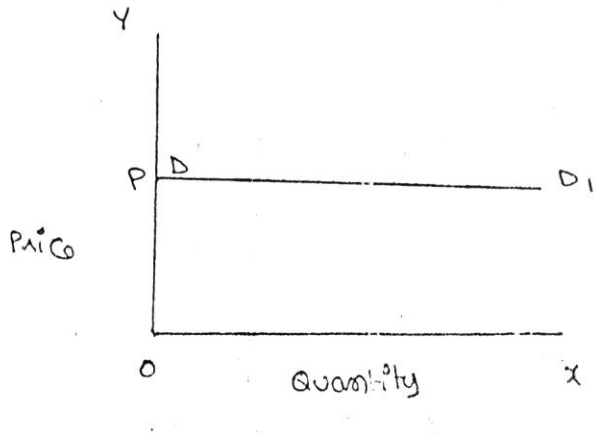
Marshall was the first economist to define price elasticity of demand. Price elasticity of demand measures changes in quantity demand to a change in Price. It is the ratio of percentage change in quantity demanded to a percentage change in price.

$$\text{Price elasticity} = \frac{\text{Proportionate change in the quantity demand of commodity}}{\text{Proportionate change in the price of commodity}}$$

There are five cases of price elasticity of demand

A. Perfectly elastic demand:

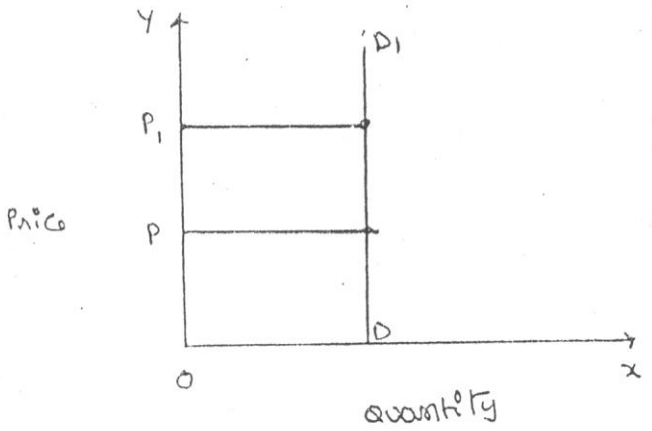
When small change in price leads to an infinitely large change is quantity demand, it is called perfectly or infinitely elastic demand. In this case E=∞



The demand curve DD1 is horizontal straight line. It shows the at "OP" price any amount is demand and if price increases, the consumer will not purchase the commodity.

B. Perfectly Inelastic Demand

In this case, even a large change in price fails to bring about a change in quantity demanded.

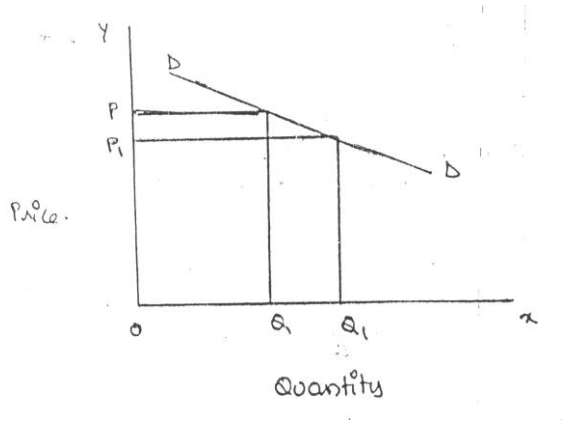


When price increases from 'OP' to 'OP', the quantity demanded remains the same. In other words the response of demand to a change in Price is nil. In this case 'E'=0.

C. Relatively elastic demand:

Demand changes more than proportionately to a change in price. i.e. a small change in price loads to a very big change in the quantity demanded. In this case

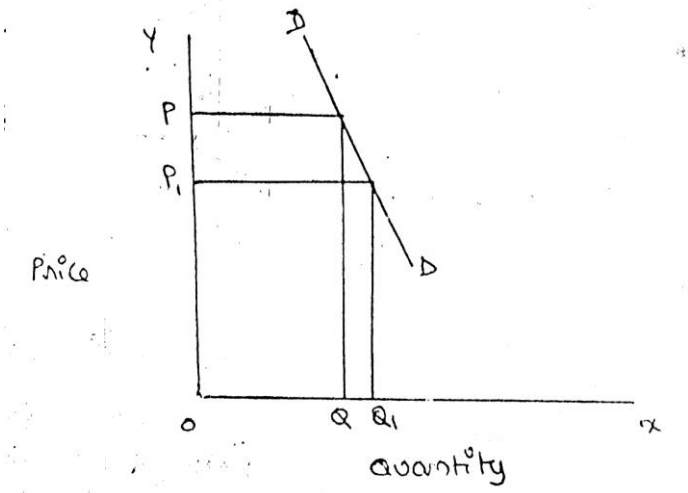
E > 1. This demand curve will be flatter.



When price falls from 'OP' to 'OP', amount demanded in crease from "OQ' to "OQ1' which is larger than the change in price.

D. Relatively in-elastic demand.

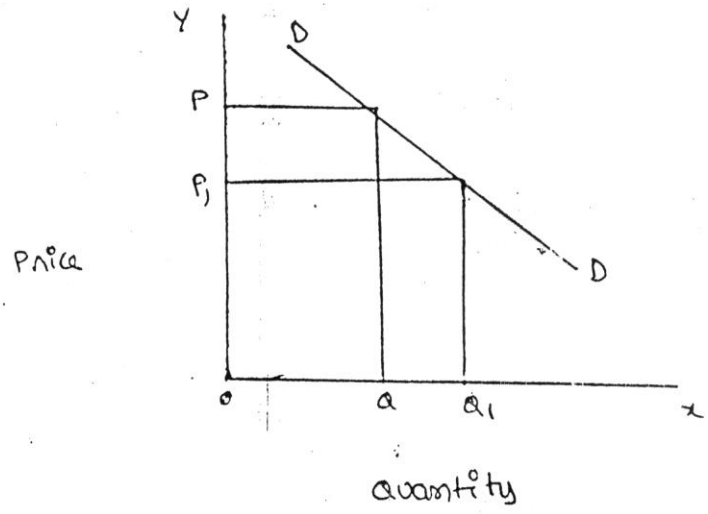
Quantity demanded changes less than proportional to a change in price. A large change in price leads to small change in amount demanded. Here E < 1. Demanded carve will be steeper.



When price falls from "OP' to 'OP1 amount demanded increases from OQ to OQ1, which is smaller than the change in price.

E. Unit elasticity of demand:

The change in demand is exactly equal to the change in price. When both are equal E=1 and elasticity if said to be unitary.



When price falls from 'OP' to 'OP1' quantity demanded increases from 'OP' to 'OP1', quantity demanded increases from 'OQ' to 'OQ1'. Thus a change in price has resulted in an equal change in quantity demanded so price elasticity of demand is equal to unity.

Cross Elasticity of Demand

The cross elasticity of demand is the proportional change in the quantity demanded, relative to the proportional change in the price of another good.

Price elasticity of demand = Percentage change in quantity demanded / percentage change in price of another good = ΔQ1/Q1/ΔP2/P2

If the two goods are **substitutes**, the cross elasticity of demand is positive.
If the two goods are **complements**, the cross elasticity of demand is negative.:

Income Elasticity of Demand

The income elasticity of demand is the proportional change in the quantity demanded, relative to the proportional change in the income.

Income elasticity of demand = Percentage change in quantity demanded / percentages change in the income = ΔQ/Q / ΔI/I

Advertisement Elasticity of Demand

The advertisement elasticity of demand is the proportional change in the quantity demanded, relative to the proportional change in the price of another good.

Advertisement elasticity of demand = Percentaje change in quantity demanded / percentaje change in expenditure in advertising = ΔQ1/Q1 / ΔAd2/Ad2

The quantity demanded increases when the advertising expenses increase. The advertisement elasticity is positive.

Law of supply

The relationship between price and quantity supplied is usually a positive relationship. A rise in price is associated with a rise i quantity supplied.

Definitions

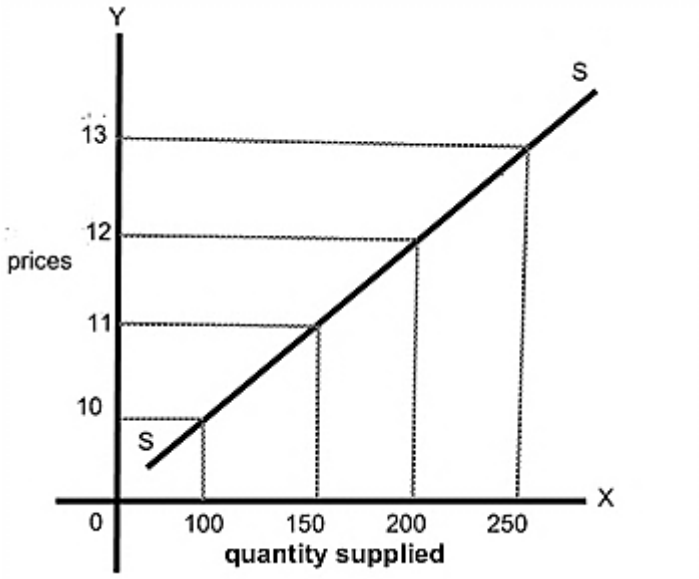
— In the words of **Dooley.** "The *law of supply states that other things being equal the higher the price, the greater the quanti supplied or the lower the price, the smaller the quantity supplied."*

— According to **Lipsey,** *"The law of supply states that other things being equal, the quantity of any commodity that firms will produc and offer for sale is positively related to the commodity's own price, rising when price rises and falling when price falls."*

As the price of good increases, suppliers will attempt to maximize profits by increasing the quantity of the product sold.

TABLE OF DEMAND SCHEDULE

Prices of pens	Quantity supplied
10	100
11	150
12	200
13	250



LAW OF SUPPLY

5)What are the needs for demand forecasting? Explain the various steps involved in demand forecasting.

Demand Forecasting

Introduction:

The information about the future is essential for both new firms and those planning to expand the scale of their production. Demand forecasting refers to an estimate of future demand for the product.

It is an 'objective assessment of the future course of demand". In recent times, forecasting plays an important role in business decision-making. Demand forecasting has an important influence on production planning. It is essential for a firm to produce the required quantities at the right time.

It is essential to distinguish between forecasts of demand and forecasts of sales. Sales forecast is important for estimating revenue cash requirements and expenses. Demand forecasts relate to production, inventory control, timing, reliability of forecast etc. However, there is not much difference between these two terms.

Types of demand Forecasting:

Based on the time span and planning requirements of business firms, demand forecasting can be classified in to 1. Short-term demand forecasting and

2. Long – term demand forecasting.

1. Short-term demand forecasting:

Short-term demand forecasting is limited to short periods, usually for one year. It relates to policies regarding sales, purchase, price and finances. It refers to existing production capacity of the firm. Short-term forecasting is essential for formulating is essential for formulating a suitable price policy. If the business people expect of rise in the prices of raw materials of shortages, they may buy early. This price forecasting helps in sale policy formulation. Production may be undertaken based on expected sales and not on actual sales. Further, demand forecasting assists in financial forecasting also. Prior information about production and sales is essential to provide additional funds on reasonable terms.

2. Long – term forecasting:

In long-term forecasting, the businessmen should now about the long-term demand for the product. Planning of a new plant or expansion of an existing unit depends on long-term demand. Similarly a multi product firm must take into account the demand for different items. When forecast are mode covering long periods, the probability of error is high. It is vary difficult to forecast the production, the trend of prices and the nature of competition. Hence quality and competent forecasts are essential.

Prof. C. I. Savage and T.R. Small classify demand forecasting into time types. They are 1. Economic forecasting, 2. Industry forecasting, 3. Firm level forecasting. Economics forecasting is concerned with the economics, while industrial level forecasting is used for inter-industry comparisons and is being supplied by trade association or chamber of commerce. Firm level forecasting relates to individual firm.

Methods of forecasting:

Several methods are employed for forecasting demand. All these methods can be grouped under survey method and statistical method. Survey methods and statistical methods are further subdivided in to different categories.

1. Survey Method:

Under this method, information about the desires of the consumer and opinion of exports are collected by interviewing them. Survey method can be divided into four type's viz., Option survey method; expert opinion; Delphi method and consumers interview methods.

a. Opinion survey method:

This method is also known as sales-force composite method (or) collective opinion method. Under this method, the company asks its salesman to submit estimate of future sales in their respective territories. Since the forecasts of the salesmen are biased due to their optimistic or pessimistic attitude ignorance about economic developments etc. these estimates are consolidated, reviewed and adjusted by the top executives. In case of wide differences, an average is struck to make the forecasts realistic.

This method is more useful and appropriate because the salesmen are more knowledge. They can be important source of information. They are cooperative. The implementation within unbiased or their basic can be corrected.

B. Expert opinion method:

Apart from salesmen and consumers, distributors or outside experts may also e used for forecasting. In the United States of America, the automobile companies get sales estimates directly from their dealers. Firms in advanced countries make use of outside experts for estimating future demand. Various public and private agencies all periodic forecasts of short or long term business conditions.

C. Delphi Method:

A variant of the survey method is Delphi method. It is a sophisticated method to arrive at a consensus. Under this method, a panel is selected to give suggestions to solve the problems in hand. Both internal and external experts can be the members of the panel. Panel members one kept apart from each other and express their views in an anonymous manner. There is also a coordinator who acts as an intermediary among the panelists. He prepares the questionnaire and sends it to the panelist. At the end of each round, he prepares a summary report. On the basis of the summary report the panel members have to give suggestions. This method has been used in the area of technological forecasting. It has proved more popular in forecasting. It has provided more popular in forecasting non-economic rather than economic variables.

D. Consumers interview method:

In this method the consumers are contacted personally to know about their plans and preference regarding the consumption of the product. A list of all potential buyers would be drawn and each buyer will be approached and asked how much he plans to buy the listed product in future. He would be asked the proportion in which he intends to buy. This method seems to be the most ideal method for forecasting demand.

2. Statistical Methods:

Statistical method is used for long run forecasting. In this method, statistical and mathematical techniques are used to forecast demand. This method relies on post data.

a. Time series analysis or trend projection methods:

A well-established firm would have accumulated data. These data are analyzed to determine the nature of existing trend. Then, this trend is projected in to the future and the results are used as the basis for forecast. This is called as time series analysis. This data can be presented either in a tabular form or a graph. In the time series post data of sales are used to forecast future.

b. Barometric Technique:

Simple trend projections are not capable of forecasting turning paints. Under Barometric method, present events are used to predict the directions of change in future. This is done with the help of economics and statistical indicators. Those are (1) Construction Contracts awarded for building materials (2) Personal income (3) Agricultural Income. (4) Employment (5) Gross national income (6) Industrial Production (7) Bank Deposits etc.

c. Regression and correlation method:

Regression and correlation are used for forecasting demand. Based on post data the future data trend is forecasted. If the functional relationship is analyzed with the independent variable it is simple correction. When there are several independent variables it is multiple correlation. In correlation we analyze the nature of relation between the variables while in regression; the extent of relation between the variables is analyzed. The results are expressed in mathematical form. Therefore, it is called as econometric model building. The main advantage of this method is that it provides the values of the independent variables from within the model itself.

Dis-economies of Scale

Increasing the size of a business or production does not always result in lower costs per unit. Sometimes a business can get increase in cost of production or loss to the organisation, it is called as diseconomies of scale

Diseconomies of scale occur when a business grows so large that the costs per unit increase.

Diseconomies of scale occur because of several reasons; this situation is the result of the difficulties of managing a larger Workforce.

Internal diseconomies of scale

Internal diseconomies occur as the output of the firm is rising.

1. **Interdependency:**

Large firms with many and different departments have the problem with interdependency with each other. A machine failure in the packaging department may result in stopping the whole production line.

2. **Coordination and communication:**

As the business expands communicating between different departments and along the **chain of command** becomes more difficult. There are more layers in the hierarchy that can distort a message and wider **spans of control** for managers. This may result in workers having less clear instructions from management about what they are supposed to do when.

3. **Mismanagement:**

One of the main causes of diseconomies of scale or internal diseconomies is the difficulties of large-scale management. As a firm expands, difficulties of management go on multiplying. In a big firm, it becomes pretty difficult to co-ordinate the work of different sections. It becomes a tough problem to supervise the work spread all over. It adversely affects operational efficiency of the firm. In the words of **Mc Connell,** "*The main factors causing diseconomies of scale have to do with certain management problems which physically arise as a firm becomes a large-scale producer.*"

4. **Industrial relations:**

Because of the lack of contact between senior management and the work force, the workers may not feel commitment to work. Industrial disputes may arise and production may suffer.

5. **Lack of motivation:**

Workers can often feel more isolated and less appreciated in a larger business and so their loyalty and motivation may decrease. It is harder for managers to stay in day-to-day contact with workers and build up a good team environment and sense of belonging. The main result of poor employee motivation is fall in productivity levels and an increase in average labour costs per unit.

6. **Lack of control:** when there is a large number of workers it is easier to escape with not working very hard because it is more difficult for managers to notice shirking.

External diseconomies of scale

External factors beyond the control of a company increases its total costs, as output in the rest of the industry increases. The increase in costs can be associated with market prices increasing for some or all of the factors of production.

For example, as a business increases its output, more pressure might be put on its labor supplies, which would then raise the price of additional output. The availability of raw materials also might cause the cost of production to rise. A mining firm, for example, might first extract minerals that are easy to access. After it is necessary to mine deeper seams to produce more ore, the cost of additional output will rise.

As output increases in an industry, each of the factors of production, land, labour, capital and enterprise, become scarcer. As they become scarce (unavailability), their prices increase.

UNIT-II

PRODUCTION AND COST ANALYSIS

Production Function

Definition: The **Production Function** shows the relationship between the quantity of output and the different quantities of inputs used in the production process. In other words, it means, the total output produced from the chosen quantity of various inputs.

Generally, production is the transformation of raw material into the finished goods. These raw materials are classified as land, labor, capital or natural resources. These may be fixed or variable depending upon the nature of the business.

This function establishes the physical relationship between these inputs and the output. The efficiency of this relationship depends on the different quantities used in the production process, the quantities of output and the productivity at each point. It can be shown algebraically:

$O = f (I_1, I_2, I_3, I_4 \ldots\ldots Z_n)$

Where, O = quantity of output

I_1, I_2, I_3 = Quantity of different inputs

It can be classified on the basis of the substitutability of the inputs by other inputs:

TYPES OF PRODUCTION FUNCRIONS

1. Production function with one variable OR Law of variable proportions
2. Production function with two variables
3. Production function with multiple or returns to scale

6)What do you mean by production and Explain production function with one variable inputs?

Law of variable proportions:

The law of variable proportions which is a new name given to old classical concept of "Law of diminishing returns has played a vital role in the modern economics theory. Assume that a firms production function consists of fixed quantities of all inputs (land, equipment, etc.) except labour which is a variable input when the firm expands output by employing more and more labour it alters the proportion between fixed and the variable inputs. The law can be stated as follows:

"When total output or production of a commodity is increased by adding units of a variable input while the quantities of other inputs are held constant, the increase in total production becomes after some point, smaller and smaller".

"If equal increments of one input are added, the inputs of other production services being held constant, beyond a certain point the resulting increments of product will decrease i.e. the marginal product will diminish". (**G. Stigler**)

"As the proportion of one factor in a combination of factors is increased, after a point, first the marginal and then the average product of that factor will diminish". (**F. Benham**)

The law of variable proportions refers to the behaviour of output as the quantity of one Factor is increased Keeping the quantity of other factors fixed and further it states that the marginal product and average product will eventually do cline. This law states three types of productivity an input factor – Total, average and marginal physical productivity.

Assumptions of the Law: The law is based upon the following assumptions:

i) The state of technology remains constant. If there is any improvement in technology, the average and marginal out put will not decrease but increase.
ii) Only one factor of input is made variable and other factors are kept constant. This law does not apply to those cases where the factors must be used in rigidly fixed proportions.
iii) All units of the variable factors are homogenous.

Three stages of law:

The behaviors of the Output when the varying quantity of one factor is combines with a fixed quantity of the other can be divided in to three district stages. The three stages can be better understood by following the table.

Fixed factor	Variable factor (Labour)	Total product	Average Product	Marginal Product	
1	1	100	100	-	Stage I
1	2	220	120	120	
1	3	270	90	50	
1	4	300	75	30	Stage II
1	5	320	64	20	
1	6	330	55	10	
1	7	330	47	0	Stage
1	8	320	40	-10	III

Above table reveals that both average product and marginal product increase in the beginning and then decline of the two marginal products drops of faster than average product. Total product is maximum when the farmer employs 6^{th} worker, nothing is produced by the 7^{th} worker and its marginal productivity is zero, whereas marginal product of 8^{th} worker is '-10', by just creating credits 8^{th} worker not only fails to make a positive contribution but leads to a fall in the total output.

Production function with one variable input and the remaining fixed inputs is illustrated as below

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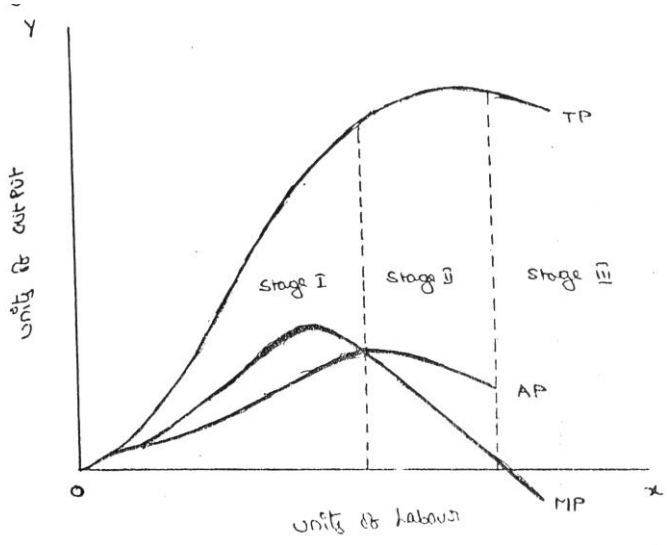


From the above graph the law of variable proportions operates in three stages. In the first stage, total product increases at an increasing rate. The marginal product in this stage increases at an increasing rate resulting in a greater increase in total product. The average product also increases. This stage continues up to the point where average product is equal to marginal product. The law of increasing returns is in operation at this stage. The law of diminishing returns starts operating from the second stage awards. At the second stage total product increases only at a diminishing rate. The average product also declines. The second stage comes to an end where total product becomes maximum and marginal product becomes zero. The marginal product becomes negative in the third stage. So the total product also declines. The average product continues to decline.

We can sum up the above relationship thus when 'A.P.' is rising, "M. P.' rises more than " A. P; When 'A. P." is maximum and constant, 'M. P.' becomes equal to 'A. P.' when 'A. P.' starts falling, 'M. P.' falls faster than ' A. P.'.

Thus, the total product, marginal product and average product pass through three phases, viz., increasing diminishing and negative returns stage. The law of variable proportion is nothing but the combination of the law of increasing and demising returns

ISOQUANTS

Production function with 2 variable inputs

Production function using 2 variable inputs is explained with the help of the **Isoquants.**Details about isoquants are explained below

In economics, an **isoquant** (derived from quantity and the Greek word **iso** [equal) and Latin word qunatus meaning 'quantity'. The isoquant therefore called as the "Equal Product Curve" or can be named as the "indifference curve"

As isoquant curve can be defined as the locus of points representing various combinations of two inputs___ capital and labour__ yielding the same output.

In economics, an **isoquant** is a contour line drawn through the set of points at which the same quantity of output is produced while changing the quantities of two or more inputs.

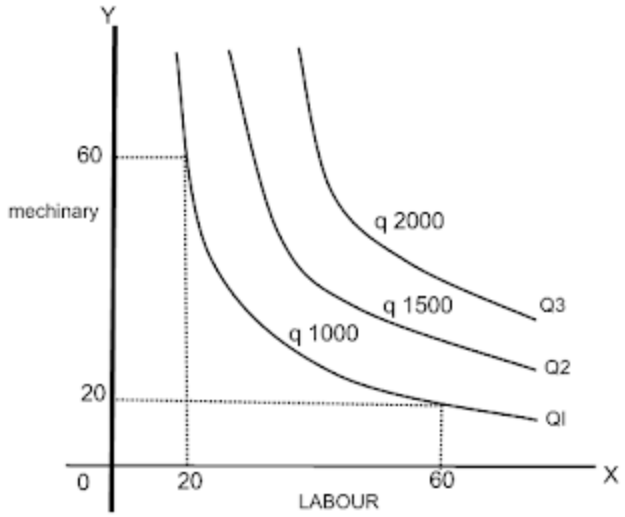
DEFINITION

— According to **Ferguson,** "An isoquant is a curve showing all possible combinations of inputs physically capable of producing a given level of output"

— In the words of **Peterson,** "An isoquant curve may be defined as a curve showing the possible combinations of two variable factors that can be used to produce the same total product"

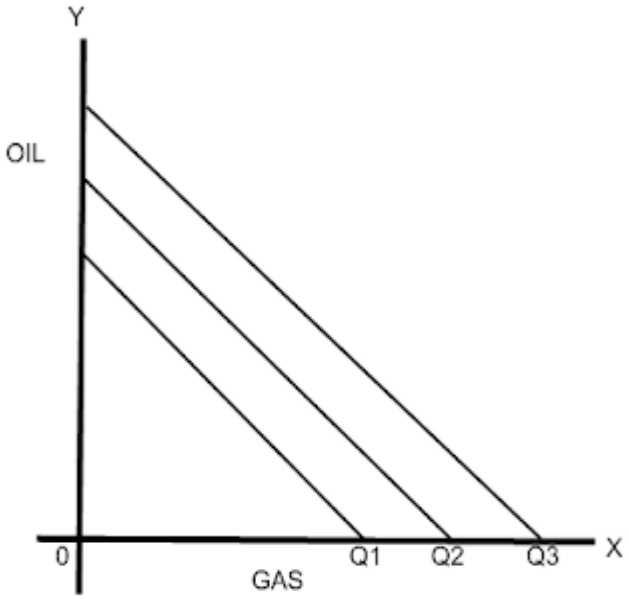
The term Isoquant or Iso-product is composed of 'iso' implying equal and 'quant' implying quantity or product or output. Thus it means equal quantity or equal output. Different factors are needed to produce goods. These factors may be substituted for one another. For example 100 watches may be produced with 90 units of capital and 10 units of labour. The same number of watches (100 units) may also be produced with such combinations as 60 units of capital and 20 units of labour or with 40 units of capital and 30 units of labour. If different combinations of two factors yielding equal amount of total output are diagrammatically presented in the form of a curve, then such a curve is called on Isoquant or Iso-product curve. Thus isoquant curve is that curve which shows the different possible combinations of two factor inputs yielding the same amount of output. Isoquant curves are also known as Equal product or Iso-product or Production Indifference Curves. Isoquant curve is called production indifference curve since it is an extension of indifference curve analysis from the theory of consumption to the theory of production.An isoquant shows that if the firm have ability to substitute between the two different inputs (labour and machines) in order to produce the same level of output

If the distance between isoquants increases (curve shifting upward) output increases. Example q 1000 to q 1500 shift in the curve shows increase in the quantity produced where q = quantity produced.



By the isoquant curve we came to know that if we want to produce certain quantity of good (q=1000) ie 1000 goods, we can employee more labour and we can use less machinery. In the same way for the same output that is (q=1000) we can use more number of machinery and we can employee less number of labour in the firm for production of same quantity. Here according to the budget and the financial position of the firm the producer can switch between the alternative production systems.

Eg: for producing 1000 goods we can use 60 machines and 20 labours. OR we can use 20 machines and 60 labours for same production.



Linear isoquants

This liner isoquant is drawn if there is a perfect substitutability in the inputs of production. For example Power plant equipped to burn either oil or gas, various amounts of electric power can be produced by burning gas only or oil only. Gas and oil are perfect substitutes here.

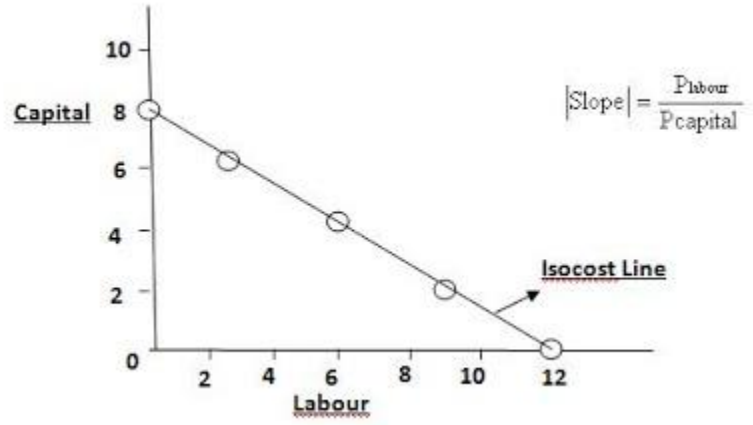
Hence isoquants are straight lines.

The Isocost Line

The isocost line is an important component when analysing producer's behaviour. The isocost line illustrates all the possible combinations of two factors that can be used at given costs and for a given producer's budget. In simple words, an isocost line represents a combination of inputs which all cost the same amount.

Now suppose that a producer has a total budget of Rs 120 and and for producing a certain level of output, he has to spend this amount on 2 factors A and B. Price of factors A and B are Rs 15 and Rs. 10 respectively.

Combinations	Units of Capital	Units of Labour	Total expenditure
	Price = 150Rs	Price = 100 Rs	(in Rupees)
A	8	0	120
B	6	3	120
C	4	6	120
D	2	9	120
E	0	12	120



The isocost line shows all the possible combinations of two factors Labour and capital.

LEAST COST COMBINATION

Definition:

In the long run, all factors of production can be varied. The profit maximization firm will choose the least cost combination of factors to produce at any given level of output. The **least cost combination or the optimum factor combination** refers to the combination of factors with which a firm can produce a specific quantity of output at the lowest possible cost.

The least cost combination of-factors or producer's equilibrium is now explained with the help of iso-product curves and isocosts. The optimum factors combination or the least cost combination refers to the combination of factors with which a firm can produce a specific quantity of output at the lowest possible cost.

As we know, there are a number of combinations of factors which can yield a given level of output. The producer has to choose, one combination out of these which yields a given level of output with least possible outlay. The least cost combination of factors for any level of output is that where the iso-product curve is tangent to an isocost curve.

Diagram/Figure:

The least cost combination of factors is now explained with the help of figure

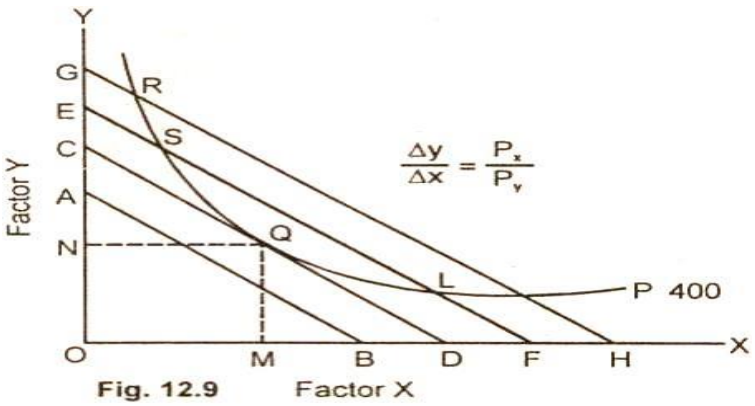


Fig. 12.9

Here the isocost line CD is tangent to the iso-product curve 400 units at point Q. The firm employs OC units of factor Y and OD units of factor X to produce 400 units of output. This is the optimum output which the firm can get from the cost outlay of Q. In this figure any point below Q on the price line AB is desirable as it shows lower cost, but it is not attainable for producing 400 units of output. As regards points RS above Q on isocost lines GH, EF, they show higher cost.

These are beyond the reach of the producer with CD outlay. Hence point Q is the least cost point. It is the point which is the least cost factor combination for producing 400 units of output with OC units of factor Y and OD units of factor X. Point Q is the equilibrium of the producer.

At this point, the slope of the isoquants equal to the slope of the isocost line. The MRT of the two inputs equals their price ratio.

Thus we find that at point Q, the two conditions of producer's, equilibrium in the choice of factor combinations, are satisfied.

(1) The isoquant (IP) is convex the origin.

(2) At point Q, the slope of the isoquant $\Delta Y / \Delta X$ ($MTYS_{xy}$) is equal to the slope of the isocost in Px / Py. The producer gets the optimum output at least cost factor combination.

7)Write about the cob Douglas production function?

Cobb-Douglas production function:

Production function of the linear homogenous type is invested by Junt wicksell and first tested by C. W. Cobb and P. H. Dougles in 1928. This famous statistical production function is known as Cobb-Douglas production function. Originally the function is applied on the empirical study of the American manufacturing industry. Cabb – Douglas production function takes the following mathematical form.

$Y= (AK^X L^{1-x})$

Where Y=output

K=Capital

L=Labour

A, ∝=positive constant

Assumptions:

It has the following assumptions

1. The function assumes that output is the function of two factors viz. capital and labour.
2. It is a linear homogenous production function of the first degree
3. The function assumes that the logarithm of the total output of the economy is a linear function of the logarithms of the labour force and capital stock.
4. There are constant returns to scale
5. All inputs are homogenous
6. There is perfect competition
7. There is no change in technology

Leontief production function

In economics, the **Leontief production function** or **fixed proportions production function** is a production function that implies the factors of production will be used in fixed (technologically pre-determined) proportions, as there is no substitutability between factors. It was named after Wassily Leontief and represents a limiting case of the constant elasticity of substitution production function.

For the simple case of a good that is produced with two inputs, the function is of the form

$q=\text{Min}(Z1/a, Z2/b)$

where q is the quantity of output produced, z_1 and z_2 are the utilised quantities of input 1 and input 2 respectively, and a and b are technologically determined constants.

Example

Suppose that the intermediate goods "tyres" and "steering wheels" are used in the production of automobiles (for simplicity of the example, to the exclusion of anything else). Then in the above formula q refers to the number of automobiles produced, z_1 refers to the number of tires used, and z_2 refers to the number of steering wheels used. Assuming each car is produced with 4 tires and 1 steering wheel, the Leontief production function is

Number of cars = Min{¼ times the number of tires, 1 times the number of steering wheels}.

Returns to factors are also called factor productivities. Productivity is the ratio of output to the input. Factor productivity refers to the short-run relationship of input and output. The productivity of one unit of a factor of production will be equal to the output it can generate. The productivity of a particular factor is measured with the assumption that the other factors are not changed or remain unchanged. Only that particular factor under study is changed.

Returns to factors refer to the output or return generated as a result of change in one or more factors, keeping the other factors unchanged. Given a percentage of increase or decrease in a particular factor such as labour, is it yielding proportionate increase or decrease in production? This is analysed in 'returns to factors.'

The change in productivity can be measured in terms of

RETURNS TO FACTORS

(a) Total productivity The total output generated at varied levels of input of a particular factor (while other factors remain constant), is called total physical product.

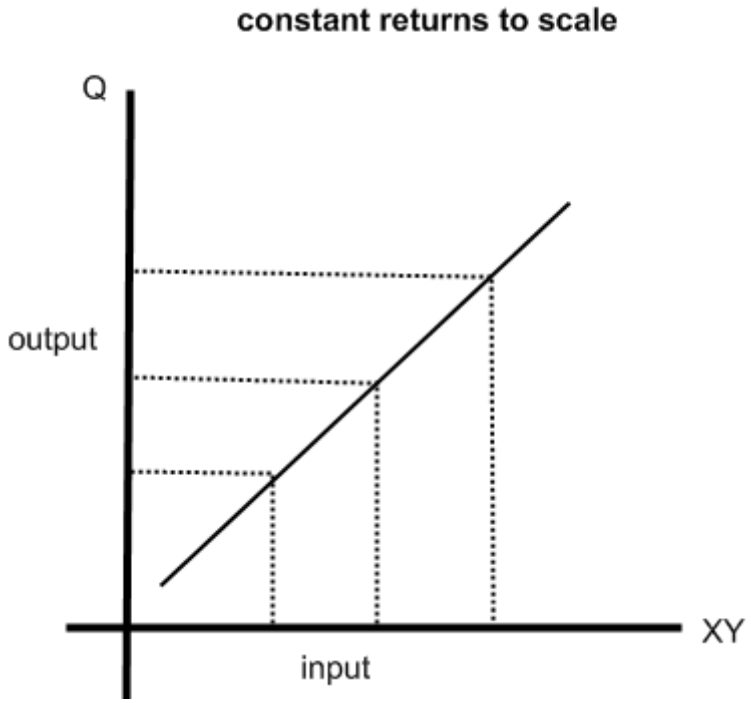
(b) Average productivity The total physical product divided by the number units of that particular factor used yields average productivity.

(c) Marginal productivity The marginal physical product is the additional output generated by adding an additional unit of the factor under study, keeping the other factors constant.

The total physical product increases along with an increase in the inputs. However, the rate of increase is varied, not constant. The total physical product at first increases at an increasing rate because of the law of increasing return to scale, and later its rate of increase declines because of the law of decreasing returns to scale.

Constant Returns to Scale

Law of Constant Returns to Scale When the scope for division of labour gets restricted, the rate of increase in the total output remains constant, the law of constant returns to scale is said to operate. This law states that the rate of increase/decrease in volume of output is same to that of rate of increase/decrease in inputs.



If the proportional increase in all inputs is equal to the proportional increase in output (production), returns to scale are constant. For instance, if a simultaneous doubling of all inputs results in a doubling of production, then returns to scale are constant. 100% increase in the inputs may raise the production level to 100%.

Increasing Returns to Scale

Law of Increasing Returns to Scale

This law states that the volume of output keeps on increasing with every increase in the inputs. Where a given increase in inputs leads to a more than proportionate increase in the output, the law of increasing returns to scale is said to operate. We can introduce division of labour and other technological means to increase production. Hence, the total product increases at an increasing rate.

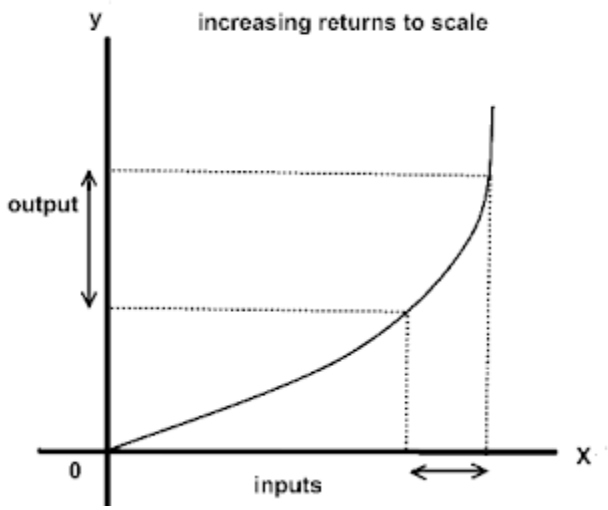
DEFINITION

— In the words of **Marshall,** "An increase of labour and capital leads generally to improved organisation which increases the efficiency of the work of labour and capital. Therefore, an increase of labour and capital generally gives a return which increases more than in proportion."

— According to **Benham,** "As the proportion of one factor in a combination of factors is increased, upto a point, the marginal productivity of the factor will increase."

— In the words of **Mrs. Joan Robinson,** "Increasing Returns to a factor states that when an increasing amount of a factor of production is employed it generally brings about an improvement in organisation. As a result of it, units of the factor concerned become more efficient and to increase production it will not be necessary to increase the physical quantity of the factor in the same proportion."

If the proportional increase in output (production) is larger than that of the inputs, then we have increasing returns to scale.



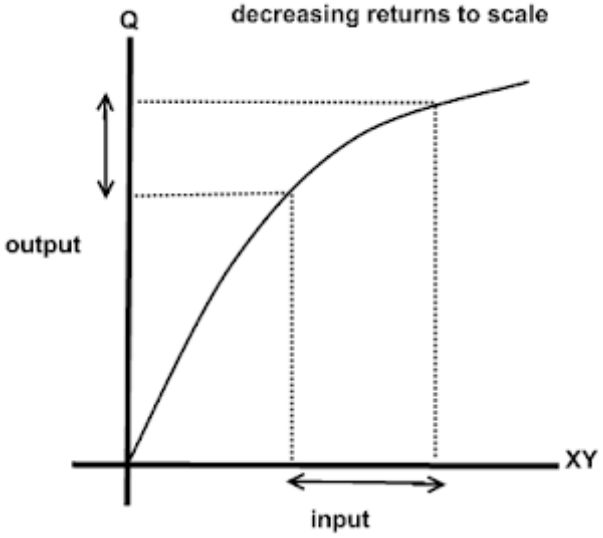
All factors of production (land, labor and capital) have been doubled, there is 100 percent increase in the factors of production whereas output has increased from 10 units to 25 units, which is more than double. There is an increase in output by 150%. It means increase in all inputs leads to a more than proportional increase in the output of the firm. Here increasing returns to scale is operating. Increasing returns to scale is achieved in the manufacturing industries.

Decreasing Returns to Scale

Law of Decreasing Returns to Scale Where the proportionate increase in the inputs does not lead to equivalent increase in output, the output increases at a decreasing rate, the law of decreasing returns to scale is said to operate. This results in higher average cost

per unit.

If the output (production) increases than the proportionality with input increases, we have decreasing returns to scale



8) What is meant by economies of scale & its types?

ECONOMIES OF SCALE

Production may be carried on a small scale or o a large scale by a firm. When a firm expands its size of production by increasing all the factors, it secures certain advantages known as economies of production. Marshall has classified these economies of large-scale production into internal economies and external economies.

Internal economies are those, which are opened to a single factory or a single firm independently of the action of other firms. They result from an increase in the scale of output of a firm and cannot be achieved unless output increases. Hence internal economies depend solely upon the size of the firm and are different for different firms.

External economies are those benefits, which are shared in by a number of firms or industries when the scale of production in an industry or groups of industries increases. Hence external economies benefit all firms within the industry as the size of the industry expands.

Causes of internal economies:

Internal economies are generally caused by two factors

1. Indivisibilities 2. Specialization.

1. **Indivisibilities**

Many fixed factors of production are indivisible in the sense that they must be used in a fixed minimum size. For instance, if a worker works half the time, he may be paid half the salary. But he cannot be chopped into half and asked to produce half the current output. Thus as output increases the indivisible factors which were being used below capacity

can be utilized to their full capacity thereby reducing costs. Such indivisibilities arise in the case of labour, machines, marketing, finance and research.

2. **Specialization.**

Division of labour, which leads to specialization, is another cause of internal economies. Specialization refers to the limitation of activities within a particular field of production. Specialization may be in labour, capital, machinery and place. For example, the production process may be split into four departments relation to manufacturing, assembling, packing and marketing under the charge of separate managers who may work under the overall charge of the general manger and coordinate the activities of the for departments. Thus specialization will lead to greater productive efficiency and to reduction in costs.

Internal Economies:

Internal economies may be of the following types.

A). Technical Economies.

Technical economies arise to a firm from the use of better machines and superior techniques of production. As a result, production increases and per unit cost of production falls. A large firm, which employs costly and superior plant and equipment, enjoys a technical superiority over a small firm. Another technical economy lies in the mechanical advantage of using large machines. The cost of operating large machines is less than that of operating mall machine. More over a larger firm is able to reduce it's per unit cost of production by linking the various processes of production. Technical economies may also be associated when the large firm is able to utilize all its waste materials for the development of by-products industry. Scope for specialization is also available in a large firm. This increases the productive capacity of the firm and reduces the unit cost of production.

B). Managerial Economies:

These economies arise due to better and more elaborate management, which only the large size firms can afford. There may be a separate head for manufacturing, assembling, packing, marketing, general administration etc. Each department is under the charge of an expert. Hence the appointment of experts, division of administration into several departments, functional specialization and scientific co-ordination of various works make the management of the firm most efficient.

C). Marketing Economies:

The large firm reaps marketing or commercial economies in buying its requirements and in selling its final products. The large firm generally has a separate marketing department. It can buy and sell on behalf of the firm, when the market trends are more favorable. In the matter of buying they could enjoy advantages like preferential treatment, transport concessions, cheap credit, prompt delivery and fine relation with dealers. Similarly it sells its products more effectively for a higher margin of profit.

D). Financial Economies:

The large firm is able to secure the necessary finances either for block capital purposes or for working capital needs more easily and cheaply. It can barrow from the public, banks and other financial institutions at relatively cheaper rates. It is in this way that a large firm reaps financial economies.

E). Risk bearing Economies:

The large firm produces many commodities and serves wider areas. It is, therefore, able to absorb any shock for its existence. For example, during business depression, the prices fall for every firm. There is also a possibility for market fluctuations in a particular product of the firm. Under such circumstances the risk-bearing economies or survival economies help the bigger firm to survive business crisis.

F). Economies of Research:

A large firm possesses larger resources and can establish it's own research laboratory and employ trained research workers. The firm may even invent new production techniques for increasing its output and reducing cost.

G). Economies of welfare:

A large firm can provide better working conditions in-and out-side the factory. Facilities like subsidized canteens, crèches for the infants, recreation room, cheap houses, educational and medical facilities tend to increase the productive efficiency of the workers, which helps in raising production and reducing costs.

External Economies.

Business firm enjoys a number of external economies, which are discussed below:

A). Economies of Concentration:

When an industry is concentrated in a particular area, all the member firms reap some common economies like skilled labour, improved means of transport and communications, banking and financial services, supply of power and benefits from subsidiaries. All these facilities tend to lower the unit cost of production of all the firms in the industry.

B). Economies of Information

The industry can set up an information centre which may publish a journal and pass on information regarding the availability of raw materials, modern machines, export potentialities and provide other information needed by the firms. It will benefit all firms and reduction in their costs.

C). Economies of Welfare:

An industry is in a better position to provide welfare facilities to the workers. It may get land at concessional rates and procure special facilities from the local bodies for setting up housing colonies for the workers. It may also establish public health care units, educational institutions both general and technical so that a continuous supply of skilled labour is available to the industry. This will help the efficiency of the workers.

D). Economies of Disintegration:

The firms in an industry may also reap the economies of specialization. When an industry expands, it becomes possible to spilt up some of the processes which are taken over by specialist firms. For example, in the cotton textile industry, some firms may specialize in manufacturing thread, others in printing, still others in dyeing, some in long cloth, some in dhotis, some in shirting etc. As a result the efficiency of the firms specializing in different fields increases and the unit cost of production falls.

Thus internal economies depend upon the size of the firm and external economies depend upon the size of the industry.

9)What is cost and explain about the different cost concepts?

COST ANALYSIS

Profit is the ultimate aim of any business and the long-run prosperity of a firm depends upon its ability to earn sustained profits. Profits are the difference between selling price and cost of production. In general the selling price is not within the control of a firm but many costs are under its control. The firm should therefore aim at controlling and minimizing cost. Since every business decision involves cost consideration, it is necessary to understand the meaning of various concepts for clear business thinking and application of right kind of costs.

COST CONCEPTS:

A managerial economist must have a clear understanding of the different cost concepts for clear business thinking and proper application. The several alternative bases of classifying cost and the relevance of each for different kinds of problems are to be studied. The various relevant concepts of cost are:

1. Opportunity costs and outlay costs:

Out lay cost also known as actual costs obsolete costs are those expends which are actually incurred by the firm these are the payments made for labour, material, plant, building, machinery traveling, transporting etc., These are all those expense item appearing in the books of account, hence based on accounting cost concept.

On the other hand opportunity cost implies the earnings foregone on the next best alternative, has the present option is undertaken. This cost is often measured by assessing the alternative, which has to be scarified if the particular line is followed.

The opportunity cost concept is made use for long-run decisions. This concept is very important in capital expenditure budgeting. This concept is very important in capital expenditure budgeting. The concept is also useful for taking short-run decisions opportunity cost is the cost concept to use when the supply of inputs is strictly limited and when there is an alternative. If there is no alternative, Opportunity cost is zero. The opportunity cost of any action is therefore measured by the value of the most favorable alternative course, which had to be foregoing if that action is taken.

2. Explicit and implicit costs:

Explicit costs are those expenses that involve cash payments. These are the actual or business costs that appear in the books of accounts. These costs include payment of wages and salaries, payment for raw-materials, interest on borrowed capital funds, rent on hired land, Taxes paid etc.

Implicit costs are the costs of the factor units that are owned by the employer himself. These costs are not actually incurred but would have been incurred in the absence of employment of self – owned factors. The two normal implicit costs are depreciation, interest on capital etc. A decision maker must consider implicit costs too to find out appropriate profitability of alternatives.

3. Historical and Replacement costs:

Historical cost is the original cost of an asset. Historical cost valuation shows the cost of an asset as the original price paid for the asset acquired in the past. Historical valuation is the basis for financial accounts.

A replacement cost is the price that would have to be paid currently to replace the same asset. During periods of substantial change in the price level, historical valuation gives a poor projection of the future cost intended for managerial decision. A replacement cost is a relevant cost concept when financial statements have to be adjusted for inflation.

4. Short – run and long – run costs:

Short-run is a period during which the physical capacity of the firm remains fixed. Any increase in output during this period is possible only by using the existing physical capacity more extensively. So short run cost is that which varies with output when the plant and capital equipment in constant.

Long run costs are those, which vary with output when all inputs are variable including plant and capital equipment. Long-run cost analysis helps to take investment decisions.

5. Out-of pocket and books costs:

Out-of pocket costs also known as explicit costs are those costs that involve current cash payment. Book costs also called implicit costs do not require current cash payments. Depreciation, unpaid interest, salary of the owner is examples of back costs.

But the book costs are taken into account in determining the level dividend payable during a period. Both book costs and out-of-pocket costs are considered for all decisions. Book cost is the cost of self-owned factors of production.

6. Fixed and variable costs:

Fixed cost is that cost which remains constant for a certain level to output. It is not affected by the changes in the volume of production. But fixed cost per unit decrease, when the production is increased. Fixed cost includes salaries, Rent, Administrative expenses depreciations etc.

Variable is that which varies directly with the variation is output. An increase in total output results in an increase in total variable costs and decrease in total output results in a proportionate decline in the total variables costs. The variable cost per unit will be constant. Ex: Raw materials, labour, direct expenses, etc.

7. Post and Future costs:

Post costs also called historical costs are the actual cost incurred and recorded in the book of account these costs are useful only for valuation and not for decision making.

Future costs are costs that are expected to be incurred in the futures. They are not actual costs. They are the costs forecasted or estimated with rational methods. Future cost estimate is useful for decision making because decision are meant for future.

8. Traceable and common costs:

Traceable costs otherwise called direct cost, is one, which can be identified with a products process or product. Raw material, labour involved in production is examples of traceable cost.

Common costs are the ones that common are attributed to a particular process or product. They are incurred collectively for different processes or different types of products. It cannot be directly identified with any particular process or type of product.

9. Avoidable and unavoidable costs:

Avoidable costs are the costs, which can be reduced if the business activities of a concern are curtailed. For example, if some workers can be retrenched with a drop in a product – line, or volume or production the wages of the retrenched workers are escapable costs.

The unavoidable costs are otherwise called sunk costs. There will not be any reduction in this cost even if reduction in business activity is made. For example cost of the ideal machine capacity is unavoidable cost.

10. Controllable and uncontrollable costs:

Controllable costs are ones, which can be regulated by the executive who is in change of it. The concept of controllability of cost varies with levels of management. Direct expenses like material, labour etc. are controllable costs.

Some costs are not directly identifiable with a process of product. They are appointed to various processes or products in some proportion. This cost varies with the variation in the basis of allocation and is independent of the actions of the executive of that department. These apportioned costs are called uncontrollable costs.

11. Incremental and sunk costs:

Incremental cost also known as different cost is the additional cost due to a change in the level or nature of business activity. The change may be caused by adding a new product, adding new machinery, replacing a machine by a better one etc.

Sunk costs are those which are not altered by any change – They are the costs incurred in the past. This cost is the result of past decision, and cannot be changed by future decisions. Investments in fixed assets are examples of sunk costs.

12. Total, average and marginal costs:

Total cost is the total cash payment made for the input needed for production. It may be explicit or implicit. It is the sum total of the fixed and variable costs. Average cost is the cost per unit of output. If is obtained by dividing the total cost (TC) by the total quantity produced (Q)

$$\text{Average cost} = \frac{TC}{Q}$$

Marginal cost is the additional cost incurred to produce and additional unit of output or it is the cost of the marginal unit produced.

13. Accounting and Economics costs:

Accounting costs are the costs recorded for the purpose of preparing the balance sheet and profit and ton statements to meet the legal, financial and tax purpose of the company. The accounting concept is a historical concept and records what has happened in the post.

Economics concept considers future costs and future revenues, which help future planning, and choice, while the accountant describes what has happened, the economics aims at projecting what will happen.

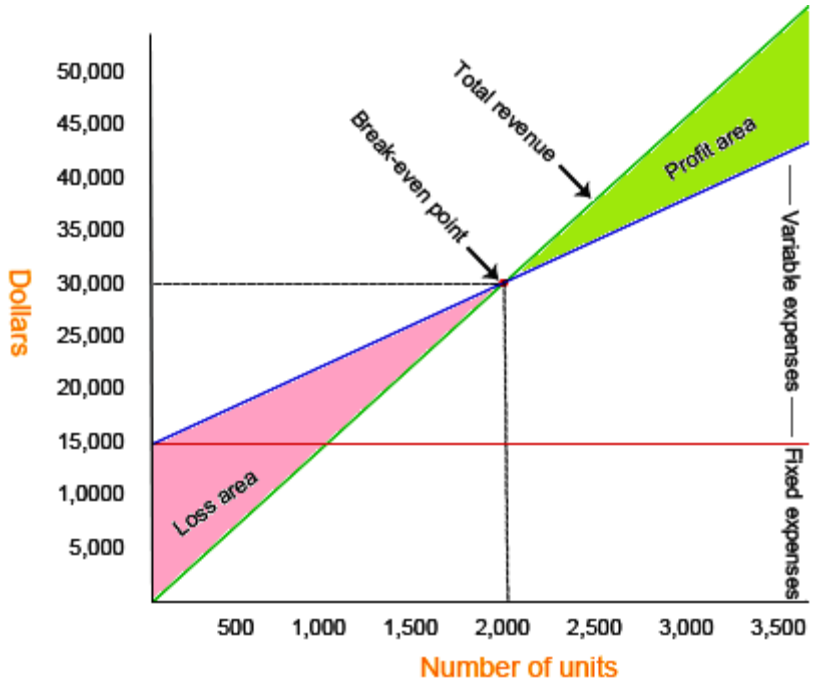
10)Explain about the break even analysis and its significance and limitations?

BREAKEVEN ANALYSIS

The study of cost-volume-profit relationship is often referred as BEA. The term BEA is interpreted in two senses. In its narrow sense, it is concerned with finding out BEP; BEP is the point at which total revenue is equal to total cost. It is the point of no profit, no loss. In its broad determine the probable profit at any level of production.

Graphical presentation (Preparation of break-even chart or CVP graph):

The graphical presentation of dollar and unit sales needed to break-even is known as **break-even chart** or **CVP graph**:



Explanation of the graph:

1. The number of units have been presented on the X-axis (horizontally) where as dollars have been presented on Y-axis (vertically).
2. The straight line in red color represents the total annual fixed expenses of $15,000.
3. The blue line represents the total expenses. Notice that the line has a positive or upward slop that indicates the effect of increasing variable expenses with the increase in production.
4. The green line with positive or upward slop indicates that every unit sold increases the total sales revenue.
5. The total revenue line and the total expenses line cross each other. The point at which they cross each other is the *break-even point*. Notice that the total expenses line is above the total revenue line before the point of intersection and below after the point of intersection. It tells us that the business suffers a loss before the point of intersection and makes a profit after this point. The break-even point in the above graph is 2,000 units or $30,000 that agrees with the break-even point computed using equation and contribution margin methods above.
6. The difference between the total expenses line and the total revenue line before the point of intersection (BE point) is the *loss area*. The loss area has been filled with pink color. Notice that this area reduces as the number of units sold increases. It means every additional unit sold before the break-even point reduces the loss.
7. The difference between the total expenses line and the total revenue line after the point of intersection (BE point) is the profit area. The profit area has been filled with green color. Notice that this area increases as the number of

units sold increases. It means every additional unit sold after the break-even point increases the profit of the business.

Assumptions:

1. All costs are classified into two – fixed and variable.
2. Fixed costs remain constant at all levels of output.
3. Variable costs vary proportionally with the volume of output.
4. Selling price per unit remains constant in spite of competition or change in the volume of production.
5. There will be no change in operating efficiency.
6. There will be no change in the general price level.
7. Volume of production is the only factor affecting the cost.
8. Volume of sales and volume of production are equal. Hence there is no unsold stock.
9. There is only one product or in the case of multiple products. Sales mix remains constant.

Merits:

1. Information provided by the Break Even Chart can be understood more easily then those contained in the profit and Loss Account and the cost statement.
2. Break Even Chart discloses the relationship between cost, volume and profit. It reveals how changes in profit. So, it helps management in decision-making.
3. It is very useful for forecasting costs and profits long term planning and growth
4. The chart discloses profits at various levels of production.
5. It serves as a useful tool for cost control.
6. It can also be used to study the comparative plant efficiencies of the industry.
7. Analytical Break-even chart present the different elements, in the costs – direct material, direct labour, fixed and variable overheads.

Demerits:

1. Break-even chart presents only cost volume profits. It ignores other considerations such as capital amount, marketing aspects and effect of government policy etc., which are necessary in decision making.

2. It is assumed that sales, total cost and fixed cost can be represented as straight lines. In actual practice, this may not be so.
3. It assumes that profit is a function of output. This is not always true. The firm may increase the profit without increasing its output.
4. A major draw back of BEC is its inability to handle production and sale of multiple products.
5. It is difficult to handle selling costs such as advertisement and sale promotion in BEC.
6. It ignores economics of scale in production.
7. Fixed costs do not remain constant in the long run.
8. Semi-variable costs are completely ignored.
9. It assumes production is equal to sale. It is not always true because generally there may be opening stock.
10. When production increases variable cost per unit may not remain constant but may reduce on account of bulk buying etc.
11. The assumption of static nature of business and economic activities is a well-known defect of BEC.

1. Fixed cost
2. Variable cost
3. Contribution
4. Margin of safety
5. Angle of incidence
6. Profit volume ratio
7. Break-Even-Point

1. **Fixed cost:** Expenses that do not vary with the volume of production are known as fixed expenses. Eg. Manager's salary, rent and taxes, insurance etc. It should be noted that fixed changes are fixed only within a certain range of plant capacity. The concept of fixed overhead is most useful in formulating a price fixing policy. Fixed cost per unit is not fixed.
2. **Variable Cost**: Expenses that vary almost in direct proportion to the volume of production of sales are called variable expenses. Eg. Electric power and fuel, packing materials consumable stores. It should be noted that variable cost per unit is fixed.
3. **Contribution:** Contribution is the difference between sales and variable costs and it contributed towards fixed costs and profit. It helps in sales and pricing policies and measuring the profitability of different proposals. Contribution is a sure test to decide whether a product is worthwhile to be continued among different products.

   Contribution = Sales – Variable cost
   Contribution = Fixed Cost + Profit.

4. **Margin of safety:** Margin of safety is the excess of sales over the break even sales. It can be expressed in absolute sales amount or in percentage. It indicates the extent to which the sales can be reduced without resulting in loss. A large margin of safety indicates the soundness of the business. The formula for the margin of safety is:

   Present sales – Break even sales **or** $\frac{\text{Profit}}{\text{P. V. ratio}}$

Margin of safety can be improved by taking the following steps.

1. Increasing production
2. Increasing selling price
3. Reducing the fixed or the variable costs or both
4. Substituting unprofitable product with profitable one.

5. **Angle of incidence:** This is the angle between sales line and total cost line at the Break-even point. It indicates the profit earning capacity of the concern. Large angle of incidence indicates a high rate of profit; a small angle indicates a low rate of earnings. To improve this angle, contribution should be increased either by raising the selling price and/or by reducing variable cost. It also indicates as to what extent the output and sales price can be changed to attain a desired amount of profit.

6. **Profit Volume Ratio** is usually called P. V. ratio. It is one of the most useful ratios for studying the profitability of business. The ratio of contribution to sales is the P/V ratio. It may be expressed in percentage. Therefore, every organization tries to improve the P. V. ratio of each product by reducing the variable cost per unit or by increasing the selling price per unit. The concept of P. V. ratio helps in determining break even-point, a desired amount of profit etc.

   The formula is, $\frac{\text{Contributi on}}{Sales}$ X 100

7. **Break – Even- Point:** If we divide the term into three words, then it does not require further explanation.

   Break-divide

   Even-equal

   Point-place or position

   Break Even Point refers to the point where total cost is equal to total revenue. It is a point of no profit, no loss. This is also a minimum point of no profit, no loss. This is also a minimum point of production where total costs are recovered. If sales go up beyond the Break Even Point, organization makes a profit. If they come down, a loss is incurred.

   1. Break Even point (Units) = $\frac{\text{Fixed Expenses}}{\text{Contributi on per unit}}$
   2. Break Even point (In Rupees) = $\frac{\text{Fixed expenses}}{\text{Contributi on}}$ X sales

11)What is market and explain the different types of markets

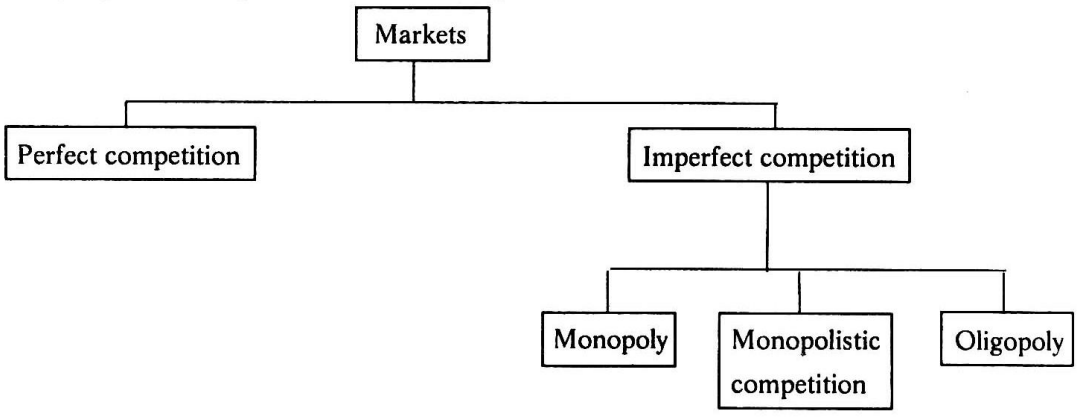
UNIT-III
INTRODUCTION TO MARKET, THEORIES OF THE FIRM AND PRICING POLICIES
MARKET

Market is a place where buyer and seller meet, goods and services are offered for the sale and transfer of ownership occurs. A market may be also defined as the demand made by a certain group of potential buyers for a good or service. The former one is a narrow concept and later one, a broader concept. Economists describe a market as a collection of buyers and sellers who transact over a particular product or product class (the housing market, the clothing market, the grain market etc.). For business purpose we define a market as people or organizations with wants (needs) to satisfy, money to spend, and the willingness to spend it. Broadly, market represents the structure and nature of buyers and sellers for a commodity/service and the process by which the price of the commodity or service is established. In this sense, we are referring to the structure of competition and the process of price determination for a commodity or service. The determination of price for a commodity or service depends upon the structure of the market for that commodity or service (i.e., competitive structure of the market). Hence the understanding on the market structure and the nature of competition are a pre-requisite in price determination.

Different Market Structures

Market structure describes the competitive environment in the market for any good or service. A market consists of all firms and individuals who are willing and able to buy or sell a particular product. This includes firms and individuals currently engaged in buying and selling a particular product, as well as potential entrants.

The determination of price is affected by the competitive structure of the market. This is because the firm operates in a market and not in isolation. In marking decisions concerning economic variables it is affected, as are all institutions in society by its environment.



Perfect competition

Perfect competition refers to a market structure where competition among the sellers and buyers prevails in its most perfect form. In a perfectly competitive market, a single market price prevails for the commodity, which is determined by the forces of total demand and total supply in the market.

Characteristics of Perfect Competition

The following features characterize a perfectly competitive market:

1. A large number of buyers and sellers: The number of buyers and sellers is large and the share of each one of them in the market is so small that none has any influence on the market price.
2. Homogeneous product: The product of each seller is totally undifferentiated from those of the others.
3. Free entry and exit: Any buyer and seller is free to enter or leave the market of the commodity.
4. Perfect knowledge: All buyers and sellers have perfect knowledge about the market for the commodity.
5. Indifference: No buyer has a preference to buy from a particular seller and no seller to sell to a particular buyer
6. Non-existence of transport costs: Perfectly competitive market also assumes the non-existence of transport costs.
7. Perfect mobility of factors of production: Factors of production must be in a position to move freely into or out of industry and from one firm to the other.

Under such a market no single buyer or seller plays a significant role in price determination. One the other hand all of them jointly determine the price. The price is determined in the industry, which is composed of all the buyers and seller for the commodity. The demand curve facing the industry is the sum of all consumers' demands at various prices. The industry supply curve is the sum of all sellers' supplies at various prices.

12Explain the features of perfect competition market?Write about the price output decision under perfect market competition?

Equilibrium of a firm and industry under perfect competition

Equilibrium is a position where the firm has no incentive either to expand or contrast its output. The firm is said to be in equilibrium when it earn maximum profit. There are two conditions for attaining equilibrium by a firm. They are:

Marginal cost is an additional cost incurred by a firm for producing and additional unit of output. Marginal revenue is the additional revenue accrued to a firm when it sells one additional unit of output. A firm increases its output so long as its marginal cost becomes equal to marginal revenue. When marginal cost is more than marginal revenue, the firm reduces output as its costs exceed the revenue. It is only at the point where marginal cost is equal to marginal revenue, and then the firm attains equilibrium. Secondly, the marginal cost curve must cut the marginal revenue curve from below. If marginal cost curve cuts the marginal revenue curve from above, the firm is having the scope to increase its output as the marginal cost curve slopes downwards. It is only with the upward sloping marginal cost curve, there the firm attains equilibrium. The reason is that the marginal cost curve when rising cuts the marginal revenue curve from below.

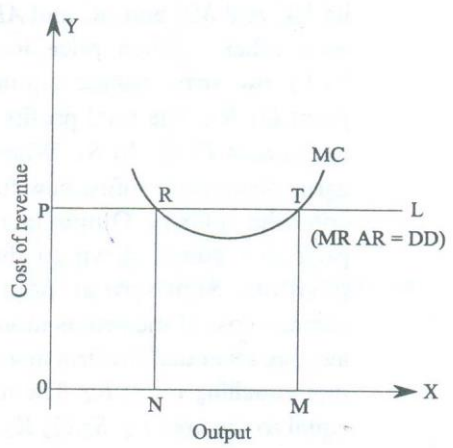


Fig. 6.2

The equilibrium of a perfectly competitive firm may be explained with the help of the fig. 6.2.

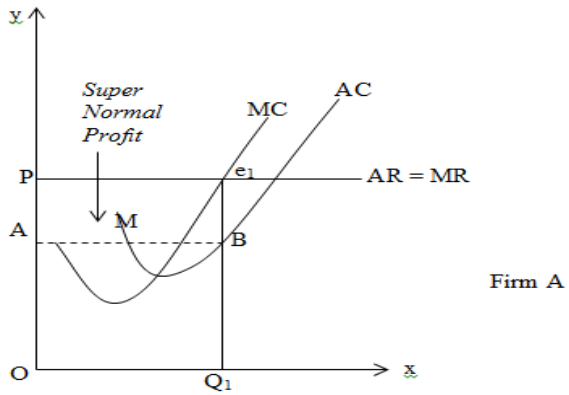
In the given fig. PL and MC represent the Price line and Marginal cost curve. PL also represents Marginal revenue, Average revenue and demand. As Marginal revenue, Average revenue and demand are the same in perfect competition, all are equal to the price line. Marginal cost curve is U- shaped curve cutting MR curve at R and T. At point R marginal cost becomes equal to marginal revenue. But MC curve cuts the MR curve fro above. So this is not the equilibrium position. The downward sloping marginal cost curve indicates that the firm can reduce its cost of production by increasing output. As the firm expands its output, it will reach equilibrium at point T. At this point, on price line PL; the two conditions of equilibrium are satisfied. Here the marginal cost and marginal revenue of the firm remain equal. The firm is producing maximum output and is in equilibrium at this stage. If the firm continues its output beyond this stage, its marginal cost exceeds marginal revenue resulting in losses. As the firm has no idea of expanding or contracting its size of out, the firm is said to be in equilibrium at point T.

Price and out put determination in short run under perfect competition

A Firm is price taker and not a price maker in the market. The difference between a competitive industry's role in determining the price and output level and a firm's role can be seen through the diagram given below.

At the equilibrium level of output a firm may get abnormal profit if its average revenue exceeds the average cost of production.

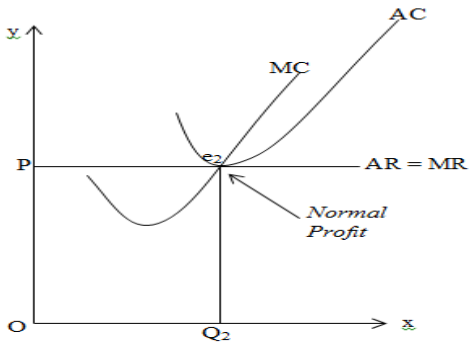
In the figure firm's equilibrium is attained at point E where the MC curve intersects the MR curve. At OP price, firm produces OQ output. At OQ output, firm's average revenue (AR) is EQ, while its average cost (AC) is BQ. Since AR is more than AC, firm gets abnormal profit. Thus, the firm gets abnormal profits EB per unit of output, total profit being PABE, i.e., per unit profit multiplied by the total output.



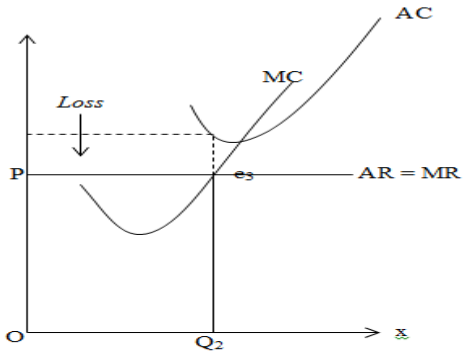
Firm A

Price and out put determination in Long run under perfect competition

In perfect competitive market there is no restriction on the entry or exit of the firms. The inefficient ones who undergo losses would either shut down or would try to improve their efficiency. On the other hand, profit earning firms will attract new firms to be established. With the entry of new producers, total supply of the commodity may increase, as a result, price per unit will fall. Consequently, the profit will vanish and all the firms will simply break-even. This situation is known as that of long run equilibrium of firm and industry in a perfect market. In the long run, all the firms only break even, that is, the firms can earn only normal profits. This is because as the no loss no profit situation at which the firm's AR=AC. This situation has been graphically plotted in the figure.



Firm B



Firm C

In the figure OQ is equilibrium quantity. At this level of output, average revenue and average cost both equals to QS, and hence the firm is making only normal profits. At this point

Since the average cost is minimum, the average cost and marginal cost will be identical, and hence, the long run equilibrium conditions for a firm will be **: MR=LMC=LAC=AR=PRICE**

13)Write about the price output decision under monopoly and monopolistic markets?

monopoly

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

Features of monopoly

The following are the features of monopoly.

1. **Single person or a firm:** A single person or a firm controls the total supply of the commodity. There will be no competition for monopoly firm. The monopolist firm is the only firm in the whole industry.
2. **No close substitute:** The goods sold by the monopolist shall not have closely competition substitutes. Even if price of monopoly product increase people will not go in far substitute. For example: If the price of electric bulb increase slightly, consumer will not go in for kerosene lamp.
3. **Large number of Buyers:** Under monopoly, there may be a large number of buyers in the market who compete among themselves.
4. **Price Maker:** Since the monopolist controls the whole supply of a commodity, he is a price-maker, and then he can alter the price.
5. **Supply and Price:** The monopolist can fix either the supply or the price. He cannot fix both. If he charges a very high price, he can sell a small amount. If he wants to sell more, he has to charge a low price. He cannot sell as much as he wishes for any price he pleases.
6. **Downward Sloping Demand Curve:** The demand curve (average revenue curve) of monopolist slopes downward from left to right. It means that he can sell more only by lowering price.

Types of Monopoly

Monopoly may be classified into various types. The different types of monopolies are explained below:

1. **Legal Monopoly:** If monopoly arises on account of legal support or as a matter of legal privilege, it is called Legal Monopoly. Ex. Patent rights, special brands, trade means, copyright etc.
2. **Voluntary Monopoly:** To get the advantages of monopoly some private firms come together voluntarily to control the supply of a commodity. These are called voluntary monopolies. Generally, these monopolies arise with industrial combinations. These voluntary monopolies are of three kinds (a) cartel (b) trust (c) holding company. It may be called artificial monopoly.
3. **Government Monopoly:** Sometimes the government will take the responsibility of supplying a commodity and avoid private interference. Ex. Water, electricity. These monopolies, created to satisfy social wants, are formed on social considerations. These are also called Social Monopolies.
4. **Private Monopoly:** If the total supply of a good is produced by a single private person or firm, it is called private monopoly. Hindustan Lever Ltd. Is having the monopoly power to produce Lux Soap.
5. **Limited Monopoly:** if the monopolist is having limited power in fixing the price of his product, it is called as 'Limited Monopoly'. It may be due to the fear of distant substitutes or government intervention or the entry of rivals firms.
6. **Unlimited Monopoly:** If the monopolist is having unlimited power in fixing the price of his good or service, it is called unlimited monopoly. Ex. A doctor in a village.
7. **Single Price Monopoly:** When the monopolist charges same price for all units of his product, it is called single price monopoly. Ex. Tata Company charges the same price to all the Tata Indiaca Cars of the same model.

8. **Discriminating Monopoly:** When a Monopolist charges different prices to different consumers for the same product, it is called discriminating monopoly. A doctor may take Rs.20 from a rich man and only Rs.2 from a poor man for the same treatment.
9. **Natural Monopoly:** Sometimes monopoly may arise due to scarcity of natural resources. Nature provides raw materials only in some places. The owner of the place will become monopolist. For Ex. Diamond mine in South Africa.

Pricing under Monopoly

Monopoly refers to a market situation where there is only one seller. He has complete control over the supply of a commodity. He is therefore in a position to fix any price. Under monopoly there is no distinction between a firm and an industry. This is because the entire industry consists of a single firm.

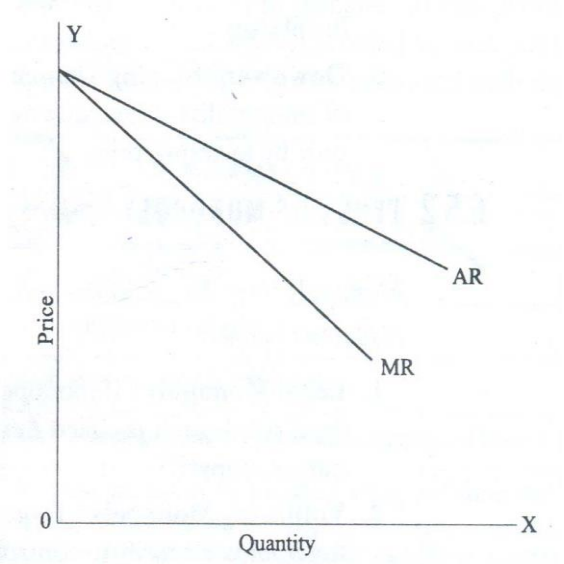


Fig. 6.11

Being the sole producer, the monopolist has complete control over the supply of the commodity. He has also the power to influence the market price. He can raise the price by reducing his output and lower the price by increasing his output. Thus he is a price-maker. He can fix the price to his maximum advantages. But he cannot fix both the supply and the price, simultaneously. He can do one thing at a time. If the fixes the price, his output will be determined by the market demand for his commodity. On the other hand, if he fixes the output to be sold, its market will determine the price for the commodity. Thus his decision to fix either the price or the output is determined by the market demand.

The market demand curve of the monopolist (the average revenue curve) is downward sloping. Its corresponding marginal revenue curve is also downward sloping. But the marginal revenue curve lies below the average revenue curve as shown in the figure. The monopolist faces the down-sloping demand curve because to sell more output, he must reduce the price of his product. The firm's demand curve and industry's demand curve are one and the same. The average cost and marginal cost curve are U shaped curve. Marginal cost falls and rises steeply when compared to average cost.

Price output determination (Equilibrium Point)

The monopolistic firm attains equilibrium when its marginal cost becomes equal to the marginal revenue. The monopolist always desires to make maximum profits. He makes maximum profits when MC=MR. He does not increasing his output if his revenue exceeds his costs. But when the costs exceed the revenue, the monopolist firm incur loses. Hence the monopolist curtails his production. He produces up to that point where additional cost is equal to the additional revenue (MR=MC). Thus point is called equilibrium point. The price output determination under monopoly may be explained with the help of a diagram.

In the diagram 6.12 the quantity supplied or demanded is shown along X-axis. The cost or revenue is shown along Y-axis. AC and MC are the average cost and marginal cost curves respectively. AR and MR curves slope downwards from left to right. AC and MC and U shaped curves. The monopolistic firm attains equilibrium when its marginal cost is equal to marginal revenue (MC=MR). Under monopoly, the MC curve may cut the MR curve from below or from a side. In the diagram, the above condition is satisfied at point E. At point E, MC=MR. The firm is in equilibrium. The equilibrium output is OM.

The above diagram (Average revenue) = MQ or OP
Average cost = MR
Profit per unit = Average Revenue-Average cost=MQ-MR=QR
Total Profit = QRXSR=PQRS

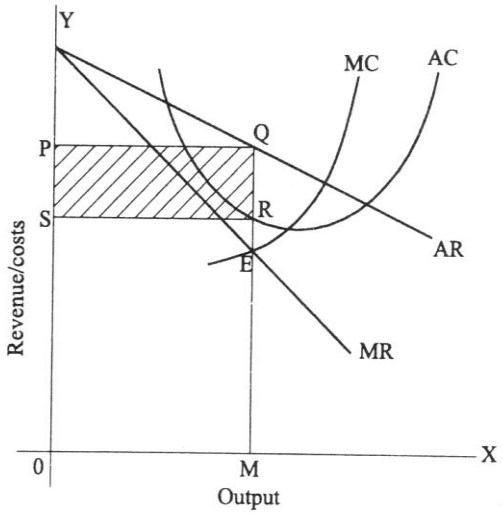


Fig. 6.12

The area PQRS resents the maximum profit earned by the monopoly firm.

But it is not always possible for a monopolist to earn super-normal profits. If the demand and cost situations are not favorable, the monopolist may realize short run losses.

Through the monopolist is a price marker, due to weak demand and high costs; he suffers a loss equal to PABC.

If AR > AC -> Abnormal or super normal profits.
If AR = AC -> Normal Profit
If AR < AC -> Loss

In the long run the firm has time to adjust his plant size or to use existing plant so as to maximize profits.

Monopolistic competition

Perfect competition and pure monopoly are rate phenomena in the real world. Instead, almost every market seems to exhibit characteristics of both perfect competition and monopoly. Hence in the real world it is the state of imperfect competition lying between these two extreme limits that work. Edward. H. Chamberlain developed the theory of monopolistic competition, which presents a more realistic picture of the actual market structure and the nature of competition.

Characteristics of Monopolistic Competition

The important characteristics of monopolistic competition are:

1. **Existence of Many firms:** Industry consists of a large number of sellers, each one of whom does not feel dependent upon others. Every firm acts independently without bothering about the reactions of its rivals. The size is so large that an individual firm has only a relatively small part in the total market, so that each firm has very limited control over the price of the product. As the number is relatively large it is difficult for these firms to determine its price- output policies without considering the possible reactions of the rival forms. A monopolistically competitive firm follows an independent price policy.

2. **Product Differentiation:** Product differentiation means that products are different in some ways, but not altogether so. The products are not identical but the same time they will not be entirely different from each other. IT really means that there are various monopolist firms competing with each other. An example of monopolistic competition and product differentiation is the toothpaste produced by various firms. The product of each firm is different from that of its rivals in one or more respects. Different toothpastes like Colgate, Close-up, Forehans, Cibaca, etc., provide an example of monopolistic competition. These products are relatively close substitute for each other but not perfect substitutes. Consumers have definite preferences for the particular verities or brands of products offered for sale by various sellers. Advertisement, packing, trademarks, brand names etc. help differentiation of products even if they are physically identical.

3. **Large Number of Buyers:** There are large number buyers in the market. But the buyers have their own brand preferences. So the sellers are able to exercise a certain degree of monopoly over them. Each seller has to plan various incentive schemes to retain the customers who patronize his products.
4. **Free Entry and Exist of Firms:** As in the perfect competition, in the monopolistic competition too, there is freedom of entry and exit. That is, there is no barrier as found under monopoly.
5. **Selling costs:** Since the products are close substitute much effort is needed to retain the existing consumers and to create new demand. So each firm has to spend a lot on selling cost, which includes cost on advertising and other sale promotion activities.
6. **Imperfect Knowledge:** Imperfect knowledge about the product leads to monopolistic competition. If the buyers are fully aware of the quality of the product they cannot be influenced much by advertisement or other sales promotion techniques. But in the business world we can see that thought the quality of certain products is the same, effective advertisement and sales promotion techniques make certain brands monopolistic. For examples, effective dealer service backed by advertisement-helped popularization of some brands through the quality of almost all the cement available in the market remains the same.
7. **The Group:** Under perfect competition the term industry refers to all collection of firms producing a homogenous product. But under monopolistic competition the products of various firms are not identical through they are close substitutes. Prof. Chamberlin called the collection of firms producing close substitute products as a group.

Price – Output Determination under Monopolistic Competition

Since under monopolistic competition different firms produce different varieties of products, different prices for them will be determined in the market depending upon the demand and cost conditions. Each firm will set the price and output of its own product. Here also the profit will be maximized when marginal revenue is equal to marginal cost.

Short-run equilibrium of the firm:

In the short-run the firm is in equilibrium when marginal Revenue = Marginal Cost. In Fig 6.15 AR is the average revenue curve. NMR marginal revenue curve, SMC short-run marginal cost curve, SAC short-run average cost curve, MR and SMC interest at point E where output in OM and price MQ (i.e. OP). Thus the equilibrium output or the maximum profit output is OM and the price MQ or OP. When the price (average revenue) is above average cost a firm will be making supernormal profit. From the figure it can be seen that AR is above AC in the equilibrium point. As AR is above AC, this firm is making abnormal profits in the short-run. The abnormal profit per unit is QR, i.e., the difference between AR and AC at equilibrium point and the total supernormal profit is OR X OM. This total abnormal profits is represented by the rectangle PQRS. As the demand curve here is highly elastic, the excess price over marginal cost is rather low. But in monopoly the demand curve is inelastic. So the gap between price and marginal cost will be rather large.

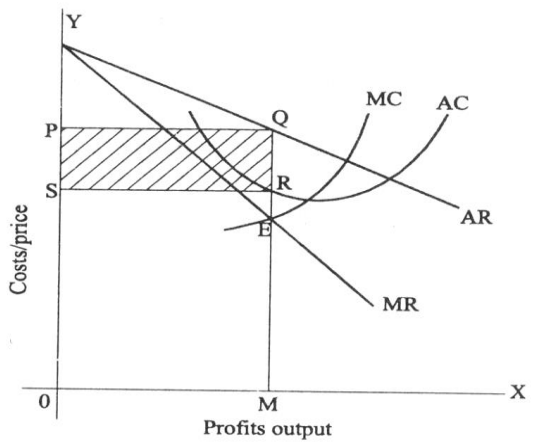


Fig. 6.15

If the demand and cost conditions are less favorable the monopolistically competitive firm may incur loss in the short-run fig 6.16 Illustrates this. A firm incurs loss when the price is less than the average cost of production. MQ is the average cost and OS (i.e. MR) is the price per unit at equilibrium output OM. QR is the loss per unit. The total loss at an output OM is OR X OM. The rectangle PQRS represents the total loses in the short run.

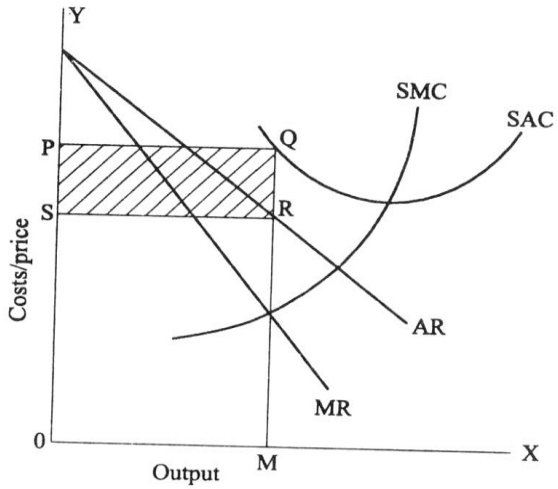


Fig. 6.16

Long – Run Equilibrium of the Firm:

A monopolistically competitive firm will be long – run equilibrium at the output level where marginal cost equal to marginal revenue. Monopolistically competitive firm in the long run attains equilibrium where MC=MR and AC=AR Fig 6.17 shows this trend.

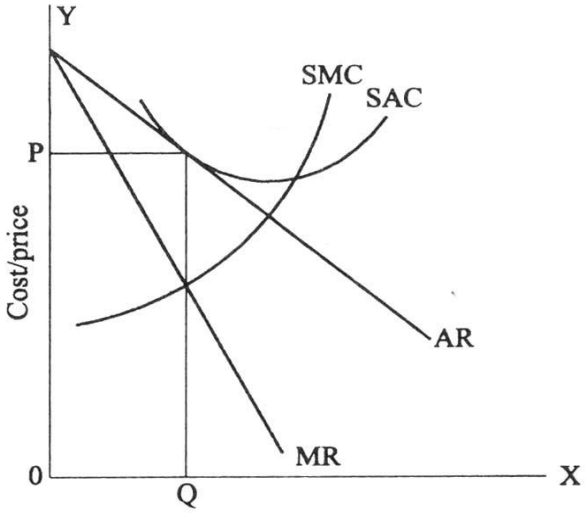


Fig. 6.17

14) Discuss oligopoly concept?

Oligopoly

The term oligopoly is derived from two Greek words, oligos meaning a few, and pollen meaning to sell. Oligopoly is the form of imperfect competition where there are a few firms in the market, producing either a homogeneous product or producing products, which are close but not perfect substitute of each other.

Characteristics of Oligopoly

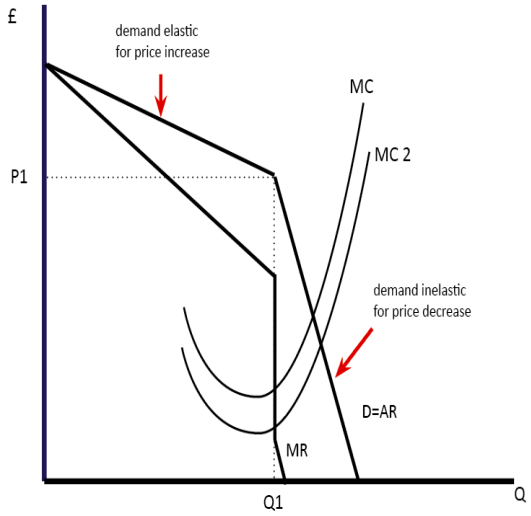
The main features of oligopoly are:

1. **Few Firms:** There are only a few firms in the industry. Each firm contributes a sizeable share of the total market. Any decision taken by one firm influence the actions of other firms in the industry. The various firms in the industry compete with each other.
2. **Interdependence:** As there are only very few firms, any steps taken by one firm to increase sales, by reducing price or by changing product design or by increasing advertisement expenditure will naturally affect the sales of other firms in the industry. An immediate retaliatory action can be anticipated from the other firms in the industry every time when one firm takes such a decision. He has to take this into account when he takes decisions. So the decisions of all the firms in the industry are interdependent.
3. **Indeterminate Demand Curve:** The interdependence of the firms makes their demand curve indeterminate. When one firm reduces price other firms also will make a cut in their prices. So he firm cannot be certain about the demand for its product. Thus the demand curve facing an oligopolistic firm loses its definiteness and thus is indeterminate as it constantly changes due to the reactions of the rival firms.
4. **Advertising and selling costs:** Advertising plays a greater role in the oligopoly market when compared to other market systems. According to Prof. William J. Banumol "it is only oligopoly that advertising comes fully into its own". A huge expenditure on advertising and sales promotion techniques is needed both to retain the present market share and to increase it. So Banumol concludes "under oligopoly, advertising can become a life-and-death matter where a firm which fails to keep up with the advertising budget of its competitors may find its customers drifting off to rival products."

Price Rigidity: In the oligopoly market price remain rigid. If one firm reduced price it is with the intention of attracting the customers of other firms in the industry. In order to retain their consumers they will also reduce price. Thus the pricing decision of one firm results in a loss to all the firms in the industry. If one firm increases price. Other firms will remain silent there by allowing that firm to lost its customers. Hence, no firm will be ready to change the prevailing price. It causes

The kinked demand curve model

This model suggests that prices will be fairly stable and there is little incentive for firms to change prices. Therefore, firms compete using non-price competition methods.



- This assumes that firms seek to maximise profits.
- If they increase the price, then they will lose a large share of the market because they become uncompetitive compared to other firms. Therefore demand is elastic for price increases.

- If firms cut price then they would gain a big increase in market share. However, it is unlikely that firms will allow this. Therefore other firms follow suit and cut price as well. Therefore demand will only increase by a small amount. Therefore demand is inelastic for a price cut.

- Therefore this suggests that prices will be rigid in oligopoly

The diagram above suggests that a change in marginal cost still leads to the same price, because of the kinked demand curve. Profit maximisation occurs where MR = MC at Q1.

Evaluation of kinked demand curve

- In the real world, prices do change.
- Firms may not seek to maximise profits, but prefer to increase market share and so be willing to cut prices, even with inelastic demand.
- Some firms may have very strong brand loyalty and be able to increase the price without demand being very price elastic.
- The model doesn't suggest how prices were arrived at in the first place.

15)What is price and explain different methods for pricing?

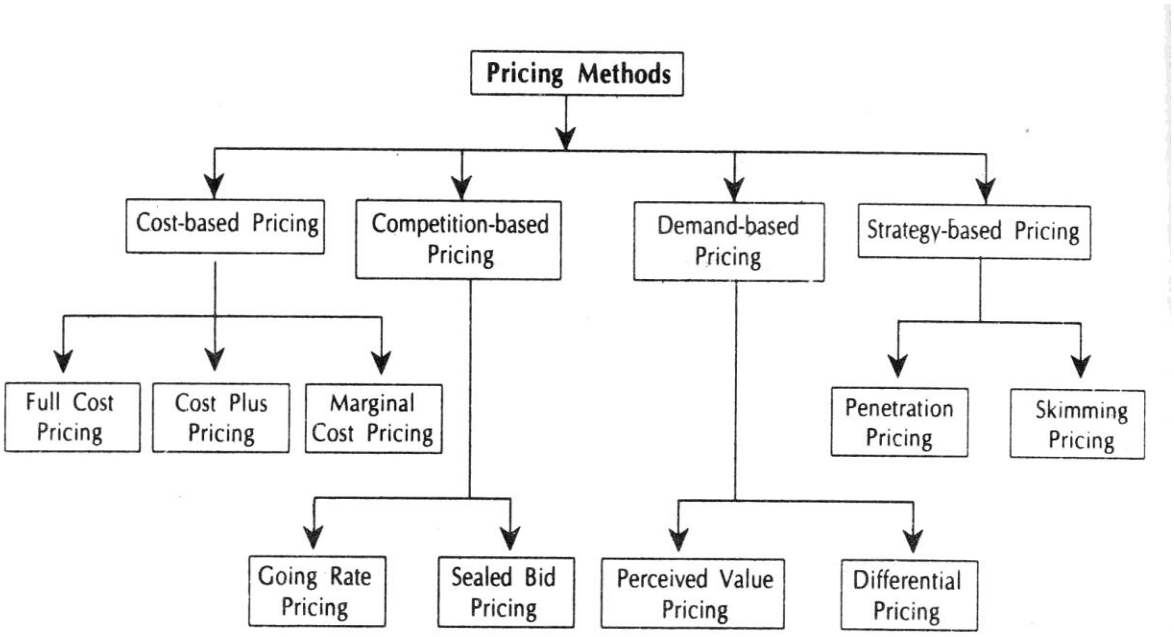
PRICING METHODS

The micro – economic principle of profit maximization suggests pricing by the marginal analysis. That is by equating MR to MC. However the pricing methods followed by the firms in practice around the world rarely follow this

procedure. This is for two reasons; uncertainty with regard to demand and cost function and the deviation from the objective of short run profit maximization.

It was seen that there is no unique theory of firm behavior. While profit certainly on important variable for which every firm cares. Maximization of short – run profit is not a popular objective of a firm today. At the most firms seek maximum profit in the long run. If so the problem is dynamic and its solution requires accurate knowledge of demand and cost conditions over time. Which is impossible to come by?

In view of these problems economic prices are a rare phenomenon. Instead, firms set prices for their products through several alternative means. The important pricing methods followed in practice are shown in the chart.



Cost Based Pricing

There are three versions of the cost – based pricing. Full – cost or break even pricing, cost plus pricing and the marginal cost pricing. Under the first version, price just equals the average (total) cost. In the second version, some mark-up is added to the average cost in arriving at the price. In the last version, price is set equal to the marginal cost. While all these methods appear to be easy and straight forward, they are in fact associated with a number of difficulties. Even through difficulties are there, the cost- oriented pricing is quite popular today.

The cost – based pricing has several strengths as well as limitations. The advantages are its simplicity, acceptability and consistency with the target rate of return on investment and the price stability in general. The limitations are difficulties in getting accurate estimates of cost (particularly of the future cost rather than the historic cost) Volatile nature of the variable cost and its ignoring of the demand side of the market etc.

Competition based pricing

Some commodities are priced according to the competition in their markets. Thus we have the going rate method of price and the sealed bid pricing technique. Under the former a firm prices its new product according to the prevailing prices of comparable products in the market. If the product is new in the country, then its import cost – inclusive of the costs of certificates, insurance, and freight and customs duty, is used as the basis for pricing, Incidentally, the price is not necessarily equal to the import cost, but to the firm is either new in the country, or is a close substitute or complimentary to some other products, the prices of hitherto existing bands or / and of the related goods are taken in to a account while deciding its price. Thus, when television was first manufactures in India, its import cost must have been a guiding force in its price determination. Similarly, when

maruti car was first manufactured in India, it must have taken into account the prices of existing cars, price of petrol, price of car accessories, etc. Needless to say, the going rate price could be below or above the average cost and it could even be an economic price.

The sealed bid pricing method is quite popular in the case of construction activities and in the disposition of used produces. In this method the prospective seller (buyers) are asked to quote their prices through a sealed cover, all the offers are opened at a preannounce time in the presence of all the competitors, and the one who quoted the least is awarded the contract (purchase / sale deed). As it sound, this method is totally competition based and if the competitors unit by any change, the buyers (seller) may have to pay (receive) an exorbitantly high (too low) price, thus there is a great degree of risk attached to this method of pricing.

Demand Based Pricing

The demand – based pricing and strategy – based pricing are quite related. The seller knows rather well that the demand for its product is a decreasing function of the price its sets for product. Thus if seller wishes to sell more he must reduce the price of his product, and if he wants a good price for his product, he could sell only a limited quantity of his good. Demand oriented pricing rules imply establishment of prices in accordance with consumer preference and perceptions and the intensity of demand.
Two general types demand oriented pricing rules can be identified.

i. Perceived value pricing and
ii. Differential pricing

Perceived value pricing considers the buyer's perception of the value of the product ad the basis of pricing. Here the pricing rule is that the firm must develop procedures for measuring the relative value of the product as perceived by consumers. Differential pricing is nothing but price discrimination. In involves selling a product or service for different prices in different market segments. Price differentiation depends on geographical location of the consumers, type of consumer, purchasing quantity, season, time of the service etc. E.g. Telephone charges, APSRTC charges.

Strategy based pricing (new product pricing)

A firm which products a new product, if it is also new to industry, can earn very good profits it if handles marketing carefully, because of the uniqueness of the product. The price fixed for the new product must keep the competitors away. Earn good profits for the firm over the life of the product and must help to get the product accepted. The company can select either skimming pricing or penetration pricing.

While there are some firms, which follow the strategy of price penetration, there are some others who opt for price – skimming. Under the former, firms sell their new product at a low price in the beginning in order to catch the attention of consumers, once the product image and credibility is established, the seller slowly starts jacking up the price to reap good profits in future. Under this strategy, a firm might well sell its product below the cost of production and thus runs into losses to start with but eventually it recovers all its losses and even makes good overall profits. The Rin washing soap perhaps falls into this category. This soap was sold at a rather low price in the beginning and the firm even distributed free samples. Today, it is quite an expensive brand and yet it is selling very well. Under the price – skimming strategy, the new product is priced high in the beginning, and its price is reduced gradually as it faces a dearth of buyers such a strategy may be beneficial for products, which are fancy, but of poor quality and / or of insignificant use over a period of time.

A prudent producer follows a good mix of the various pricing methods rather than adapting any once of them. This is because no method is perfect and every method has certain good features further a firm might adopt one method at one time and another method at some other accession.

Market Creaming or skimming Pricing:

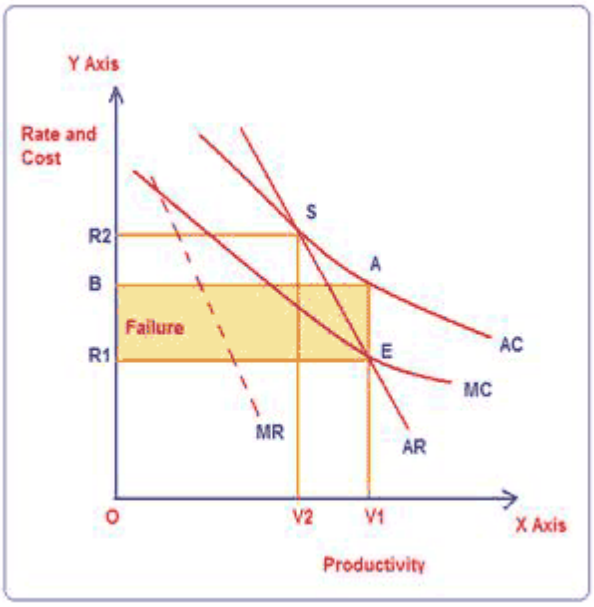
In most skimming, goods are sold at higher prices so that fewer sales are needed to break even. Selling a product at a high price, sacrificing high sales to gain a high profit is therefore "skimming" the market. Skimming is usually employed to reimburse the cost of investment of the original research into the product: commonly used in electronic markets when a new range, such as DVD players, are firstly dispatched into the market at a high price. This strategy is often used to target "early adopters" of a product or service. Early adopters generally have a relatively lower price-sensitivity - this can be attributed to: their need for the product outweighing their need to economize; a greater understanding of the product's value; or simply having a higher disposable income. It will maximize profits for the better of the company This strategy is employed only for a limited duration to recover most of the investment made to build the product. To gain further market share, a seller must use other pricing tactics such as economy or penetration. This method can have some setbacks as it could leave the product at a high price against the competition.

Average Cost Pricing

Nevertheless, for non-profit organisation, average cost pricing is extensively used doctrine. In this doctrine, government does not offer grant to hold the organisation continuing. In this strategy, rate is determined at the level paritying to AC. Nevertheless, in this average cost the fair return on capital is incorporated. The fair return on capital is cost of capital. In

the below diagram 2, average cost curve AC integrates fair return on capital. Let us assume the below diagram where AR curve is cutting AC curve at point S. As per it, under average cost pricing does not aim at optimising profit V2 is manufactured. Though average cost pricing doctrine does not goal at optimising profits and in its place it only assures fair or usual return on capital, full economic efficacy in resource distribution is not accomplished under it. It is to be noted from the below diagram, that productivity under average cost pricing doctrine is lower and rate larger than under marginal cost doctrine.

Thus, average cost, pricing doctrine is regarded as second best rate strategy hence marginal cost pricing strategy; though it makes sure optimum economic efficacy needs subsidy which due to financial restraint regime is frequently not able to pay. Nevertheless, there is a significant censure of average cost pricing strategy, usually organisations with makes sure of fair return on capital inflate their costs by paying huge salaries to their workers or by paying huge perquisites to their marginal staff. This is for the reason that whatever their cost they will add fair return on capital to determine the price of their commodity or service. They will still claim to be working on no-profit doctrine. In such crate, prices are hiked at higher level which creates a lot of economic inefficacy in resource distribution. Apart from it, average cost doctrine becomes a tool in the hands of organisation which seek to cover up their operational inefficacy by declaring higher average cost of manufacturing so as to set price at a huger level. The burden of this is tolerated by the consumers who get the commodities or services at a larger price though organisations claim to be working on profit basis. In-fact this is the case in a developing nation whereas public organisation such as railways, postal department have been hiking passenger rates, freight rates and postal charges on the pretext of rise in average cost of manufacturing which is in-fact due to their gross operational inefficacies.



Limit Pricing

Limit pricing has similarities to predatory pricing, in that a dominant firm sets prices in order to clear the field and/or create barries to entry. Limit pricing goes further, entirely clearing the playing feild and blocking all entry. This strategy is usueally use by a monopolist or members of an oligopoly. Rather than controlling prices directly, limit pricing increases output to the point where prices in the market drop to levels lower than new entrants can afford to charge.

Illustration of a successful limit pricing strategy.

Two companies are competing for a market segement. Both companies have perfect information. Company A is already in the market and is making a monopolistic profit. Company B is considering entry into the market segment to take some

of the profits from company A. Company A is not keen on the idea. So, to discourge company B from entering the market, company A begins to sell its products below the monopolistic price (or threatens to sell its products below the monopolistic price if company B decides to enter the market). This action would reduce or eliminate any potiental future profits company B would make if it entered the market segment. Ultimately company B decides the profit margins are to low and forfeits entering the market segment. Company A continues making monopolist profits. An unseccessful limit pricing strategy can occurs if one of the firms involved cannot make the rational link between costs and future profits.

PRINCIPLE "For limit pricing to effectively prevent entry by rational competitors, the pre-entry price must be linked to the post-entry profits of potential entrants."

INTERNET PRCING

Flat Rate Pricing

A **flat fee**, also referred to as a **flat rate** or a **linear rate**, refers to a pricing structure that charges a single fixed fee for a service, regardless of usage.[1] Less commonly, the term may refer to a rate that does not vary with usage or time of use.
For Internet service providers, flat rate is access to the Internet at all hours and days of the year (linear rate) and for all customers of the Telco operator (universal) at a fixed and cheap tariff.
Flat rate is common in broadband access to the Internet in the USA and many other countries.

A **charge tariff** is a class of linear rate, different from the flat rate, where the user is charged by the uploads and downloads (data transfers). Some GPRS / data UMTS access to the Internet in some countries of Europe has no flat rate pricing, following the traditional "metered mentality". Because of this, users prefer using fixed lines (with narrow or broadband access) to connect to the Internet. A **wavy rate** is not a linear rate, because the Internet surfer pays the monthly fixed price to use the connection only during a certain range of hours of the day (i.e. only in the morning or, more typically, only at night).

Advantages:

- A business can develop a dependable stance in a market, as consumers have a well-rounded price before the service is undertaken. For instance, a technician may charge $150 for his labour.
- Potential costs can be covered. The service may result in inevitable expenses like the parts needed to fix the issue or the items required to complete the order.
- No restricted structure is needed, as the pricing system can be adjusted to suit the business using it. Management can thus work out the pricing that best matches the company’s objectives, efforts, costs, etc.

Disadvantages:

- The fixed pricing restricts the company’s capability to meet the needs of individual consumers, and people search for cheaper alternatives.
- Pricing competition thickens, with other companies in the same industry compete for the lowest pricing, and tough competition occurs.
- Inflation can cause unprecedented loses, and companies must raise the charge to keep up with costs.

Usage Sensitive Pricing
Users pay a portion of their Internet bill for a connection, but not on how many times the connection is activated and a portion for each bit sent and/or received. The marginal monetary cost of sending or receiving another bit is non-zero during the time period. This is again evident by the services provided by the broadband service provider who charges on the basis of information volume exchanged, say in terms of megabytes or gigabytes, and not on the time the connection stays online.

Transaction-based pricing
Like usage-sensitive pricing, the marginal monetary cost of sending and/or receiving another bit is non-zero. However, the prices are determined by the characteristics of the transaction and not by the number of bits. This type is yet to gain popularity in India.

Again the type of pricing will be best judged by the consumers of the service. Effectively they will decide the level of speed of service they require and what policy effectively suits their usage. Often the viability of the services will be a key factor in the decision process, since it may not be often be possible in case of deciding the pricing policy, how to estimate the cost driver, say in case of flat rate pricing, how long the connection was online, or for usage sensitive pricing, what volume of data exchange has actually taken place. Network statistics collected for the same has more often than not, indicated very irregular usage patterns.

Since today, the internet has become an indispensable commodity of our life and business, a lot of research based on economics is needed to be done, so that more efficient models may be devised to actually give suitable incentives to the end user to shift to a better service, and to upgrade the technology of service providing, that of broadband. As of now, since the industry is in its nascent stage, the economics are yet to be applied to it. But ultimately, for this fast growing business to survive, economics is the key, and so is research in the same field to actually understand a lot of other issues too, that are facing the internet, from bundling of information data, to providing incentives to manufacture information by providing suitable incentives and intellectual copyrights. As such, since it is a new field, a lot of study is yet to be done on the same for this fast development to be sustainable in the long run.

Priority Pricing In this model, the users pay according to the quality of service chosen by them. This comes close to the price-discrimination model of the old economy. Another variant of this is the increasing block tariff used in electricity pricing, wherein the user pays a fixed amount for thoe first block of units, a higher amount for the next block, and so on. Priority service offers a menu of contingent contracts for distribution of scarce supplies. Prices inducing customer's efficient self-selection are expectations of spot prices for comparable service. Customers' selections reveal the benefit of capacity expansion. Priority service can be implemented via sale of "priority points" or via provision of compensatory insurance. Several priority classes suffice to obtain most efficiency gains. Priority service Pareto dominates random rationing if excess revenue is refunded equally to customers.

THEORIES OF THE FIRM

Growth Maximisation Theory of Marris:

Robin Marris in his book The Economic Theory of ‘Managerial’ Capitalism (1964) has developed a dynamic balanced growth maximising model of the firm. He concentrates on the proposition that modem big firms are managed by managers and the shareholders are the owners who decide about the management of the firms.

The managers aim at the maximisation of the growth rate of the firm and the shareholders aim at the maximisation of their dividends and share prices. To establish a link between such a growth rate and the share prices of the firm, Marris develops a balanced growth model in which the manager chooses a constant growth rate at which the firm’s sales, profits, assets, etc. grow.

Working on the principle of segregation of managers from owners, Marris proposed that owners (shareholders) aim at profits and market share, whereas managers aim at better salary, job security and growth. These two sets of goals can be achieved by maximising balanced growth of the firm (G), which is dependent on ihe growth rate of demand for the firm's products (GD) and growth rate of capital supply to the firm (GC). Hence growth rate of the firm is balanced when the demand for its product and the capital

supply to the firm grow at the same rate.

GR = GD = GC.

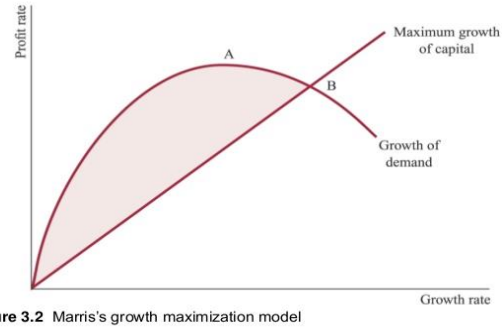


Figure 3.2 Marris's growth maximization model

As the rate of growth of demand is increased, profitability is increased until a certain point. Then managerial constraints on growth tend to take place.

- The maximum growth of capital function shows the relationship between the firm's rate of profit and the maximum rate at which the firm is able to increase its capital
- This model suggests several testable hypothesis one of which is: "owner controlled firms achieve lower growth and higher profits".

the objective of the firm is to maximise its balanced growth rate, G. The **G** itself depends on two factors: First, the rate of growth of demand for the firm's product, GD; and second, the rate of growth of capital supply, GC. Thus G = GD = GC.

which are explained below:

i. Managerial Constraint

Among managerial constraints, Marris stressed on the importance of the role of human resource in achieving organisational objectives. According to him, skills, expertise, efficiency and sincerity of team managers are vital to the growth of the firm. Non availability of managerial skill sets in required size creates constraints for growth: organisations on their high levels of growth may face constraint of skill ceiling among the existing employees. New recruitments may be used to increase the size of the managerial pool with desired skills; however new recruits lack experience to make quick decisions, which may pose as another constraint.

ii. Financial Constraint

This relates to the prudence needed in managing financial resources. Marris suggested that a prudent financial policy will be based on at least three financial ratios, which in turn set the limit for the growth of the firm. In order to prove their discretion managers will normally create a tradeoff and prefer a moderate debt equity ratio (rj), moderate liquidity ratio (r2) and moderate retained profit ratio (r3)

(a) Debt equity ratio (r1) This is the ratio between borrowed capital and owners* capital. High value of debt equity ratio may cause insolvency; hence a low value of this ratio is usually preferred by managers to avoid insolvency. However, a low value of r, may create a constraint to the growth of the firm in terms of dependence on high cost capital, i.e., equity.

(b) Liquidity ratio (r2) This is the ratio between current assets and current liabilities and is an indicator of coverage provided by current assets to current liabilities. According to Marris, a manager would try to

operate in a region where there is sufficient liquidity and safety and hence would prefer a high liquidity ratio. But a high r2 would imply low yielding assets, since liquid assets either do not earn at all (like cash and inventory), or earn low returns (like short term securities).

(c) Retention ratio (r3) This is the ratio between retained profits and total profits. In other words, it is the inverse of dividend payout ratio, i.e., the retained profits are that portion of net profit which is not distributed among shareholders. A high retention ratio is good for growth, as retained profits provide internal source of funds. However, a higher r3 would imply greater volume of retained profits, which may antagonise the shareholders. Hence managers cannot afford to keep a very high value of retention ratio.

Assumptions: The Marris model is based on the following assumptions:

1. It assumes a given price structure.

2. Production costs are given.

3. There is no oligopolistic interdependence.

4. Factor prices are constant.

5. Finns are assumed to grow through diversification.

6. All major variables such as profits, sales and costs are assumed to increase at the same rate.

Criticisms:

Marris's growth-maximisation model has been severely criticised for its over-simplified assumptions by Koutsoyiannis and Hawkins.

1. Marris assumes a given price structure for the firms. He, therefore, does not explain how prices of products are determined in the market. This is a serious weakness of his model.

2. Another defect of this model is that it ignores the problem of oligopolistic interdependence of firms in non-collusive market.

3. This model also does not analyse interdependence created by non-price competition.

4. The model assumes that firms can grow continuously by creating new products. This is unrealistic because no firm can sell anything to the consumers. After all, consumers have their preferences for certain brands which also change when new products enter the market.

5. According to Koutsoyiannis, "Marris's model is applicable basically to those firms which produce consumers' goods. The model is not appropriate for analysing the behaviour of manufacturing businesses or traders."

6. Marris lumps together advertising and R&D expenses in his model. This is a serious shortcoming of the model because the effectiveness of these two variables is not the same in any given period.

Williamson's Managerial Discretionary Theory:

The theory of Managerial Utility Maximisation was developed separately by Berle-Means-Galbralth and Williamson. It is also known as Managerial Discretion Theory. The Theory is based on the concept that shareholders or owners of the firm and managers are (two separate groups. The owners or the shareholders want high dividends and are. therefore, interested In maximising profits, the managers, on the other hand, have different motives other than profit maximisation.

Once the managers have achieved a level of profit that will pay satisfactory dividends to shareholders and still ensure growth.

they are free to increase their own emoluments and also the size of their staff and expenditure on them. In the words of Williamson, "7b the extent that the pressure from the capital market and competition in the product market is imperfect, the manager, therefore, has discretion to pursue goals other than profits." Further Berle and Means suggested that "The lack of corporate democracy leaues owners or shareholders with little or no power to change corporation policy."

According to Williamson, "Managerial Utility function may be expressed as follows:

U = f(S, M. ID)

It will be read: Managerial utility is a function (f) of additional expenditure on staff, managerial emoluments and discretionary investment.

(Here, U = managerial utility; S = additional expenditure on staff; M = managerial emoluments and ID = discretionary investment).

Managerial utility function maximises the utility of the managers rather than profits of the firm. The manager is expected to follow policies which maximise the following components of his utility function.

i. Expansion of Staff: The manager will like to increase the quality and number of staff reporting to him. This will lead to an increase in the salary of the staff. More staff are valued because they lead to the manager getting more salary, more prestige and more security.

ii. Increase in Managerial Emoluments: Managerial Utility also depends on managerial emoluments. It includes facilities like entertainment allowance, luxurious office, staff car, company phone, etc. Expenditure of this nature reflects to a large extent the prestige, power and status of the manager.

iii. Discretionary Power of Investment: Managerial utility also depends on the discretion of the manager to undertake investment beyond those required for normal operations. The manager is in a position to invest in advanced technology and modem plants. Such investments may or may not be economically efficient. These investments may be undertaken for the self-satisfaction of the manager.

According to the theory, in a firm, shareholders and managers are two separate groups. The firm tries to get maximum returns on investment and get maximum profit, whereas managers try to maximize profit in their satisfying function.

At last, Williamson’s managerial discretion theory shows the utility function of a manager. In this theory, the firm will try to get maximum returns or maximum profit where as manager try to maximum utility satisfying function. They are in equilibrium when the utility has maximum amount.

These are the parameters against which we can evaluate each of the available forms of business organizations.

UNIT-IV

BUSINESS AND NEW ECONOMIC ENVIRONMENT

Introduction A business is any activity that provides goods or services to consumers for the purpose of making a profit. When Steve Jobs and Steve Wozniak created Apple Computer in Jobs's family garage, they started a business. The product was the Apple I, and the company's founders hoped to sell their computers to customers for more than it cost to make and market them. If they were successful (which they were), they'd make a profit. Before we go on, let's make a couple of important distinctions concerning the terms in our definitions. First, whereas Apple produces and sells goods (iPhone, iPod, Mac), many businesses provide services. Your bank is a service company, as is your Internet provider. Airlines, law firms, movie theaters, and hospitals are also service companies. Many companies provide both goods and services. For example, your local car dealership sells goods (cars) and also provides services (automobile repairs). Second, some organizations are not set up to make profits. Many are established to provide social or educational services. Such not-for-profit (or nonprofit) organizations include the United Way of America, Habitat for Humanity, the Boys and Girls Clubs, the Sierra Club, the American Red Cross, and many colleges and universities. Most of these organizations, however, function in much the same way as a business. They establish goals and work to meet them in an effective, efficient manner. Thus, most of the business principles introduced in this text also apply to nonprofits.

Business Participants and Activities

Let's begin our discussion of business by identifying the main participants of business and the functions that most businesses perform. Then we'll finish this section by discussing the external factors that influence a business's activities.

Participants

Every business must have one or more owners whose primary role is to invest money in the business. When a business is being started, it's generally the owners who polish the business idea and bring together the resources (money and people) needed to turn the idea into a business. The owners also hire employees to work for the company and help it reach its goals. Owners and employees depend on a third group of participants—customers. Ultimately, the goal of any business is to satisfy the needs of its customers.

Functional Areas of Business

The activities needed to operate a business can be divided into a number of functional areas: management, operations, marketing, accounting, and finance. Let's briefly explore each of these areas.

Management

Managers are responsible for the work performance of other people.Management involves planning for, organizing, staffing, directing, and controlling a company's resources so that it can achieve its goals. Managersplan by setting goals and developing strategies for achieving them. Theyorganize activities and resources to ensure that company goals are met. They staff the organization with qualified employees and direct them to accomplish organizational goals. Finally, managers design controls for assessing the success of plans and decisions and take corrective action when needed.

Operations

All companies must convert resources (labour, materials, money, information, and so forth) into goods or services. Some companies, such as Apple, convert resources into tangible products—iPhones, iPods, Macs. Others, such as hospitals, convert resources into intangible products—health care. The person who designs and oversees the transformation of resources into goods or services is called an operations manager. This individual is also responsible for ensuring that products are of high quality.

Marketing

Marketing consists of everything that a company does to identify customers' needs and design products to meet those needs. Marketers develop the benefits and features of products, including price and quality. They also decide on the best method of delivering products and the best means of promoting them to attract and keep customers. They manage relationships with customers and make them aware of the organization's desire and ability to satisfy their needs.

Accounting

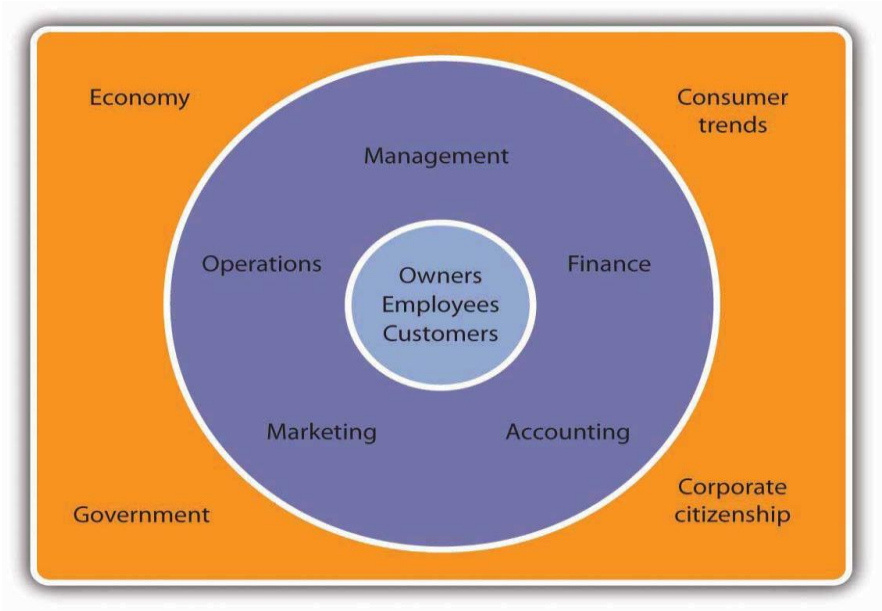
Managers need accurate, relevant, timely financial information, and accountants provide it.Accountants measure, summarize, and communicate financial and managerial information and advise other managers on financial matters. There are two fields of accounting. Financial accountantsprepare financial statements to help users, both inside and outside the organization, assess the financial strength of the company. Managerial accountants prepare information, such as reports on the cost of materials used in the production process, for internal use only.

Finance

Finance involves planning for, obtaining, and managing a company's funds. Finance managers address such questions as the following: How much money does the company need? How and where will it get the necessary money? How and when will it pay the money back? What should it do with its funds? What investments should be made in plant and equipment? How much should be

spent on research and development? How should excess funds be invested? Good financial management is particularly important when a company is first formed, because new business owners usually need to borrow money to get started.

Business and its Environment



External Forces That Influence Business Activities

Apple and other businesses don't operate in a vacuum: they're influenced by a number of external factors. These include the economy, government, consumer trends, and public pressure to act as good corporate citizens. "Business and Its Environment" sums up the relationship among the participants in a business, its functional areas, and the external forces that influence its activities. One industry that's clearly affected by all these factors is the fast food industry. A strong economy means people have more money to eat out at places where food standards are monitored by a governmentagency, the Food and Drug Administration. Preferences for certain types of foods are influenced byconsumer trends (eating fried foods might be okay one year and out the next). Finally, a number of decisions made by the industry result from its desire to be a good corporate citizen.

SOLE TRADER

The sole trader is the simplest, oldest and natural form of business organization. It is also called sole proprietorship. 'Sole' means one. 'Sole trader' implies that there is only one trader who is the owner of the business.

It is a one-man form of organization wherein the trader assumes all the risk of ownership carrying out the business with his own capital, skill and intelligence. He is the boss for himself. He has total operational freedom. He is the owner, Manager and controller. He has total freedom and flexibility. Full control lies with him. He can take his own decisions. He can choose or drop a particular product or business based on its merits. He need not discuss this with anybody. He is responsible for himself. This form of organization is popular all over the world. Restaurants, Supermarkets, pan shops, medical shops, hosiery shops etc.

Features

- It is easy to start a business under this form and also easy to close.
- He introduces his own capital. Sometimes, he may borrow, if necessary
- He enjoys all the profits and in case of loss, he lone suffers.
- He has unlimited liability which implies that his liability extends to his personal properties in case of loss.
- He has a high degree of flexibility to shift from one business to the other.
- Business secretes can be guarded well
- There is no continuity. The business comes to a close with the death, illness or insanity of the sole trader. Unless, the legal heirs show interest to continue the business, the business cannot be restored.
- He has total operational freedom. He is the owner, manager and controller.
- He can be directly in touch with the customers.
- He can take decisions very fast and implement them promptly.

- Rates of tax, for example, income tax and so on are comparatively very low.

Advantages
The following are the advantages of the sole trader from of business organization:

1. **Easy to start and easy to close**: Formation of a sole trader from of organization is relatively easy even closing the business is easy.
2. **Personal contact with customers directly:** Based on the tastes and preferences of the customers the stocks can be maintained.
3. **Prompt decision-making:** To improve the quality of services to the customers, he can take any decision and implement the same promptly. He is the boss and he is responsible for his business Decisions relating to growth or expansion can be made promptly.
4. **High degree of flexibility:** Based on the profitability, the trader can decide to continue or change the business, if need be.
5. **Secrecy:** Business secrets can well be maintained because there is only one trader.
6. **Low rate of taxation:** The rate of income tax for sole traders is relatively very low.
7. **Direct motivation:** If there are profits, all the profits belong to the trader himself. In other words. If he works more hard, he will get more profits. This is the direct motivating factor. At the same time, if he does not take active interest, he may stand to lose badly also.
8. **Total Control:** The ownership, management and control are in the hands of the sole trader and hence it is easy to maintain the hold on business.
9. **Minimum interference from government:** Except in matters relating to public interest, government does not interfere in the business matters of the sole trader. The sole trader is free to fix price for his products/services if he enjoys monopoly market.
10. **Transferability:** The legal heirs of the sole trader may take the possession of the business.

Disadvantages
The following are the disadvantages of sole trader form:

1. **Unlimited liability:** The liability of the sole trader is unlimited. It means that the sole trader has to bring his personal property to clear off the loans of his business. From the legal point of view, he is not different from his business.
2. **Limited amounts of capital:** The resources a sole trader can mobilize cannot be very large and hence this naturally sets a limit for the scale of operations.
3. **No division of labour:** All the work related to different functions such as marketing, production, finance, labour and so on has to be taken care of by the sole trader himself. There is nobody else to take his burden. Family members and relatives cannot show as much interest as the trader takes.
4. **Uncertainty:** There is no continuity in the duration of the business. On the death, insanity of insolvency the business may be come to an end.
5. **Inadequate for growth and expansion:** This from is suitable for only small size, one-man-show type of organizations. This may not really work out for growing and expanding organizations.
6. **Lack of specialization:** The services of specialists such as accountants, market researchers, consultants and so on, are not within the reach of most of the sole traders.
7. **More competition:** Because it is easy to set up a small business, there is a high degree of competition among the small businessmen and a few who are good in taking care of customer requirements along can service.
8. **Low bargaining power:** The sole trader is the in the receiving end in terms of loans or supply of raw materials. He may have to compromise many times regarding the terms and conditions of purchase of materials or borrowing loans from the finance houses or banks.

18) Explain partnership concept.

PARTNERSHIP

Partnership is an improved from of sole trader in certain respects. Where there are like-minded persons with resources, they can come together to do the business and share the profits/losses of the business in an agreed ratio. Persons who have entered into such an agreement are individually called ‘partners’ and collectively called ‘firm’. The relationship among partners is called a partnership.

Indian Partnership Act, 1932 defines partnership as the relationship between two or more persons who agree to share the profits of the business carried on by all or any one of them acting for all.

Features

1. **Relationship:** Partnership is a relationship among persons. It is relationship resulting out of an agreement.
2. **Two or more persons:** There should be two or more number of persons.
3. **There should be a business**: Business should be conducted.
4. **Agreement:** Persons should agree to share the profits/losses of the business
5. **Carried on by all or any one of them acting for all:** The business can be carried on by all or any one of the persons acting for all. This means that the business can be carried on by one person who is the agent for all other persons. Every partner is both an agent and a principal. Agent for other partners and principal for himself. All the partners are agents and the 'partnership' is their principal.

The following are the other features:

(a) **Unlimited liability:** The liability of the partners is unlimited. The partnership and partners, in the eye of law, and not different but one and the same. Hence, the partners have to bring their personal assets to clear the losses of the firm, if any.
(b) **Number of partners:** According to the Indian Partnership Act, the minimum number of partners should be two and the maximum number if restricted, as given below:

- 10 partners is case of banking business
- 20 in case of non-banking business

(c) **Division of labour:** Because there are more than two persons, the work can be divided among the partners based on their aptitude.
(d) **Personal contact with customers:** The partners can continuously be in touch with the customers to monitor their requirements.
(e) **Flexibility:** All the partners are likeminded persons and hence they can take any decision relating to business.

Partnership Deed

The written agreement among the partners is called 'the partnership deed'. It contains the terms and conditions governing the working of partnership. The following are contents of the partnership deed.

1. Names and addresses of the firm and partners
2. Nature of the business proposed
3. Duration
4. Amount of capital of the partnership and the ratio for contribution by each of the partners.
5. Their profit sharing ration (this is used for sharing losses also)
6. Rate of interest charged on capital contributed, loans taken from the partnership and the amounts drawn, if any, by the partners from their respective capital balances.
7. The amount of salary or commission payable to any partner
8. Procedure to value good will of the firm at the time of admission of a new partner, retirement of death of a partner
9. Allocation of responsibilities of the partners in the firm
10. Procedure for dissolution of the firm
11. Name of the arbitrator to whom the disputes, if any, can be referred to for settlement.
12. Special rights, obligations and liabilities of partners(s), if any.

KIND OF PARTNERS

The following are the different kinds of partners:

1. **Active Partner:** Active partner takes active part in the affairs of the partnership. He is also called working partner.
2. **Sleeping Partner:** Sleeping partner contributes to capital but does not take part in the affairs of the partnership.
3. **Nominal Partner:** Nominal partner is partner just for namesake. He neither contributes to capital nor takes part in the affairs of business. Normally, the nominal partners are those who have good business connections, and are well places in the society.
4. **Partner by Estoppels:** Estoppels means behavior or conduct. Partner by estoppels gives an impression to outsiders that he is the partner in the firm. In fact be neither contributes to capital, nor takes any role in the affairs of the partnership.

5. **Partner by holding out:** If partners declare a particular person (having social status) as partner and this person does not contradict even after he comes to know such declaration, he is called a partner by holding out and he is liable for the claims of third parties. However, the third parties should prove they entered into contract with the firm in the belief that he is the partner of the firm. Such a person is called partner by holding out.
6. **Minor Partner:** Minor has a special status in the partnership. A minor can be admitted for the benefits of the firm. A minor is entitled to his share of profits of the firm. The liability of a minor partner is limited to the extent of his contribution of the capital of the firm.

Right of partners
Every partner has right

(a) To take part in the management of business
(b) To express his opinion
(c) Of access to and inspect and copy and book of accounts of the firm
(d) To share equally the profits of the firm in the absence of any specific agreement to the contrary
(e) To receive interest on capital at an agreed rate of interest from the profits of the firm
(f) To receive interest on loans, if any, extended to the firm.
(g) To be indemnified for any loss incurred by him in the conduct of the business
(h) To receive any money spent by him in the ordinary and proper conduct of the business of the firm.

Advantages
The following are the advantages of the partnership from:

1. **Easy to form:** Once there is a group of like-minded persons and good business proposal, it is easy to start and register a partnership.
2. **Availability of larger amount of capital:** More amount of capital can be raised from more number of partners.
3. **Division of labour:** The different partners come with varied backgrounds and skills. This facilities division of labour.
4. **Flexibility:** The partners are free to change their decisions, add or drop a particular product or start a new business or close the present one and so on.
5. **Personal contact with customers**: There is scope to keep close monitoring with customers requirements by keeping one of the partners in charge of sales and marketing. Necessary changes can be initiated based on the merits of the proposals from the customers.
6. **Quick decisions and prompt action:** If there is consensus among partners, it is enough to implement any decision and initiate prompt action. Sometimes, it may more time for the partners on strategic issues to reach consensus.
7. **The positive impact of unlimited liability:** Every partner is always alert about his impending danger of unlimited liability. Hence he tries to do his best to bring profits for the partnership firm by making good use of all his contacts.

Disadvantages:
The following are the disadvantages of partnership:

1. **Formation of partnership is difficult:** Only like-minded persons can start a partnership. It is sarcastically said,' it is easy to find a life partner, but not a business partner'.
2. **Liability:** The partners have joint and several liabilities beside unlimited liability. Joint and several liability puts additional burden on the partners, which means that even the personal properties of the partner or partners can be attached. Even when all but one partner become insolvent, the solvent partner has to bear the entire burden of business loss.
3. **Lack of harmony or cohesiveness:** It is likely that partners may not, most often work as a group with cohesiveness. This result in mutual conflicts, an attitude of suspicion and crisis of confidence. Lack of harmony results in delay in decisions and paralyses the entire operations.
4. **Limited growth:** The resources when compared to sole trader, a partnership may raise little more. But when compare to the other forms such as a company, resources raised in this form of organization are limited. Added to this, there is a restriction on the maximum number of partners.
5. **Instability:** The partnership form is known for its instability. The firm may be dissolved on death, insolvency or insanity of any of the partners.
6. **Lack of Public confidence:** Public and even the financial institutions look at the unregistered firm with a suspicious eye. Though registration of the firm under the Indian Partnership Act is a solution of such problem, this cannot revive public

confidence into this form of organization overnight. The partnership can create confidence in other only with their performance.

19)Explain about the joint stock company?

JOINT STOCK COMPANY

The joint stock company emerges from the limitations of partnership such as joint and several liability, unlimited liability, limited resources and uncertain duration and so on. Normally, to take part in a business, it may need large money and we cannot foretell the fate of business. It is not literally possible to get into business with little money. Against this background, it is interesting to study the functioning of a joint stock company. The main principle of the joint stock company from is to provide opportunity to take part in business with a low investment as possible say Rs.1000. Joint Stock Company has been a boon for investors with moderate funds to invest.

The word ‘ company’ has a Latin origin, com means ‘ come together’, pany means ‘ bread’, joint stock company means, people come together to earn their livelihood by investing in the stock of company jointly.

Company Defined

Lord justice Lindley explained the concept of the joint stock company from of organization as ‘an association of many persons who contribute money or money’s worth to a common stock and employ it for a common purpose.

Features

This definition brings out the following features of the company:

1. **Artificial person:** The Company has no form or shape. It is an artificial person created by law. It is intangible, invisible and existing only, in the eyes of law.
2. **Separate legal existence**: it has an independence existence, it separate from its members. It can acquire the assets. It can borrow for the company. It can sue other if they are in default in payment of dues, breach of contract with it, if any. Similarly, outsiders for any claim can sue it. A shareholder is not liable for the acts of the company. Similarly, the shareholders cannot bind the company by their acts.
3. **Voluntary association of persons**: The Company is an association of voluntary association of persons who want to carry on business for profit. To carry on business, they need capital. So they invest in the share capital of the company.
4. **Limited Liability**: The shareholders have limited liability i.e., liability limited to the face value of the shares held by him. In other words, the liability of a shareholder is restricted to the extent of his contribution to the share capital of the company. The shareholder need not pay anything, even in times of loss for the company, other than his contribution to the share capital.
5. **Capital is divided into shares**: The total capital is divided into a certain number of units. Each unit is called a share. The price of each share is priced so low that every investor would like to invest in the company. The companies promoted by promoters of good standing (i.e., known for their reputation in terms of reliability character and dynamism) are likely to attract huge resources.
6. **Transferability of shares**: In the company form of organization, the shares can be transferred from one person to the other. A shareholder of a public company can cell sell his holding of shares at his will. However, the shares of a private company cannot be transferred. A private company restricts the transferability of the shares.
7. **Common Seal**: As the company is an artificial person created by law has no physical form, it cannot sign its name on a paper; so, it has a common seal on which its name is engraved. The common seal should affix every document or contract; otherwise the company is not bound by such a document or contract.
8. **Perpetual succession**: ‘Members may comes and members may go, but the company continues for ever and ever’ A. company has uninterrupted existence because of the right given to the shareholders to transfer the shares.
9. **Ownership and Management separated**: The shareholders are spread over the length and breadth of the country, and sometimes, they are from different parts of the world. To facilitate administration, the shareholders elect some among themselves or the promoters of the company as directors to a Board, which looks after the management of the business. The Board recruits the managers and employees at different levels in the management. Thus the management is separated from the owners.
10. **Winding up**: Winding up refers to the putting an end to the company. Because law creates it, only law can put an end to it in special circumstances such as representation from creditors of financial institutions, or shareholders against the company that their interests are not safeguarded. The company is not affected by the death or insolvency of any of its members.

11. **The name of the company ends with 'limited'**: it is necessary that the name of the company ends with limited (Ltd.) to give an indication to the outsiders that they are dealing with the company with limited liability and they should be careful about the liability aspect of their transactions with the company.

Formation of Joint Stock company

There are two stages in the formation of a joint stock company. They are:

(a) To obtain Certificates of Incorporation
(b) To obtain certificate of commencement of Business

Certificate of Incorporation: The certificate of Incorporation is just like a 'date of birth' certificate. It certifies that a company with such and such a name is born on a particular day.

Certificate of commencement of Business: A private company need not obtain the certificate of commencement of business. It can start its commercial operations immediately after obtaining the certificate of Incorporation.

The persons who conceive the idea of starting a company and who organize the necessary initial resources are called promoters. The vision of the promoters forms the backbone for the company in the future to reckon with.

The promoters have to file the following documents, along with necessary fee, with a registrar of joint stock companies to obtain certificate of incorporation:

(a) **Memorandum of Association**: The Memorandum of Association is also called the charter of the company. It outlines the relations of the company with the outsiders. If furnishes all its details in six clause such as (ii) Name clause (II) situation clause (iii) objects clause (iv) Capital clause and (vi) subscription clause duly executed by its subscribers.
(b) **Articles of association**: Articles of Association furnishes the byelaws or internal rules government the internal conduct of the company.
(c) The list of names and address of the proposed directors and their willingness, in writing to act as such, in case of registration of a public company.
(d) A statutory declaration that all the legal requirements have been fulfilled. The declaration has to be duly signed by any one of the following: Company secretary in whole practice, the proposed director, legal solicitor, chartered accountant in whole time practice or advocate of High court.

The registrar of joint stock companies peruses and verifies whether all these documents are in order or not. If he is satisfied with the information furnished, he will register the documents and then issue a certificate of incorporation, if it is private company, it can start its business operation immediately after obtaining certificate of incorporation.

Advantages

The following are the advantages of a joint Stock Company

1. **Mobilization of larger resources:** A joint stock company provides opportunity for the investors to invest, even small sums, in the capital of large companies. The facilities rising of larger resources.
2. **Separate legal entity:** The Company has separate legal entity. It is registered under Indian Companies Act, 1956.
3. **Limited liability:** The shareholder has limited liability in respect of the shares held by him. In no case, does his liability exceed more than the face value of the shares allotted to him.
4. **Transferability of shares:** The shares can be transferred to others. However, the private company shares cannot be transferred.
5. **Liquidity of investments**: By providing the transferability of shares, shares can be converted into cash.
6. **Inculcates the habit of savings and investments**: Because the share face value is very low, this promotes the habit of saving among the common man and mobilizes the same towards investments in the company.
7. **Democracy in management**: the shareholders elect the directors in a democratic way in the general body meetings. The shareholders are free to make any proposals, question the practice of the management, suggest the possible remedial measures, as they perceive, The directors respond to the issue raised by the shareholders and have to justify their actions.
8. **Economics of large scale production**: Since the production is in the scale with large funds at
9. **Continued existence**: The Company has perpetual succession. It has no natural end. It continues forever and ever unless law put an end to it.
10. **Institutional confidence**: Financial Institutions prefer to deal with companies in view of their professionalism and financial strengths.

11. **Professional management**: With the larger funds at its disposal, the Board of Directors recruits competent and professional managers to handle the affairs of the company in a professional manner.
12. **Growth and Expansion**: With large resources and professional management, the company can earn good returns on its operations, build good amount of reserves and further consider the proposals for growth and expansion.

All that shines is not gold. The company from of organization is not without any disadvantages. The following are the disadvantages of joint stock companies.

Disadvantages

1. **Formation of company is a long drawn procedure**: Promoting a joint stock company involves a long drawn procedure. It is expensive and involves large number of legal formalities.
2. **High degree of government interference**: The government brings out a number of rules and regulations governing the internal conduct of the operations of a company such as meetings, voting, audit and so on, and any violation of these rules results into statutory lapses, punishable under the companies act.
3. **Inordinate delays in decision-making**: As the size of the organization grows, the number of levels in organization also increases in the name of specialization. The more the number of levels, the more is the delay in decision-making. Sometimes, so-called professionals do not respond to the urgencies as required. It promotes delay in administration, which is referred to 'red tape and bureaucracy'.
4. **Lack or initiative**: In most of the cases, the employees of the company at different levels show slack in their personal initiative with the result, the opportunities once missed do not recur and the company loses the revenue.
5. **Lack of responsibility and commitment**: In some cases, the managers at different levels are afraid to take risk and more worried about their jobs rather than the huge funds invested in the capital of the company lose the revenue.
6. **Lack of responsibility and commitment:** In some cases, the managers at different levels are afraid to take risk and more worried about their jobs rather than the huge funds invested in the capital of the company. Where managers do not show up willingness to take responsibility, they cannot be considered as committed. They will not be able to handle the business risks.

20)What is state/public enterprises and explain its types?

PUBLIC ENTERPRISES

Public enterprises occupy an important position in the Indian economy. Today, public enterprises provide the substance and heart of the economy. Its investment of over Rs.10,000 crore is in heavy and basic industry, and infrastructure like power, transport and communications. The concept of public enterprise in Indian dates back to the era of pre-independence.

Genesis of Public Enterprises

In consequence to declaration of its goal as socialistic pattern of society in 1954, the Government of India realized that it is through progressive extension of public enterprises only, the following aims of our five years plans can be fulfilled.

- Higher production
- Greater employment
- Economic equality, and
- Dispersal of economic power

The government found it necessary to revise its industrial policy in 1956 to give it a socialistic bent.

Need for Public Enterprises

The Industrial Policy Resolution 1956 states the need for promoting public enterprises as follows:

- To accelerate the rate of economic growth by planned development
- To speed up industrialization, particularly development of heavy industries and to expand public sector and to build up a large and growing cooperative sector.
- To increase infrastructure facilities
- To disperse the industries over different geographical areas for balanced regional development
- To increase the opportunities of gainful employment
- To help in raising the standards of living

- To reducing disparities in income and wealth (By preventing private monopolies and curbing concentration of economic power and vast industries in the hands of a small number of individuals)

Achievements of public Enterprises
The achievements of public enterprise are vast and varied. They are:

1. Setting up a number of public enterprises in basic and key industries
2. Generating considerably large employment opportunities in skilled, unskilled, supervisory and managerial cadres.
3. Creating internal resources and contributing towards national exchequer for funds for development and welfare.
4. Bringing about development activities in backward regions, through locations in different areas of the country.
5. Assisting in the field of export promotion and conservation of foreign exchange.
6. Creating viable infrastructure and bringing about rapid industrialization (ancillary industries developed around the public sector as its nucleus).
7. Restricting the growth of private monopolies
8. Stimulating diversified growth in private sector
9. Taking over sick industrial units and putting them, in most of the vases, in order,
10. Creating financial systems, through a powerful networking of financial institutions, development and promotional institutions, which has resulted in social control and social orientation of investment, credit and capital management systems.
11. Benefiting the rural areas, priority sectors, small business in the fields of industry, finance, credit, services, trade, transport, consultancy and so on.

Forms of public enterprises
Public enterprises can be classified into three forms:

(a) Departmental undertaking
(b) Public corporation
(c) Government company

These are explained below

Departmental Undertaking

This is the earliest from of public enterprise. Under this form, the affairs of the public enterprise are carried out under the overall control of one of the departments of the government. The government department appoints a managing director (normally a civil servant) for the departmental undertaking. He will be given the executive authority to take necessary decisions. The departmental undertaking does not have a budget of its own. As and when it wants, it draws money from the government exchequer and when it has surplus money, it deposits it in the government exchequer. However, it is subject to budget, accounting and audit controls.

Examples for departmental undertakings are Railways, Department of Posts, All India Radio, Doordarshan, Defence undertakings like DRDL, DLRL, ordinance factories, and such.

Features

1. **Under the control of a government department**: The departmental undertaking is not an independent organization. It has no separate existence. It is designed to work under close control of a government department. It is subject to direct ministerial control.
2. **More financial freedom:** The departmental undertaking can draw funds from government account as per the needs and deposit back when convenient.
3. **Like any other government department**: The departmental undertaking is almost similar to any other government department
4. **Budget, accounting and audit controls**: The departmental undertaking has to follow guidelines (as applicable to the other government departments) underlying the budget preparation, maintenance of accounts, and getting the accounts audited internally and by external auditors.

5. **More a government organization, less a business organization** . The set up of a departmental undertaking is more rigid, less flexible, slow in responding to market needs.

Advantages

1. **Effective control**: Control is likely to be effective because it is directly under the Ministry.
2. **Responsible Executives**: Normally the administration is entrusted to a senior civil servant. The administration will be organized and effective.
3. **Less scope for mystification of funds**: Departmental undertaking does not draw any money more than is needed, that too subject to ministerial sanction and other controls. So chances for mis-utilisation are low.
4. **Adds to Government revenue**: The revenue of the government is on the rise when the revenue of the departmental undertaking is deposited in the government account.

Disadvantages

1. **Decisions delayed**: Control is centralized. This results in lower degree of flexibility. Officials in the lower levels cannot take initiative. Decisions cannot be fast and actions cannot be prompt.
2. **No incentive to maximize earnings**: The departmental undertaking does not retain any surplus with it. So there is no inventive for maximizing the efficiency or earnings.
3. **Slow response to market conditions**: Since there is no competition, there is no profit motive; there is no incentive to move swiftly to market needs.
4. **Redtapism and bureaucracy**: The departmental undertakings are in the control of a civil servant and under the immediate supervision of a government department. Administration gets delayed substantially.
5. **Incidence of more taxes**: At times, in case of losses, these are made up by the government funds only. To make up these, there may be a need for fresh taxes, which is undesirable.

Any business organization to be more successful needs to be more dynamic, flexible, and responsive to market conditions, fast in decision marking and prompt in actions. None of these qualities figure in the features of a departmental undertaking. It is true that departmental undertaking operates as a extension to the government. With the result, the government may miss certain business opportunities. So as not to miss business opportunities, the government has thought of another form of public enterprise, that is, Public corporation.

PUBLIC CORPORATION

Having released that the routing government administration would not be able to cope up with the demand of its business enterprises, the Government of India, in 1948, decided to organize some of its enterprises as statutory corporations. In pursuance of this, Industrial Finance Corporation, Employees' State Insurance Corporation was set up in 1948.

Public corporation is a 'right mix of public ownership, public accountability and business management for public ends'. The public corporation provides machinery, which is flexible, while at the same time retaining public control.

Definition

A public corporation is defined as a 'body corporate create by an Act of Parliament or Legislature and notified by the name in the official gazette of the central or state government. It is a corporate entity having perpetual succession, and common seal with power to acquire, hold, dispose off property, sue and be sued by its name".

Examples of a public corporation are Life Insurance Corporation of India, Unit Trust of India, Industrial Finance Corporation of India, Damodar Valley Corporation and others.

Features

1. **A body corporate**: It has a separate legal existence. It is a separate company by itself. If can raise resources, buy and sell properties, by name sue and be sued.

2. **More freedom and day-to-day affairs**: It is relatively free from any type of political interference. It enjoys administrative autonomy.
3. **Freedom regarding personnel**: The employees of public corporation are not government civil servants. The corporation has absolute freedom to formulate its own personnel policies and procedures, and these are applicable to all the employees including directors.
4. **Perpetual succession**: A statute in parliament or state legislature creates it. It continues forever and till a statue is passed to wind it up.
5. **Financial autonomy**: Through the public corporation is fully owned government organization, and the initial finance are provided by the Government, it enjoys total financial autonomy, Its income and expenditure are not shown in the annual budget of the government, it enjoys total financial autonomy. Its income and expenditure are not shown in the annual budget of the government. However, for its freedom it is restricted regarding capital expenditure beyond the laid down limits, and raising the capital through capital market.
6. **Commercial audit**: Except in the case of banks and other financial institutions where chartered accountants are auditors, in all corporations, the audit is entrusted to the comptroller and auditor general of India.
7. **Run on commercial principles**: As far as the discharge of functions, the corporation shall act as far as possible on sound business principles.

Advantages

1. **Independence, initiative and flexibility**: The corporation has an autonomous set up. So it is independent, take necessary initiative to realize its goals, and it can be flexible in its decisions as required.
2. **Scope for Redtapism and bureaucracy minimized**: The Corporation has its own policies and procedures. If necessary they can be simplified to eliminate redtapism and bureaucracy, if any.
3. **Public interest protected**: The corporation can protect the public interest by making its policies more public friendly, Public interests are protected because every policy of the corporation is subject to ministerial directives and board parliamentary control.
4. **Employee friendly work environment**: Corporation can design its own work culture and train its employees accordingly. It can provide better amenities and better terms of service to the employees and thereby secure greater productivity.
5. **Competitive prices**: the corporation is a government organization and hence can afford with minimum margins of profit, It can offer its products and services at competitive prices.
6. **Economics of scale**: By increasing the size of its operations, it can achieve economics of large-scale production.
7. **Public accountability**: It is accountable to the Parliament or legislature; it has to submit its annual report on its working results.

Disadvantages

1. **Continued political interference**: the autonomy is on paper only and in reality, the continued.
2. **Misuse of Power**: In some cases, the greater autonomy leads to misuse of power. It takes time to unearth the impact of such misuse on the resources of the corporation. Cases of misuse of power defeat the very purpose of the public corporation.
3. **Burden for the government**: Where the public corporation ignores the commercial principles and suffers losses, it is burdensome for the government to provide subsidies to make up the losses.

Government Company

Section 617 of the Indian Companies Act defines a government company as "any company in which not less than 51 percent of the paid up share capital" is held by the Central Government or by any State Government or Governments or partly by Central Government and partly by one or more of the state Governments and includes and company which is subsidiary of government company as thus defined".

A government company is the right combination of operating flexibility of privately organized companies with the advantages of state regulation and control in public interest.

Government companies differ in the degree of control and their motive also.

Some government companies are promoted as

- industrial undertakings (such as Hindustan Machine Tools, Indian Telephone Industries, and so on)

- Promotional agencies (such as National Industrial Development Corporation, National Small Industries Corporation, and so on) to prepare feasibility reports for promoters who want to set up public or private companies.
- Agency to promote trade or commerce. For example, state trading corporation, Export Credit Guarantee Corporation and so such like.
- A company to take over the existing sick companies under private management (E.g. Hindustan Shipyard)
- A company established as a totally state enterprise to safeguard national interests such as Hindustan Aeronautics Ltd. And so on.
- Mixed ownership company in collaboration with a private consult to obtain technical know how and guidance for the management of its enterprises, e.g. Hindustan Cables)

Features

The following are the features of a government company:

1. **Like any other registered company**: It is incorporated as a registered company under the Indian companies Act. 1956. Like any other company, the government company has separate legal existence. Common seal, perpetual succession, limited liability, and so on. The provisions of the Indian Companies Act apply for all matters relating to formation, administration and winding up. However, the government has a right to exempt the application of any provisions of the government companies.
2. **Shareholding**: The majority of the share are held by the Government, Central or State, partly by the Central and State Government(s), in the name of the President of India, It is also common that the collaborators and allotted some shares for providing the transfer of technology.
3. **Directors are nominated**: As the government is the owner of the entire or majority of the share capital of the company, it has freedom to nominate the directors to the Board. Government may consider the requirements of the company in terms of necessary specialization and appoints the directors accordingly.
4. **Administrative autonomy and financial freedom**: A government company functions independently with full discretion and in the normal administration of affairs of the undertaking.
5. **Subject to ministerial control**: Concerned minister may act as the immediate boss. It is because it is the government that nominates the directors, the minister issue directions for a company and he can call for information related to the progress and affairs of the company any time.

Advantages

1. **Formation is easy**: There is no need for an Act in legislature or parliament to promote a government company. A Government company can be promoted as per the provisions of the companies Act. Which is relatively easier?
2. **Separate legal entity**: It retains the advantages of public corporation such as autonomy, legal entity.
3. **Ability to compete:** It is free from the rigid rules and regulations. It can smoothly function with all the necessary initiative and drive necessary to complete with any other private organization. It retains its independence in respect of large financial resources, recruitment of personnel, management of its affairs, and so on.
4. **Flexibility**: A Government company is more flexible than a departmental undertaking or public corporation. Necessary changes can be initiated, which the framework of the company law. Government can, if necessary, change the provisions of the Companies Act. If found restricting the freedom of the government company. The form of Government Company is so flexible that it can be used for taking over sick units promoting strategic industries in the context of national security and interest.
5. **Quick decision and prompt actions**: In view of the autonomy, the government company take decision quickly and ensure that the actions and initiated promptly.
6. **Private participation facilitated**: Government company is the only from providing scope for private participation in the ownership. The facilities to take the best, necessary to conduct the affairs of business, from the private sector and also from the public sector.

Disadvantages

1. **Continued political and government interference**: Government seldom leaves the government company to function on its own. Government is the major shareholder and it dictates its decisions to the Board. The Board of Directors gets these

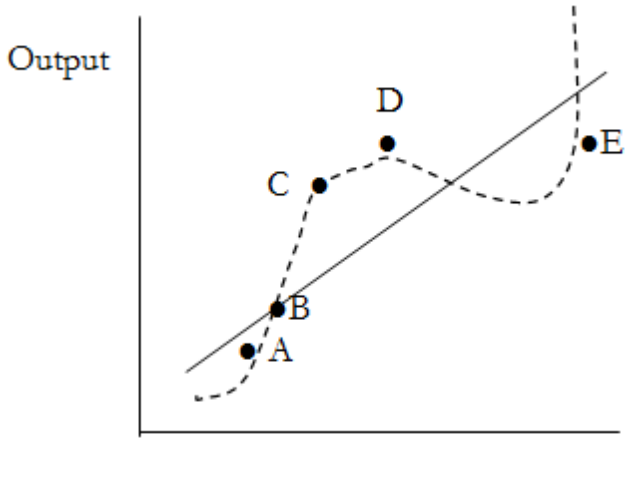
approved in the general body. There were a number of cases where the operational polices were influenced by the whims and fancies of the civil servants and the ministers.

2. **Higher degree of government control**: The degree of government control is so high that the government company is reduced to mere adjuncts to the ministry and is, in majority of the cases, not treated better than the subordinate organization or offices of the government.
3. **Evades constitutional responsibility**: A government company is creating by executive action of the government without the specific approval of the parliament or Legislature.
4. **Poor sense of attachment or commitment**: The members of the Board of Management of government companies and from the ministerial departments in their ex-officio capacity. The lack the sense of attachment and do not reflect any degree of commitment to lead the company in a competitive environment.
5. **Divided loyalties**: The employees are mostly drawn from the regular government departments for a defined period. After this period, they go back to their government departments and hence their divided loyalty dilutes their interest towards their job in the government company.
6. **Flexibility on paper:** The powers of the directors are to be approved by the concerned Ministry, particularly the power relating to borrowing, increase in the capital, appointment of top officials, entering into contracts for large orders and restrictions on capital expenditure. The government companies are rarely allowed to exercise their flexibility and independence.

Business Cycles

The **business cycle** or **economic cycle** is the downward and upward movement of gross domestic product (GDP) around its long-term growth trend.[1] The length of a business cycle is the period of time containing a single boom and contraction in sequence. These fluctuations typically involve shifts over time between periods of relatively rapid economic growth (expansions or booms), and periods of relative stagnation or decline (contractions or recessions).

Business cycles are usually measured by considering the growth rate of real gross domestic product. Despite the often-applied term cycles, these fluctuations in economic activity do not exhibit uniform or predictable periodicity. The common or popular usage **boom-and-bust cycle** refers to fluctuations in which the expansion is rapid and the contraction severe. **Meaning:** The business cycle is the tendency for output and employment to fluctuate around their long-term trends. The figure below presents a stylised description of the business cycle. The continuous line shows the steady growth in trend output over time, while the broken line indicate the actual output over the time period.



Point A represents a slump, the bottom of a business cycle while point B suggests the economy has entered the recovery phase of the cycle. As recovery precedes the output rises to a point C above the trend path; we call this a boom. Then as the line dips via D towards the trend line with output growing less quickly during the recovery and least quickly (perhaps even falling), during a recession.

Features of Business Cycles:

Though different business cycles differ in duration and intensity they have some common features which we explain below:

1. Business cycles occur periodically. Though they do not show same regularity, they have .some distinct phases such as expansion, peak, contraction or depression and trough. Further the duration of cycles varies a good deal from minimum of two years to a maximum of ten to twelve years.

2. Secondly, business cycles are Synchronic. That is, they do not cause changes in any single industry or sector but are of all embracing character. For example, depression or contraction occurs simultaneously in all industries or sectors of the economy. Recession passes from one industry to another and chain reaction continues till the whole economy is in the grip of recession. Similar process is at work in the expansion phase, prosperity spreads through various linkages of input-output relations or demand relations between various industries, and sectors.

3. Thirdly, it has been observed that fluctuations occur not only in level of production but also simultaneously in other variables such as employment, investment, consumption, rate of interest and price level.

4. Another important feature of business cycles is that investment and consumption of durable consumer goods such as cars, houses, and refrigerators are affected most by the cyclical fluctuations. As stressed by J.M. Keynes, investment is greatly volatile and unstable as it depends on profit expectations of private entrepreneurs. These expectations of entrepreneurs change quite often making investment quite unstable. Since consumption of durable consumer goods can be deferred, it also fluctuates greatly during the course of business cycles.

5. An important feature of business cycles is that consumption of non-durable goods and services does not vary much during different phases of business cycles. Past data of business cycles reveal that households maintain a great stability in consumption of non-durable goods.

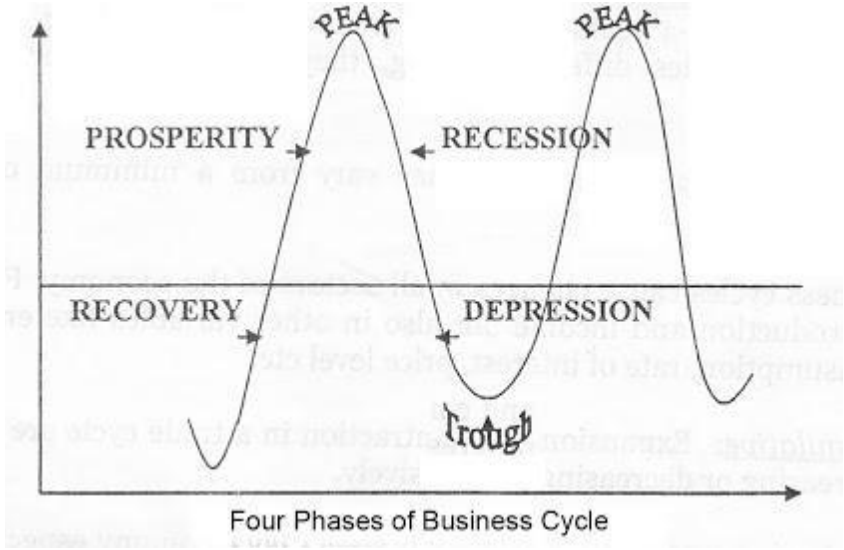
6. The immediate impact of depression and expansion is on the inventories of goods. When depression sets in, the inventories start accumulating beyond the desired level. This leads to cut in production of goods. On the contrary, when recovery starts, the inventories go below the desired level. This encourages businessmen to place more orders for goods whose production picks up and stimulates investment in capital goods.

7. Another important feature of business cycles is profits fluctuate more than any other type of income. The occurrence of business cycles causes a lot of uncertainty for businessmen and makes it difficult to forecast the economic conditions. During the depression period profits may even become negative and many businesses go bankrupt. In a free market economy profits are justified on the ground that they are necessary payments if the entrepreneurs are to be induced to bear uncertainty.

8. Lastly, business cycles are international in character. That is, once started in one country they spread to other countries through trade relations between them. For example, if there is a recession in the USA, which is a large importer of goods from other countries, will cause a fall in demand for imports from other countries whose exports would be adversely affected causing recession in them too. Depression of 1930s in USA and Great Britain engulfed the entire capital world.

Phases of Business Cycle

Four Phases of Business Cycle
Business Cycle (or Trade Cycle) is divided into the following four phases :-
1. **Prosperity Phase** : Expansion or Boom or Upswing of economy.
2. **Recession Phase** : from prosperity to recession (upper turning point).
3. **Depression Phase** : Contraction or Downswing of economy.
4. **Recovery Phase** : from depression to prosperity (lower turning Point).
Diagram of Four Phases of Business Cycle



Four Phases of Business Cycle

The business cycle starts from a trough (lower point) and passes through a recovery phase fo0llowed by a period of expansion (upper turning point) and prosperity. After peak point is reached there is a declinig phase of recession followed by a depression. Again the business cycle continues similarly with ups and downs.

Explanation of Four Phases of Business Cycle

The four phases of a business cycle are briefly explained as follows:-

1. Prosperity Phase

When there is an expansion of output, income, employment, prices and profits, there is also a rise in the standard of living. This period is termed as Prosperity phase. The **features of prosperity** are:-

1. High level of output and trade.
2. High level of effective demand.
3. High level of income and employment.
4. Rising interest rates.
5. Inflation.
6. Large expansion of bank credit.
7. Overall business optimism.
8. A high level of MEC (Marginal efficiency of capital) and investment.

Due to full employment of resources, the level of production is Maximum and there is a rise in **GNP** (Gross National Product). Due to a high level ofeconomic activity, it causes a rise in prices and profits. There is an upswing in the economic activity and economy reaches its **Peak**. This is also called as a **Boom Period**.

2. Recession Phase

The turning point from prosperity to depression is termed as Recession Phase. During a recession period, the economic activities slow down. When demand starts falling, the overproduction and future investment plans are also given up. There is a steady decline in the output, income, employment, prices and profits. The businessmen lose confidence and become pessimistic (Negative). It reduces investment. The banks and the people try to get greater liquidity, so credit also contracts. Expansion of business stops, stock market falls. Orders are cancelled and people start losing their jobs. The increase in unemployment causes a sharp decline in income and aggregate demand. Generally, recession lasts for a short period.

3. Depression Phase

When there is a continuous decrease of output, income, employment, prices and profits, there is a fall in the standard of living and depression sets in.

The **features of depression** are:-

1. Fall in volume of output and trade.
2. Fall in income and rise in unemployment.
3. Decline in consumption and demand.
4. Fall in interest rate.
5. Deflation.
6. Contraction of bank credit.

7. Overall business pessimism.
8. Fall in MEC (Marginal efficiency of capital) and investment.
In depression, there is under-utilization of resources and fall in GNP (Gross National Product). The aggregate economic activity is at the lowest, causing a decline in prices and profits until the economy reaches its **Trough** (low point).

4. Recovery Phase
The turning point from depression to expansion is termed as Recovery or**Revival** Phase. During the period of revival or recovery, there are expansions and rise in economic activities. When demand starts rising, production increases and this causes an increase in investment. There is a steady rise in output, income, employment, prices and profits. The businessmen gain confidence and become optimistic (Positive). This increases investments. The stimulation of investment brings about the revival or recovery of the economy. The banks expand credit, business expansion takes place and stock markets are activated. There is an increase in employment, production, income and aggregate demand, prices and profits start rising, and business expands. Revival slowly emerges into prosperity, and the business cycle is repeated. Thus we see that, during the expansionary or prosperity phase, there is inflation and during the contraction or depression phase, there is a deflation.