MAR GREGORIOS COLLEGE OF ARTS & SCIENCE

Block No.8, College Road, Mogappair West, Chennai – 37

Affiliated to the University of Madras
Approved by the Government of Tamil Nadu
An ISO 9001:2015 Certified Institution

PG DEPARTMENT OF COMMERCE

SUBJECT NAME: MANAGERIAL ECONOMICS

SUBJECT CODE: KDA1G

SEMESTER: I

PREPARED BY: PROF. R.CHANDRASEKARAN

Managerial Economics

Objective: To offer expertise and knowledge on the application of economic theories and concepts to business decisions

Unit I The Scope and Methods of Managerial Economics -Risk -uncertainty and probability analysis - Approach to managerial decision making and the theory of firm

Unit II Demand analysis, basic concepts and tools of analysis for demand forecasting, use of business indicators; demand forecasting for consumer goods, Consumer durable and capital goods

Unit III Concepts in resource allocation, cost analysis; breakeven analysis, short run and long run cost functions; production function: cost -price -output relations -Capital investment analysis - Economics of size and capacity utilization input -output -analysis

Unit IV Market structure, Pricing and output; general equilibrium. Product policy, rates, promotion and market strategy -Advertising rates model- Advertisement budgeting

Unit V Pricing objectives -pricing methods and approaches -Product line pricing -Differential pricing - Monopoly policy restrictive agreements -Price discrimination -Measurement of economic concentration -Policy against monopoly and restrictive trade practices

Book References

1 Peterson, Managerial Economics 4th Ed. Pearson Education, New Delhi,

2 Spencer, M.H. : Managerial Economics, Text Problems and Short Cases

3 Mote and Paul: Managerial Economics TMH, New Delhi

4 Sampat Mokherjee, Business and Managerial Economics Calcutta New Central Book Agency

5 Dwivedi D N Managerial Economics, New Delhi Vikas

Web references

www.emeraldinsight.com
www.taylorandfrancis.com
www.oxfordjournals.org

Managerial Economics

Unit I

The Scope and Methods of Managerial Economics –

Managerial economics is the **study of how scarce resources are directed most efficiently to achieve managerial goals.** It is a valuable tool for analyzing business situations to take better decisions.

Prof. Evan J Douglas defines Managerial Economics as "Managerial Economics is **concerned with the application of economic principles** and **methodologies** to the decision making process within the firm or organization under the conditions of uncertainty

NATURE OF MANAGERIAL ECONOMICS.

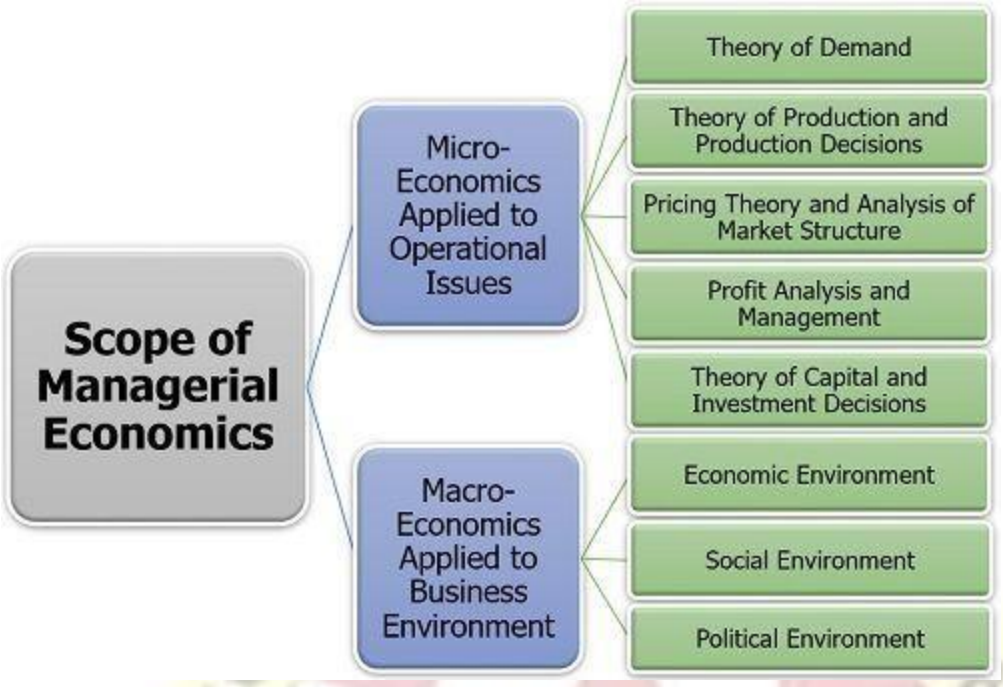
1. Managerial economics is **concerned with optimal solutions** to decision making problems
2. Managerial economics **is a practical subject**
3. Managerial economics describes **observed economic phenomenon**
4. Managerial economics is based on **strong economic concepts**.
5. It helps to find **optimal solution** to the business problems

MANAGERIAL ECONOMICS FROM ECONOMICS.

	Managerial Economics	Economics
1.	It involves **application of economics** principles of the firm	It involves **Basic Economic Principles** themselves
2.	It is **Micro** in Character	It is both **Micro & Macro**
3.	It deals with **firm Decision Making**	It deals with **both firm and Individual** decision making
4.	Only there is **use of Profit Theory**	It consists of all **economics theories including distributive theories**

Scope of Managerial Economics

Managerial economics is widely applied in organizations to deal with different business issues. Both the micro and macroeconomics equally impact the business and its functioning.



MICRO-ECONOMICS APPLIED TO OPERATIONAL ISSUES

To resolve the organisation's internal issues arising in business operations, the various theories or principles of microeconomics applied are as follows:

- **Theory of Demand**: The demand theory emphasises on the consumer's behaviour towards a product or service. It takes into consideration the needs, wants, preferences and requirement of the consumers to enhance the production process.
- **Theory of Production and Production Decisions**: This theory is majorly concerned with the volume of production, process, capital and labour required, cost involved, etc. It aims at maximising the output to meet the customer's demand.
- **Pricing Theory and Analysis of** Market Structure: It focuses on the price determination of a product keeping in mind the competitors, market conditions, cost of production, maximising sales volume, etc.
- **Profit Analysis and Management**: The organisations work for a profit. Therefore they always aim at profit maximisation. It depends upon the market demand, cost of input, competition level, etc.
- **Theory of Capital and Investment Decisions**: Capital is the most critical factor of business. This theory prevails the proper allocation of the organisation's capital and making investments in profitable projects or venture to improve organisational efficiency.
-

MACRO-ECONOMICS APPLIED TO BUSINESS ENVIRONMENT

Any organisation is much affected by the environment it operates in. The business environment can be classified as follows:

- **Economic Environment**: The economic conditions of a country, GDP, economic policies, etc. indirectly impacts the business and its operations.
- **Social Environment**: The society in which the organisation functions also affects it like employment conditions, trade unions, consumer cooperatives, etc.
- **Political Environment**: The political structure of a country, whether authoritarian or democratic; political stability; and attitude towards the private sector, influence organizational growth and development.

Principles of Managerial Economics

Let us go through the following principles to understand how decision-making takes place in real life:

- **Humans face tradeoffs:** To make decisions, people have to make choices on whether to choose from the different options available.
- **Price of Opportunity:** Each decision involves a cost of opportunity which is the cost of those options that we let go of while choosing the most appropriate one.
- **Feel fair about the margin:** People typically think about the margin or income they receive before investing in a specific project or individual with their money or resources.
- **People respond to stimulus:** Decisions to be made highly depend on incentives related to a product, service or activity. Negative incentives discourage people, whilst positive incentives encourage people.

UNCERTAINTY, RISK AND PROBABILITY ANALYSIS IN ECONOMIC ACTIVITY!

1. Uncertainty

2. Risk

3. Non-Insurable Risk

4. Probability Analysis

5. Basic Concepts

1. Uncertainty

Uncertainty is a situation regarding a variable in which neither its probability distribution nor its mode of occurrence is known. For instance, an oligopolist may be uncertain with respect to the marketing strategies of his competitors. Uncertainty as defined in this way is extremely common in economic activity

The function of the entrepreneur is to meet those risks which are non-insurable and which are called uncertainties. Uncertainty arises when actual conditions differ from anticipated conditions.

Apart from our efforts some uncertainty will always be present. The following reasons are important:

(i) The first is about natural laws according to which the sun rises, tide comes and seasons change.

(ii) The second is about forces working around us.

Sources of Uncertainty:

There are a few sources of uncertainty:

(1) Uncertain Pattern:

We are definite about certain events but uncertain about their pattern, for instance, there is sufficient quantum of rainfall in a particular year but its distribution over different months or days is uncertain. So there is the chance for crop failure by change in pattern of distribution of rains.

(2) Existing Facts and Future Plan:

Our belief of certainty and uncertainty about events is influenced by facts already available and future plan.

As for example in constructing a dam, we face uncertainty about incoming water. But we may plan our present need with provision for future increase. The facts about past flow in volume and size reduce uncertainty to a great extent.

(3) Bias of Self-Interest:

Our experiences of past events are modified by our personal feeling and prejudice. It is known as bias of self-interest.

(4) Belief about an Event Either Help or Harm:

1 here is the maximum feeling of uncertainty when we believe that an event may either harm or help us, i.e., each one being equally likely.

FACTORS DETERMINING UNCERTAINTY:

Uncertainty bearing has been considered as a factor of production. It has a supply price depending upon

(i) The character of the entrepreneur

(ii) On the amount of resources possessed by him, and

(iii) On the proportion of these resources exposed to uncertainty.

State Preference Theory:

A method of examining the making of decision when there is uncertainty in the outcome. It is used primarily to analyse decisions regarding the choice of investments. The model assumes that there are several distinct possibilities as to the future economic situation.

Mean Variance Analysis:

The making of decisions when there is uncertainty in the outcome. It is particularly used in examining how an investor will organise his portfolio. In this model, it is assumed that the determinants of an individual's choice are the expected return and the variability of the return.

The individual's choice as to how he will arrange his investments can be plotted on a graph with the expected return on the vertical axis and the variance on the horizontal. There is usually once certain alternative: for instance, holding money at a fixed interest rate. This is represented by a point on the vertical axis, which is zero variance.

2. RISK

The concept 'risk' is a situation in which the probability distribution of a variable is known but its actual value is not. Risk is an actuarial concept. Risk may be defined as an uncertainty of financial loss on the occurrence of an unfortunate event. A risk is an uncertainty of loss. Risk is an objectified uncertainty or a measurable misfortune. Every business involves some risk and most people do not like being involved in any risky enterprise. The greater the risk, the higher must be the expected gain in order to induce them to start the business.

Types of Risk:

Risk may be connected with either persons or properties and it can be classified as follows:

1. Pure Risk or Static Risk:

Pure risk prevails where there is a probability of loss but no chance of gain. For example, if the firm is gutted out by fire, the owner sustains financial loss. If there is no such fire accident, the owner does not gain either. Pure risks are insurable.

2. Speculative Risk or Dynamic Risk:

A speculative risk exists where there is even chance for both gain and loss. This type of risk arises from fluctuations of prices. Owners of shares and bonds will gain if the price goes up and losses it the price falls.

3. Insurable Risks:

Transferable risks are also known as insurable risks. Such risks can be predicted, estimated and measured in terms of money and so are insurable.

3. Non-Insurable Risk

Those risks which cannot be calculated and insured are called non-insurable risks. The non-insurable risks are further classified into:

(a) Competitive Risk:

The existing firms may be faced with new competitions from the newly entered firms. The new firms can enter into the industry any time. As a result of this competition, the profit of the existing firms will fall.

(b) Technical Risk:

New techniques of production may be introduced. The existing firms may not be able to follow these new techniques. As a result, they may incur loss.

(c) Risk of Government Intervention:

In the larger interest of the country, the government may nationalize a number of industries. The firms in every industry may be affected. The government may control the price of the products.

(d) Business Cycle Risk:

Depression may affect the industry as a whole. A depression in one industry may affect the other industries also.

MEASUREMENT OF RISK:

The method of measuring a risk is to collect a large number of similar cases subject to risk and then divide the number of time the risk has happened by the number of such cases. For example, if there are 100 match units in a particular area and 10 units have been gutted in that year then the risk rate is 10/100 or 10 per cent. Such a measurement is called mathematical value of risk.

4. PROBABILITY ANALYSIS

In ordinary language the term probability refers to the chance of happening or not happening of an event. The use of the word 'chance' in any statement indicates that there is an element of uncertainty. Most of the managerial decisions are decisions related to uncertainty.

Tomorrow is not well defined. Managers are required to make some appropriate assumptions for the 'would be tomorrow' and base their decisions on such assumptions. The notion of uncertainty or chance is so common in everybody s life that it becomes difficult to define it.

We talk about or we may say, for instance, that it may rain today, or the local team will win the match or the group may fare well in statistics paper. In each of these statements there is as much uncertainty as there is certainty.

DEFINITION OF PROBABILITY:

Probability may be defined as the ratio of the frequency with which a certain event occurs to the total frequency of a sufficiently long sequence of observations taken. Chrystal gives the definition of probability as follows, "If on taking a very large number N out of a series of cases in which an event A is in question, A happens on pN occasions, the probability of the event A is said to be p. Laplace, the French mathematician, has defined it simply as "Probability is the ratio of number of favourable cases to the total number of equally likely cases. If probability is denoted by P, then by this definition we have:

P = Number of favourable cases /Total number of equally likely cases

RELEVANCE OF PROBABILITY THEORY:

Probability analysis is used to reduce the level of uncertainty in decision making. Let us discuss about some of the business situations characterized by uncertainty.

(i) The Individual Investor:

An investor who is engaged in buying and selling of equities is trying his maximum to optimize his output. I he price behaviour of securities is subject to uncertainties. The uncertainties in the security price are due to several other factors.

Under these circumstances, the managers take business decisions on the basis of their forecast of the probable future. The ability to take better decisions need not be optimal. It is sometimes referred to as business acumen i.e. sharpness and accuracy of judgment.

(ii) Inventory Problem:

The inventory is a complete list of the stocks of raw materials, components, work-in-progress and finished goods held by a business. The quantity of inventory depends upon various factors

like demand, lead time, storage cost, ordering cost and shortage costs and the like. Some of these factors are known with certainty. Among other factors, the demand and the lead time fluctuate and are considered to be uncertain factors in inventory problems.

(iii) Investment Problem:

This relates to the spending of money for purposes other than consumption in order to earn income from it or to realise a capital gain at a later date. Large firms employ investment analysts with a view to forecasting its future profits.

This forecast will be related to the company's present share price and the resultant ratio compared to the same ratio for other companies in the sector and for the market as a whole. The decision has to be taken on the basis of choice, the outcome of which is contingent upon the level of demand.

(iv) Introducing a New Product:

When a new product is developed by a firm the immediate problem is to decide whether or not to introduce the product in addition to the existing product mix. The decision maker may not be sure about the acceptability of the product. The introduction of the new product is generally finalised on the basis of test marketing. If he gets contradictory results, he should drop the idea of introducing a new product is purely based on uncertainty.

(v) Stocking Decisions:

These refer to the accumulation of strategic raw materials or other commodities that are essential to run the business without any obstruction. The firm has to face the problem of stock policies. In this context special insurance policies covering risk stock, where substantial fluctuations in the value of the risk can occur throughout in the period of policy.

Therefore, insurance policies are unsuitable. To cover such risks, various policies are used. Here the businessman is not sure about the demand pattern, yet he must decide in advance how much units to stock.

5. Basic Concepts

The following terms are important for the proper understanding of probability.

1. An Event:

It is said to be a possible outcome when an experiment is conducted. For instance, the head is an event and the tail is another event in the tossing of a coin.

2. Equi-Probable Event:

When two or more events are equally probable, i.e., when one event has as much chance to occur as the other, they are equal probable events. They may be also called as equally likely events. For example, when we toss a coin, we may get either the head or the tail. Both events are equally likely or have 50 per cent chance each.

3. Independent Events:

Two events are said to be independent if the occurrence of one is not or is affected by the occurrence of the other. When two coins are tossed, the result of the first toss does not affect or get affected by the second toss. Such events are called independent events.

4. Dependent Events:

Two events A and B are said to be dependent if the occurrence of A affects or is affected by the occurrence of the other. For example, in a pack of each, there are 52 cards. Suppose one card is withdrawn, the probability that it is a king is 4/52 or 1/13. Suppose one card is not replaced, the probability of another king is 3/51 or 1/17.

5. Mutually Exclusive Events:

By mutually exclusive events we mean that the happening of one of them prevents or precludes the happening of the other. Thus, if we toss a dice and it shows 4, then the event of getting 4 precludes the event of throwing 1, 2, 3,4,5,6. Therefore, the event of throwing 1,2,3,4,5,6 on tossing a dice are mutually exclusive. In other words, all simple events are mutually exclusive.

6. Collectively Exhaustive Events:

Events are also collectively exhaustive as they together constitute the set of possible events (called a sample space). Thus a set of events A_1, A_2 ..... A_n is mutually exclusive of A ,n A_1 A_1 = (for any i' J) and collecting exhaustive E (the entire set) = A_1 A_2, A_3 ..... A_n.

7. Simple Event:

In case of simple event we consider the probability of occurrence or non-occurrence of simple event. For example, in tossing a dice the chance of getting 3 is a simple event.

8. Compound Event:

When two or more events occur in conjunction with each other their simultaneous occurrence is called a compound event. In simple language, the chance of getting an odd number is a compound event.

9. Random Experiment:

It is an experiment which if conducted repeatedly under homogeneous conditions does not give the same result. The result may be any one of the various possible outcomes. Here the result is not unique. The performance of a random experiment is called a trial and outcome of an event.

Permutations and Combinations:

Permutation and combination are statistical devices employed in counting of things. Counting becomes more difficult if the number of ways of arranging a set of items is to be determined. In short, the word permutation refers to arrangements and the word combination refers to groups. For instance, a factory owner who has received three new machines A, B and C can arrange these in 6 ways as follows:

Kinds of Probabilities:

There are two distinct kinds of probability. They are:

1. Aprion Probability:

We may consider the tossing of a coin. It may fall head upwards or tail upwards. Therefore, there are only 2 possible ways (head or tail) one of which is sure to happen. We can conclude that the probability of a head is 1/2 and that of tail is also 1/2. We have arrived at this conclusion purely by reasoning or theoretical consideration. The reasoning employed here is purely deductive and we call the probability as 'aprion', meaning that it is determined before the event has occurred. It is otherwise known as mathematical probability.

2. Aposterion Probability:

Under the aposterion probability, the probability is determined after the result of the experiment is known. For example, out of 500 children admitted with symptoms of viral fever in a government hospital, how many survive and how many die? The answer for this question or the probability of success can be determined only after treating the 500 cases and estimating the success of the trial. The reasoning employed here is inductive and the probability is known as 'aposterion', i.e., determined only after the event has occurred or after the outcome of the trial is known.

MANAGERIAL DECISION MAKING: QUANTITATIVE, CENTERED AND MANAGERIAL APPROACH

Approaches towards Managerial Decision Making are as follows:

The management literature is quite rich with findings of research studies regarding the process of decision making followed by managers.

1. Quantitative Approach:

The quantitative approach to decision making is an extension of the classical approach. It involves a sequential process of:

i. Observing a problem and defining its scope,

ii. Formulating a hypothesis,

iii. Testing the hypothesis with the help of experiments,

iv. Verifying the solution by analogical reasoning,

v. Conducting sensitivity analysis,

vi. Estimating solution of the problem,

vii. Implementing the solution, and

viii. Establishing control systems for feedback and review.

Although, these steps are logically placed in a sequence, there is always an interplay among these steps. Each step may be subjected to change in the light of revelation through experience. The steps are listed in Fig 4.3, to provide the conceptual framework of the approach.

It is suitable in decision situations where most of the important factors are controllable to a reasonable extent and the manager has complete control over the decision making. Such decision situations are more common in case of operational decisions.

The quantitative approach helps in defining a problem clearly and separating the impact of problem from its causes.

2. Decision Centered Approach:

The quantitative approach assumes the availability of adequate information and time for analysis of information using some model. However, the decision making environment in business organisations is far from ideal in this regard.

It has been observed that a manager has to take decisions with inadequate information regarding the decision variables; the time frame available for analysis is too small to permit detailed modeling without entailing opportunity losses due to delayed decisions.

The decision centered approach recognises that the absolute rationality in decision making may not be achievable in the light of the realities of business decision making scenario. This approach is based on the concept of bounded rationality.

The decision making process under this approach involves the following steps:

i. Environment intelligence for searching problems and opportunities; identifying the available informational inputs regarding the decision variables.

ii. Identifying or designing alternative courses of action, avoiding new, uncertain alternatives; relying instead on well tried alternatives.

iii. Making a choice among the alternatives designed in the preceding stage. As managers reflect their goals in terms of different programmes, they evaluate alternatives on the basis of the goals set forth in the concerned programme.

iv. The interdependence of the goals of different programmes is generally avoided as some of the goals in a given programme may in conflict with goals of other programmes. There is a tendency to select the first alternative that promotes the goals of the programme.

v. Implementing the selected solution.

Information for intelligence:

The first stage in the process of decision making under the decision centred approach is gathering information regarding the internal and external environments. The gathering of information is done on regular basis with the aim of identifying (a) opportunities and (b) threats.

The information may be gathered using adhoc queries from the information systems. An alternative to this could be where the information systems themselves are proactive and report the opportunities and threats automatically Modern business information systems, generally, offer exception reporting facilities with varying degrees of analysis of information.

Many software companies are now bundling 'intelligent agents' into their software products so that the analysis of information is done automatically by the software and exceptional circumstances are reported to the user.

Information for designing:

Designing the model for decision making can be greatly helped by modern information systems. Information for programmable decisions, which can be taken using predetermined algorithm, can be generated easily and automatically. For example, the inventory problems, sequencing of jobs, production planning and scheduling can easily be automated by information systems.

Group Decision Making:

One of the important dimensions of managerial decision making is that many decisions are taken not by a manager alone, but by a group of people in the business enterprise. As there are many decisions that have implications on different organisational units having sometimes conflicting objectives, the decision has to be a collective one

3. Managerial Roles Approach:

Another model of managerial decision making that is now gaining acceptability was originally suggested by Henry Mintzberg.According to his model, a manager plays the following three basic roles:

Interpersonal role:

A manager plays the role of a leader of his subordinates, maintains liaison with the external environment and plays the role of figurehead as and when occasions arise.

Information role:

His information role includes the responsibility of managing information in the organisation. He is responsible for making information available within the organisation and should be able to communicate the state of affairs to the external environment.

Decision role:

A manager is supposed to take decision for bringing about changes in the light of changes in the environment. He should make decisions in case any problem arises, i.e. he should take up the role of a disturbance handler.

He is also supposed to take up the role of resource allocator because he is accountable for the proper use of resources. Associated with this responsibility, is also the role of a negotiator who resolves disputes, both internal and external to the organisation.

The executive information systems can help a manager in monitoring information on the performance of different organisational units. It can also help in dissemination of information among his peers and subordinates regarding the external environment.

He is also able to communicate more effectively with the external entities regarding state of affairs in the enterprise. Today, a manager is in a better position to explain any decline in the performance to the shareholders and investors than ever before, thanks to the availability of executive information systems.

THEORY OF FIRM

The model of business is called the theory of the firm.
In its simplest version, **the firm is thought** to have **profit maximization** as its primary goal.

The firm's owner manager is assumed to be working to maximize the firm's short-run profits. Today, the emphasis on profits has been broadened to encompass uncertainty and the time value of money. In this more complete model, the primary goal of the firm is longterm expected value maximization.

POPULAR TIME SERIES ANALYSIS TECHNIQUES USED FOR DEMAND FORECASTING.

Time series analysis:
Time series analysis helps to identify:
(1) a long-run movement of the variable;
(2) Seasonal fluctuations which are oscillatory but confined to one year;
(3) Cyclical movements which are oscillatory and periodic.

A time series is dis-aggregated into four components or elements

- ✓ Trend (T)
- ✓ Seasonal component (S)
- ✓ Cycle (C)
- ✓ an irregular or random component.

A common method of decomposition is to calculate the trend and eliminate it from the original series by dividing throughout as TSCR/T; in the same way other elements can be separated out. In the additive form an element is removed by subtracting it from the series.

Much depends on the purpose. For example, if the growth rate of a variable, say agricultural production, is to be estimated, calculating the trend equation directly may not give the correct results, as agriculture is subject to both seasonal and cyclical fluctuations. Thus, both the fluctuations are to be removed first in order to attain better accuracy.

The decomposition of time series analysis has certain implicit assumptions:

1) the order of removal should be trend, seasonal, and cyclical. If the order is changed, changed values will result.
2) effects are independent of each other; and
3) the trend is linear and the cycle is regular.

Criticism of the Method: These **assumptions have been questioned**. Separation of trend and cycle may be dubious as both may be the result of the same set of factors. **Irregular variations** may **outweigh the others** and the phenomenon of the business cycle may not be very relevant in a planned economy. The decomposition of the time series is an artificial attempt imposed by the analyst.

UNIT II

DEMAND ANALYSIS

DEMAND ANALYSIS INTRODUCTION: Demand in common parlance means the desire for an object 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 has three essentials – price, quantity demanded and time.

DEMAND DEFINITION: "Demand means the various quantities of goods that would be purchased at a particular price and not merely the desire of a thing."

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

EXCEPTIONS TO THE LAW OF DEMAND:

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.

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

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.

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

FACTORS EFFECTING THE DEMAND:

Price of the Commodity:

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.

Income of the Consumer:

The second most important factor influencing demand is consumer income. IThe 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.

▪ 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. 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.

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.

Population:

Increase in population increases demand for necessaries of life. A change in composition of population has an effect on the nature of demand for different commodities.

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.

Expectations Price in 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.

Cimate 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.

ELASTICITY OF DEMAND

Elasticity of demand explains the relationship between a change in price and consequent change in amount demanded.

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 the quantity demanded, then the demand in "inelastic".

Types of 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.

There are five cases of price elasticity of demand

1. Perfectly elastic demand
2. Perfectly inelastic
3. Relatively elastic demand
4. Relatively inelastic demand
5. Unitary demand

DEMAND FORECASTING: CONCEPT, SIGNIFICANCE, OBJECTIVES AND FACTORS

An organization faces several internal and external risks, such as high competition, failure of technology, labor unrest, inflation, recession, and change in government laws.

Therefore, most of the business decisions of an organization are made under the conditions of risk and uncertainty.

An organization can lessen the adverse effects of risks by determining the demand or sales prospects for its products and services in future. Demand forecasting is a systematic process that involves anticipating the demand for the product and services of an organization in future under a set of uncontrollable and competitive forces.

Significance of Demand Forecasting:

Demand plays a crucial role in the management of every business. It helps an organization to reduce risks involved in business activities and make important business decisions. Apart from this, demand forecasting provides an insight into the organization's capital investment and expansion decisions.

The significance of demand forecasting is shown in the following points:

i. Fulfilling objectives:

Implies that every business unit starts with certain pre-decided objectives. Demand forecasting helps in fulfilling these objectives. An organization estimates the current demand for its products and services in the market and move forward to achieve the set goals.

ii. Preparing the budget:

Plays a crucial role in making budget by estimating costs and expected revenues. For instance, an organization has forecasted that the demand for its product, which is priced at Rs. 10, would be 10, 00, 00 units. In such a case, the total expected revenue would be 10* 100000 = Rs. 10, 00, 000. In this way, demand forecasting enables organizations to prepare their budget.

iii. Stabilizing employment and production:

Helps an organization to control its production and recruitment activities. Producing according to the forecasted demand of products helps in avoiding the wastage of the resources of an organization. This further helps an organization to hire human resource according to requirement. For example, if an organization expects a rise in the demand for its products, it may opt for extra labor to fulfill the increased demand.

iv. Expanding organizations:

Implies that demand forecasting helps in deciding about the expansion of the business of the organization. If the expected demand for products is higher, then the organization may plan to expand further. On the other hand, if the demand for products is expected to fall, the organization may cut down the investment in the business.

v. Taking Management Decisions:

Helps in making critical decisions, such as deciding the plant capacity, determining the requirement of raw material, and ensuring the availability of labor and capital.

vi. Evaluating Performance:

Helps in making corrections. For example, if the demand for an organization's products is less, it may take corrective actions and improve the level of demand by enhancing the quality of its products or spending more on advertisements.

vii. Helping Government:

Enables the government to coordinate import and export activities and plan international trade.

Objectives of Demand Forecasting

Demand forecasting constitutes an important part in making crucial business decisions.

The objectives of demand forecasting are divided into short and long-term objectives, which are shown in Figure-1:

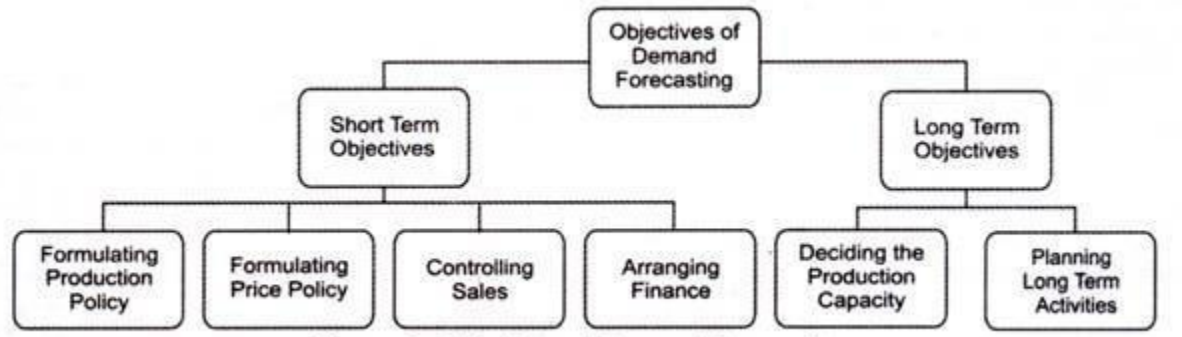


Figure-1: Objectives of Demand Forecasting

The objectives of demand forecasting (as shown in Figure-1) are discussed as follows: i. Short-term Objectives:

Include the following:

a. Formulating production policy:

Helps in covering the gap between the demand and supply of the product. The demand forecasting helps in estimating the requirement of raw material in future, so that the regular supply of raw material can be maintained. It further helps in maximum utilization of resources as operations are planned according to forecasts. Similarly, human resource requirements are easily met with the help of demand forecasting.

b. ormulating price policy:

Refers to one of the most important objectives of demand forecasting. An organization sets prices of its products according to their demand. For example, if an economy enters into depression or recession phase, the demand for products falls. In such a case, the organization sets low prices of its products.

c. Controlling sales:

Helps in setting sales targets, which act as a basis for evaluating sales performance. An organization make demand forecasts for different regions and fix sales targets for each region accordingly.

d. Arranging finance:

Implies that the financial requirements of the enterprise are estimated with the help of demand forecasting. This helps in ensuring proper liquidity within the organization.

ii. Long-term Objectives:

Include the following:

a. Deciding the production capacity:

Implies that with the help of demand forecasting, an organization can determine the size of the plant required for production. The size of the plant should conform to the sales requirement of the organization.

b. Planning long-term activities:

Implies that demand forecasting helps in planning for long term. For example, if the forecasted demand for the organization's products is high, then it may plan to invest in various expansion and development projects in the long term.

Factors Influencing Demand Forecasting:

Demand forecasting is a proactive process that helps in determining what products are needed where, when, and in what quantities. There are a number of factors that affect demand forecasting.

ome of the factors that influence demand forecasting are shown in Figure-2:

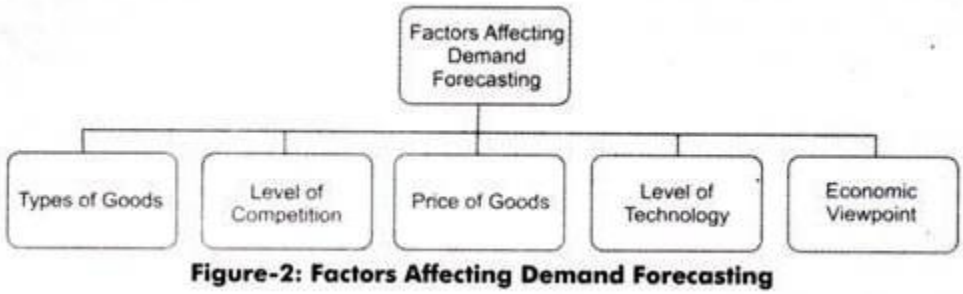


Figure-2: Factors Affecting Demand Forecasting

he various factors that influence demand forecasting ("as shown in Figure-2) are explained as follows:

i. Types of Goods:

Affect the demand forecasting process to a larger extent. Goods can be producer's goods, consumer goods, or services. Apart from this, goods can be established and new goods. Established goods are those goods which already exist in the market, whereas new goods are those which are yet to be introduced in the market.

Information regarding the demand, substitutes and level of competition of goods is known only in case of established goods. On the other hand, it is difficult to forecast demand for the new goods. Therefore, forecasting is different for different types of goods.

ii. Competition Level:

Influence the process of demand forecasting. In a highly competitive market, demand for products also depend on the number of competitors existing in the market. Moreover, in a highly competitive market, there is always a risk of new entrants. In such a case, demand forecasting becomes difficult and challenging.

iii. Price of Goods:

Acts as a major factor that influences the demand forecasting process. The demand forecasts of organizations are highly affected by change in their pricing policies. In such a scenario, it is difficult to estimate the exact demand of products.

iv. Level of Technology:

Constitutes an important factor in obtaining reliable demand forecasts. If there is a rapid change in technology, the existing technology or products may become obsolete. For example, there is a high decline in the demand of floppy disks with the introduction of compact disks (CDs) and pen

drives for saving data in computer. In such a case, it is difficult to forecast demand for existing products in future.

v. Economic Viewpoint:

Play a crucial role in obtaining demand forecasts. For example, if there is a positive development in an economy, such as globalization and high level of investment, the demand forecasts of organizations would also be positive.

Apart from aforementioned factors, following are some of the other important factors that influence demand forecasting:

a. Time Period of Forecasts:

Act as a crucial factor that affect demand forecasting. The accuracy of demand forecasting depends on its time period.

Forecasts can be of three types, which are explained as follows:

1. Short Period Forecasts:

Refer to the forecasts that are generally for one year and based upon the judgment of the experienced staff. Short period forecasts are important for deciding the production policy, price policy, credit policy, and distribution policy of the organization.

2. Long Period Forecasts:

Refer to the forecasts that are for a period of 5-10 years and based on scientific analysis and statistical methods. The forecasts help in deciding about the introduction of a new product, expansion of the business, or requirement of extra funds.

3. Very Long Period Forecasts:

Refer to the forecasts that are for a period of more than 10 years. These forecasts are carried to determine the growth of population, development of the economy, political situation in a country, and changes in international trade in future.

Among the aforementioned forecasts, short period forecast deals with deviation in long period forecast. Therefore, short period forecasts are more accurate than long period forecasts.

4. Level of Forecasts:

Influences demand forecasting to a larger extent. A demand forecast can be carried at three levels, namely, macro level, industry level, and firm level. At macro level, forecasts are undertaken for general economic conditions, such as industrial production and allocation of

national income. At the industry level, forecasts are prepared by trade associations and based on the statistical data.

Moreover, at the industry level, forecasts deal with products whose sales are dependent on the specific policy of a particular industry. On the other hand, at the firm level, forecasts are done to estimate the demand of those products whose sales depends on the specific policy of a particular firm. A firm considers various factors, such as changes in income, consumer's tastes and preferences, technology, and competitive strategies, while forecasting demand for its products.

5. Nature of Forecasts:

Constitutes an important factor that affects demand forecasting. A forecast can be specific or general. A general forecast provides a global picture of business environment, while a specific forecast provides an insight into the business environment in which an organization operates. Generally, organizations opt for both the forecasts together because over-generalization restricts accurate estimation of demand and too specific information provides an inadequate basis for planning and execution.

Steps of Demand Forecasting:

The Demand forecasting process of an organization can be effective only when it is conducted systematically and scientifically.

It involves a number of steps, which are shown in Figure-3:

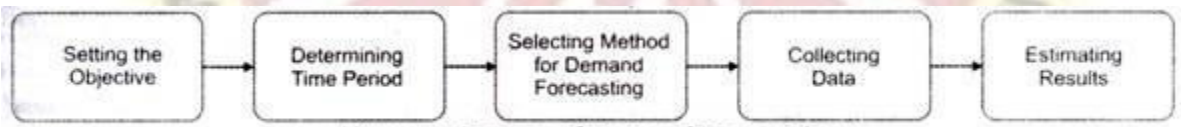


Figure-3: Process of Demand Forecasting

The steps involved in demand forecasting (as shown in Figure-3) are explained as follows:

1. Setting the Objective:

Refers to first and foremost step of the demand forecasting process. An organization needs to clearly state the purpose of demand forecasting before initiating it.

Setting objective of demand forecasting involves the following:

a. Deciding the time period of forecasting whether an organization should opt for short-term forecasting or long-term forecasting

b. Deciding whether to forecast the overall demand for a product in the market or only- for the organizations own products

c. Deciding whether to forecast the demand for the whole market or for the segment of the market

d. Deciding whether to forecast the market share of the organization

2. Determining Time Period:

Involves deciding the time perspective for demand forecasting. Demand can be forecasted for a long period or short period. In the short run, determinants of demand may not change significantly or may remain constant, whereas in the long run, there is a significant change in the determinants of demand. Therefore, an organization determines the time period on the basis of its set objectives.

3. Selecting a Method for Demand Forecasting:

Constitutes one of the most important steps of the demand forecasting process Demand can be forecasted by using various methods. The method of demand forecasting differs from organization to organization depending on the purpose of forecasting, time frame, and data requirement and its availability. Selecting the suitable method is necessary for saving time and cost and ensuring the reliability of the data.

4. Collecting Data:

Requires gathering primary or secondary data. Primary' data refers to the data that is collected by researchers through observation, interviews, and questionnaires for a particular research. On the other hand, secondary data refers to the data that is collected in the past; but can be utilized in the present scenario/research work.

5. Estimating Results:

Involves making an estimate of the forecasted demand for predetermined years. The results should be easily interpreted and presented in a usable form. The results should be easy to understand by the readers or management of the organization.

CONSUMER DURABLE AND CAPITAL GOODS

Consumer good, in economics, any tangible commodity produced and subsequently purchased to satisfy the current wants and perceived needs of the buyer. Consumer goods are divided into three categories: durable goods, nondurable goods, and services.

URABLE GOODS

Durable goods are expensive items that last three years or more.[1] Businesses and consumers only buy these big-ticket items when they feel confident about the economy. When they are not sure, they put off buying durable goods until things get better.

Consumer Durable Goods

Consumer durable goods are the items bought by households and individuals that last three years or more.[2] They include automobiles, appliances, furniture, tableware, tools and equipment, sports equipment, luggage, telephones and electronics, musical instruments, books, and jewelry. The category also includes some intangible products such as software.[3]

Business Durable Goods

Examples of durable goods used by businesses are machinery and equipment.[4] Some are similar to consumer durable goods, such as computers, telephones, and automobiles. It includes furniture used by the business including any that landlords rent to tenants.

Durable goods used by businesses also include industrial equipment such as engines, metalworking machinery, and electrical transmission apparatus. It includes trucks, buses, boats, and aircraft. In fact, commercial aircraft is a large component of durable goods.

Nondurable Goods

Nondurable goods last less than three years on average. The BEA includes in this category food, pharmaceuticals, tobacco, clothing, household supplies, personal care products, magazines, and gasoline.

CAPITAL GOODS

Capital goods are man-made, durable items businesses use to produce goods and services. They include tools, buildings, vehicles, machinery, and equipment. Capital goods are also called durable goods, real capital, and economic capital. Some experts just refer to them as "capital." This last term is confusing because it can also mean financial capital.

CAPITAL GOODS VS. CONSUMER GOODS

Unlike capital goods, consumer goods are not used to create other products (although they also may be considered durable goods). Like capital goods, durable consumer goods are heavy-duty and long-lasting. They’re the appliances bought by households, such as cars, refrigerators, and dryers. Shipments of consumer goods are also included in U.S. GDP. As a result, consumer spending drives almost 70% of GDP.[2]

UNIT III

CONCEPTS IN RESOURCE ALLOCATION,

Resource Allocation

Allocation of resources is both a one-time and a continuous process. The implementation of a project would require the allocation of resources. An on-going business concern would also require a continual infusion of resources.

The allocation of resources may take place at the corporate level i.e. by the Board of Directors and /or the CEO. This is known as the top-down approach. In the bottom-up approach resources are allocated after seeking recommendations from operating personnel/functional departments. A third approach involves allocating resources through the budgeting process in which allocations are drafted, modified and finalized jointly.

Resources are a must to implement a strategy. A given strategy, however it is effective or sound, has no meaning unless the organisation has the required resources. It depends not only of having those resources but the correct allocation and utilisation of these resources.

Many firms have failed because of inappropriate and non-judicious allocation and ineffective use of resources. What is needed is a strict discipline in the areas of resource procurement, allocation and actual use. The resources include funds, facilities and equipment's, materials, supplies and services and manpower.

Allocation of resources is both a one-time and a continuous process. The implementation of a project would require the allocation of resources. An on-going business concern would also require a continual infusion of resources. Strategy implementation deals with both types of resource allocation.

Resource allocation-Definition

Resource allocation is defined as the allocation or division of resources that are used in the implementation of strategy in an organization. According to Churchman, "In organizations, the decision-making Junction is the responsibility of management

Generally, three situations occur in the allocation of resources:

1. Few changes in the overall resources base.

2. Growth in the overall resource base, and

3. Decline in overall resource base

In case strategic development requires few changes in the overall resource base, the managers in organization manage resource allocation accordingly. In such a situation resource allocation is made either according to a formula where central direction is high or free bargaining that characterize decentralization.

Cost Analysis

Definition: In economics, the **Cost Analysis** refers to the measure of the cost – output relationship, i.e. the economists are concerned with determining the cost incurred in hiring the inputs and how well these can be re-arranged to increase the productivity (output) of the firm.

Cost Analysis

Definition: In economics, the **Cost Analysis** refers to the measure of the cost – output relationship, i.e. the economists are concerned with determining the cost incurred in hiring the inputs and how well these can be re-arranged to increase the productivity (output) of the firm.

In other words, the cost analysis is concerned with determining money value of inputs (labor, raw material), called as the overall cost of production which helps in deciding the optimum level of production.

There are several cost concepts relevant to the business operations and decisions and for the convenience of understanding these can be grouped under two overlapping categories:

Cost Concepts Used for Accounting Purposes: Generally, the accountants use these cost concepts to study the financial position of the firm. They are concerned with arranging the finances of the firm and therefore keep a track of the assets and liabilities of the firm. The accounting costs are used for taxation purposes and calculating the profit and loss of the firm. These are:

1. Opportunity Cost
2. Business Cost
3. Full Cost
4. Explicit Cost
5. Implicit Cost
6. Out-of-Pocket Cost
7. Book Cost

Analytical Cost Concepts Used for Economic Analysis of Business Activities: These cost concepts are used by the economists to analyze the likely cost of production in the future. They are concerned with how the cost of production can be managed or how the input and output can be re-arranged such that the overall profitability of the firm gets improved. These costs are:

1. **Fixed Cost**
2. **Variable Cost**
3. **Total Cost**
4. **Average Cost**
5. **Marginal Cost**
6. **Short-run Cost**
7. **Long-Run Cost**
8. **Incremental Cost**
9. **Sunk Cost**
10. **Historical Cost**
11. **Replacement Cost**
12. **Private Cost**
13. **Social Cost**

In business, the manager must have a clear understanding of the cost-output relation as it helps in cost control, marketing, pricing, profit, production, etc. The cost-output relation can be expressed as:

C = f (S, O, P, T)
Where, C =cost, S = Size of the firm, O = output, P = Price and T = Technology.

With the increase in the size of the firm, the economies of scale also increase and as a result the cost of per unit production comes down. There is a positive relation between the cost and the output, as the output increases the cost also increases and vice-versa. Likewise, the price of inputs is directly related to the price, as the input price increases the cost of production also increases. But however, the technology is inversely related to the cost, i.e. with an improved technology the cost of production decreases.

SHORT-RUN COST-OUTPUT RELATIONSHIP LONG-RUN COST-OUTPUT RELATIONSHIP

Short-Run Cost-Output Relationship

a. Fixed Cost is not Changed

Once the firm has invested resources into the factors such as **capital, equipment, building, top management personnel, and other fixed assets**, their amounts cannot be changed easily. Thus in the **short-run there are certain resources whose amount cannot be changed when the desired rate of output changes,** those are called **fixed factors.**

b. Variable Cost is Changed

There are **other resources** whose quantity used **can be changed almost instantly with the output change and they are called variable factors**.

nce certain factors do not change with the change in output, the cost to the firm of these resources is also fixed, hence fixed cost does not vary with output.

Thus, **the larger the quantity produced**, the **lower will be the fixed cost** per unit and marginal fixed cost will always be zero.

On the other hand, those factors whose quantity can be changed in the short-run is known as variable cost. Thus, the total cost of a business is the sum of its total variable costs (TVC) and total fixed cost (TFC).

TC = TFC + TVC

Long-Run Cost-Output Relationship

Fixed Cost is also changed

The long-run is a period of time during which the firm can vary all its inputs. **None of the factors is fixed** and **all can be varied to expand output**.

It is a period of time sufficiently **long to permit the changes** in plant like: **the capital equipment, machinery, land etc.,** in order to expand or contract output.

The long-run **cost of production is the least possible cost of production** of producing any given level of output when all inputs are variable including the size of the plant. In the long-run there is no fixed factor of production and hence there is no fixed cost.

BREAK-EVEN ANALYSIS

Break-even analysis is a very important aspect of business plan. It **helps the business in determining the cost structure** and the amount of sales to be done to earn profits.

It is usually included as a part of business plan to observe the profits and is enormously useful in pricing and controlling cost.

Break − Even Point =

Fixed Costs

Contribution or P/V Ratio

Using the above formula, the business can determine how many units it needs to produce to reach break-even.

When a firm attains break even, the cost incurred gets covered. **Beyond this point**, **every additional unit which would be sold would result in increasing profit**. The increase in profit would be by the amount of unit contribution margin.

Unit contribution Margin = Sales Price − Variable Costs

Let's have a look at the following key terms:

Fixed costs: Costs that **do not vary with output.**

Variable costs: Costs that **vary with the quantity produced** or **sold.**

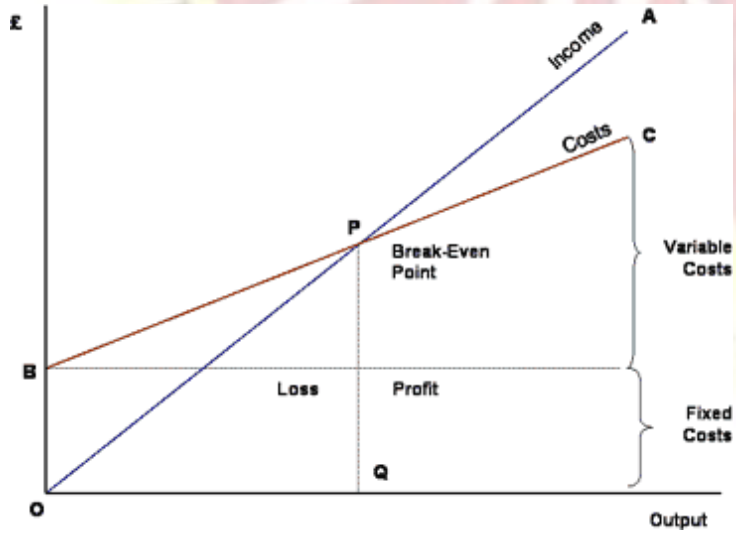
Total cost: Fixed costs plus variable costs at level of output.

Profit: The **difference between total revenue and total costs**, **when revenues are higher.**

Loss: The difference between total revenue and total cost, **when cost is higher than the revenue.**

Breakeven chart

The Break-even analysis chart is a graphical representation of costs at various levels of activity.



MANAGERIAL USES OF BREAK-EVEN ANALYSIS.

The main managerial uses of break-even analysis are:-

(i) It presents a microscopic picture of the profit structure of a business enterprise.
(ii) (ii) It sharpens the focus on certain leverages which can be operated upon to enhance its profitability.
(iii) (iii) It is possible for the management to examine the profit vulnerability of a business firm to the possible changes in business
(iv) (iv) The analysis is immensely useful for sales prospects, changes in cost structure, etc.
(v) (v) It is possible to devise managerial actions to maintain and enhance profitability of the firm.
(vi) (vi) The break-even analysis can be used for the following purposes:

Concept of Relations and Functions.

Generally, graphs are used to find out the relation between different variables, but when the relations are complex, equations and computer simulations are more powerful tools. A relation is defined as given if for an x value, one or more y values will be specified by the relation.

As a special case, however, a relation may be such that for each x value there exists only one corresponding y value. In that case y is said to be a function of x, and that is denoted by y — f(x), which is read: y equals f of x [Note: f(x) does not mean f times x]. A function is therefore a set of (x, y) with the property that any x value uniquely determines a y value. A function must be a relation but a relation may not be a function.

Average and Marginal Relations:

In optimization analysis, total, average, and marginal relations are very useful. The definition of total and average are well known, but the definition of marginal needs explanation. A marginal is deemed as the change in the dependent variable of a function associated with a unitary change in one of the independent variables.

Marginal Product ($MP/_N$) = Difference between successive figure in total physical product per period (col. IV).

Table 4.2 : Total, Average and Marginal Relations for a Hypothetical Production Function

I Input used per period (N)	II Total physical product per period (Q)	III Average product $(AP_N)^1$	IV Marginal product $(MP_N)^2$
0	0	0	7
1	7	7	13
2	20	10	11
3	31	10.3	6
4	37	9.3	3
5	40	8.0	– 1
6	39	6.5	– 4
7	35	5.0	

1. Average Product

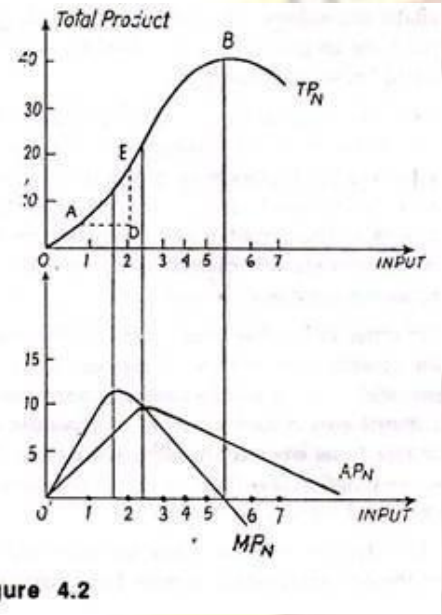


Figure 4.2

Average Product:

This is defined as $(AP_N) = Q/N$

Thus (AP_N) at point A on the graph is 7 units. This is the slope of the ray OA which connects point A with the origin. (AP_N) at B is exactly the same since it lies on the same ray through the origin (39.9/ 5.7 = 7).

ii. Marginal Product:

If Δ is used to show a small change, so that ΔQ is a change in Q and ΔN is a change in N, then marginal product is defined as:

$$(MP_N) = \frac{\Delta Q}{\Delta N} = \lim_{\Delta N \to 0} \frac{\Delta Q}{\Delta N} = \frac{dQ}{dN}.$$

This is the average slope of the total product curve itself over the interval. For instance (MP_N) for the second unit of input is the slope of the line AE which equals:

ED/AD = 13/1 =13

At a given point, however, (MP) is the actual slope of the total product curve.

Non-Linear Functions:

Generally, linear graphs and equations are used to illustrate economic relationship. Some of the common non-linear relationships we often come across in economics are shown below:

In fig. 4.3(a), (b), (c) the value of y depends on constant term and value of x, x^2 and x^3 respectively. In the rectangular hyperbola noted in fig. 4.3(d), the curve is asymptotic to both the axes (the curve does not touch the axes).

In fig. 4.3(e) expotentional graph is shown which is used to explain growth in economics. Fig. 4.3(f) shows a logarithmic function. In decision-making a dependent variable y may be a function of more than one independent variable. For example, total product is a function of labour, capital, fuel, business organisation, etc.

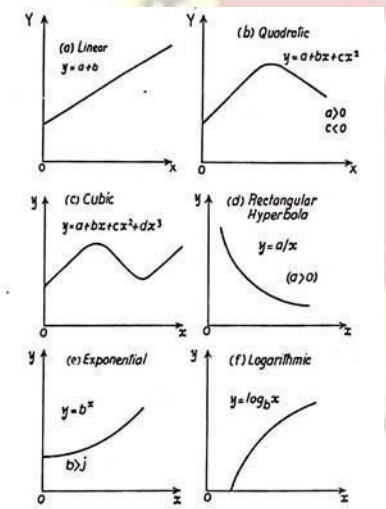


Figure 4.3
Linear and non-linear relationships

Capital investment analysis - Economics of size and capacity utilization input -output - analysis Capital Investment Analysis / Financial Analysis

Capital investment decisions essentially include the commitment of large sums of money which affect the business for several years. These decisions require purchasing of items such as land, machinery, buildings, feedstock, or equipment, which is one of the most important decisions that a business manager undertakes. In addition, purchase of a capital item requires immediate payment, whereas the income or benefits need time to increase. Since the benefits are reliant on future events, an intensive evaluation of investment options becomes inevitable.

Capital investment analysis evaluates long-term investments which might involve fixed assets such as equipment, machinery, or real estate. This process aims at identifying the most profitable business option. In performing a capital investment analysis, businesses may employ such methods as discounted cash flow analysis, risk-return analysis, risk-neutral valuation, and utility theory. Return on investment (ROI) is one approach of considering profits with regard to capital invested. Thus, an investment decision, a financing decision, and a dividend decision form a **capital investment analysis**.

Lucintel's Capital Investment Analysis provides financial statements (cash flow, P & L, and balance sheets) for next 25-30 years with payback period and internal rate of return (IRR). We replicate typical operations for various input conditions (cash, feedstock, labor, utility, equipment depreciation, etc.) and assess project returns for various scenarios.

Making this investment or capital allocation decision needs evaluating of the value of each opportunity or project which is a function of the size, timing, and predictability of future cash flows. Our process contains two fundamental tasks:

1. Economic profitability analysis to determine whether the investment will contribute to the long-term profits of the business.

2. Financial Feasibility analysis to find out if investment is potential enough to produce adequate cash income to make the principal and interest payments on borrowed funds that was used to buy the asset.

We perform both the analyses which help the management to make a final decision to accept or reject a particular project. We look into various competitive advantages of a company to identify profitability and expenses in various scenarios to make confident business decisions.

UNIT IV

MARKET STRUCTURE, PRICING AND OUTPUT; GENERAL EQUILIBRIUM.

Market Structure

A market is the area where buyers and sellers contact each other and exchange goods and services. Market structure is said to be the characteristics of the market. Market structures are basically the number of firms in the market that produce identical goods and services. Market structure influences the behavior of firms to a great extent. The market structure affects the supply of different commodities in the market.

When the competition is high there is a high supply of commodity as different companies try to dominate the markets and it also creates barriers to entry for the companies that intend to join that market. A monopoly market has the biggest level of barriers to entry while the perfectly competitive market has zero percent level of barriers to entry. Firms are more efficient in a competitive market than in a monopoly structure.

Perfect Competition

Perfect competition is a situation prevailing in a market in which buyers and sellers are so numerous and well informed that all elements of monopoly are absent and the market price of a commodity is beyond the control of individual buyers and sellers

With many firms and a homogeneous product under perfect competition no individual firm is in a position to influence the price of the product that means price elasticity of demand for a single firm will be infinite.

Pricing Decisions

Determinants of Price Under Perfect Competition

Market price is determined by the equilibrium between demand and supply in a market period or very short run. The market period is a period in which the maximum that can be supplied is limited by the existing stock. The market period is so short that more cannot be produced in response to increased demand. The firms can sell only what they have already produced. This market period may be an hour, a day or a few days or even a few weeks depending upon the nature of the product.

Market Price of a Perishable Commodity

In the case of perishable commodity like fish, the supply is limited by the available quantity on that day. It cannot be stored for the next market period and therefore the whole of it must be sold away on the same day whatever the price may be.

Market Price of Non-Perishable and Reproducible Goods

In case of non-perishable but reproducible goods, some of the goods can be preserved or kept back from the market and carried over to the next market period. There will then be two critical price levels.

The first, if price is very high the seller will be prepared to sell the whole stock. The second level is set by a low price at which the seller would not sell any amount in the present market period, but will hold back the whole stock for some better time. The price below which the seller will refuse to sell is called the Reserve Price.

Monopolistic Competition

Monopolistic competition is a form of market structure in which a large number of independent firms are supplying products that are slightly differentiated from the point of view of buyers. Thus, the products of the competing firms are close but not perfect substitutes because buyers do not regard them as identical. This situation arises when the same commodity is being sold under different brand names, each brand being slightly different from the others.

For example − Lux, Liril, Dove, etc.

Each firm is therefore the sole producer of a particular brand or "product". It is monopolist as far as a particular brand is concerned. However, since the various brands are close substitutes, a large number of "monopoly" producers of these brands are involved in a keen competition with one another. This type of market structure, where there is competition among a large number of "monopolists" is called monopolistic competition.

In addition to product differentiation, the other three basic characteristics of monopolistic competition are −

i. There are large number of independent sellers and buyers in the market.
ii. The relative market shares of all sellers are insignificant and more or less equal. That is, seller-concentration in the market is almost non-existent.
iii. There are neither any legal nor any economic barriers against the entry of new firms into the market. New firms are free to enter the market and existing firms are free to leave the market.

In other words, product differentiation is the only characteristic that distinguishes monopolistic competition from perfect competition.

Monopoly

Monopoly is said to exist when one firm is the sole producer or seller of a product which has no close substitutes. According to this definition, there must be a single producer or seller of a product. If there are many producers producing a product, either perfect competition or

monopolistic competition will prevail depending upon whether the product is homogeneous or differentiated.

On the other hand, when there are few producers, oligopoly is said to exist. A second condition which is essential for a firm to be called monopolist is that no close substitutes for the product of that firm should be available.

From above it follows that for the monopoly to exist, following things are essential −

i. One and only one firm produces and sells a particular commodity or a service.
ii. There are no rivals or direct competitors of the firm.
iii. No other seller can enter the market for whatever reasons legal, technical, or economic.
iv. Monopolist is a price maker. He tries to take the best of whatever demand and cost conditions exist without the fear of new firms entering to compete away his profits.

The concept of market power applies to an individual enterprise or to a group of enterprises acting collectively. For the individual firm, it expresses the extent to which the firm has discretion over the price that it charges. The baseline of zero market power is set by the individual firm that produces and sells a homogeneous product alongside many other similar firms that all sell the same product.

Since all of the firms sell the identical product, the individual sellers are not distinctive. Buyers care solely about finding the seller with the lowest price.

In this context of "perfect competition", all firms sell at an identical price that is equal to their marginal costs and no individual firm possess any market power. If any firm were to raise its price slightly above the market-determined price, it would lose all of its customers and if a firm were to reduce its price slightly below the market price, it would be swamped with customers who switch from the other firms.

Accordingly, the standard definition for market power is to define it as the divergence between price and marginal cost, expressed relative to price. In Mathematical terms we may define it as −

$$\mathbf{L} = \frac{(\mathbf{P} - \mathbf{MC})}{\mathbf{P}}$$

Oligopoly

In an oligopolistic market there are small number of firms so that sellers are conscious of their interdependence. The competition is not perfect, yet the rivalry among firms is high. Given that there are large number of possible reactions of competitors, the behavior of firms may assume

various forms. Thus there are various models of oligopolistic behavior, each based on different reactions patterns of rivals.

Oligopoly is a situation in which only a few firms are competing in the market for a particular commodity. The distinguishing characteristics of oligopoly are such that neither the theory of monopolistic competition nor the theory of monopoly can explain the behavior of an oligopolistic firm.

Two of the main characteristics of Oligopoly are briefly explained below −

i. Under oligopoly the number of competing firms being small, each firm controls an important proportion of the total supply. Consequently, the effect of a change in the price or output of one firm upon the sales of its rival firms is noticeable and not insignificant. When any firm takes an action its rivals will in all probability react to it. The behavior of oligopolistic firms is interdependent and not independent or atomistic as is the case under perfect or monopolistic competition.

ii. Under oligopoly new entry is difficult. It is neither free nor barred. Hence the condition of entry becomes an important factor determining the price or output decisions of oligopolistic firms and preventing or limiting entry of an important objective.

PRODUCT POLICY, RATES, PROMOTION AND MARKET STRATEGY

Product pricing can help your company achieve profitability, support product positioning, and complement your marketing mix.

Once your startup is ready to commercialize its product, you must determine how much to charge customers to purchase the product. In other words, it is time to establish the pricing structure.

Pricing in the marketing mix

Pricing is one of the four main elements of the marketing mix. Pricing is the only revenue-generating element in the marketing mix (the other three elements are cost centres—that is, they add to a company's cost). Pricing is strongly linked to the business model.

The business model is a conceptual representation of the company's revenue streams. Any significant changes in the price will affect the viability of a particular business model.

A well-chosen price should accomplish three goals:

achieve the company's financial goals (profitability)

fit within the realities of the marketplace (customers are willing and able to pay the set price)

support a product's positioning and be consistent with the other variables in the marketing mix (product quality, distribution issues, promotion challenges)

Pricing models and positioning for high-tech products

There are different methods of determining the price for high-tech products.

Cost + profit margin: Add a profit margin percentage to the costs associated with producing and distributing the product.

Rate of return and break-even point: Calculate the unit price: price = unit cost + [(rate of return× investment)÷ quantity sold]. Then determine the break-even point: the level at which sales figures cover related fixed and variable costs.

Market price: Set the price according to the main competitor's price.

Bidding price: Set the price according to available information about competitor bids and the customers' opinion of the product's advantages.

Comparison with substitute products: Set the price relative to products for which it will substitute.

Value-based pricing: Set the price based on how the customer values the product. (See below for further details.)

Value-based pricing

Value-based pricing attempts to establish the return generated by the product's use from the customer's point of view. How a customer perceives product value, and the actual value the customer receives, can be estimated by identifying:

the target customer (their budget, ability to purchase)—specifically, the value can be estimated by developing an application scenario

buyer motivation (willingness to buy, the risk involved)

the product and its complexity (its ability to meet customer's objectives)

distribution (delivery, support)

Value-based pricing and the technology adoption lifecycle (TALC)

Setting a price in the Early Market involves some guesswork as the product's value is unproven at this stage. To guide your pricing decisions, determine the:

customer's expected return on investment from buying the product

amount your customer may be willing to pay

referential price for the new product (this is the price compared to the cost of the total project)

Advertising Rates and Budget

Advertising is simply the action of drawing public attention to goods, services, events, or to whatever you want them to pay attention. Advertising today is a highly specialised business which owes its development to the continuous advance in mass communication and in manufacture even if its heart it still is drawing public attention to something. Advertisement budgeting

Advertising has got two aspects: the first one deals with the problem of controlling and allocating cost, and the second is concerned with the problems of the techniques of advertising.

Contents:

1. Advertising Cost

2. Determining Advertisement Budget

3. Advertisement Effectiveness

Advertising cost in economic theory is assumed to include all pure selling costs. Heavy expenditure on advertising is usually undertaken by competing firms.

Two types of advertising are:

(i) Informative:

To give details to the public concerning the availability of a product or service, its uses, advantages, prices, quality, etc.

(ii) Persuasive:

To obtain new customers and to retain existing ones, i.e. to develop or retain brand loyalties.

Advertising costs being one kind of selling costs are designed to increase the demand for the firm's products. The function of advertising is to inform consumers. As pointed out earlier in economic theory, advertising costs are known as selling costs, which may be defined as "as the costs necessary to persuade a buyer to buy one product rather than another or to buy from one seller rather than another". Selling costs are those that adapt the demand to the product, in other words, setting costs are incurred to get the business.

2. Determining Advertisement Budget:

The term 'advertisement budget' refers to the amount which a firm spends on advertising, alternatively the amount which may be earmarked for it. Determining advertisement budget is an important managerial task. The firm may be spending the amount in order to achieve the sales goals. Although advertising is treated as a current expense, part of it is really an investment that builds up an intangible value called good will.

There are some specific factors to be considered when determining the advertisement budget and they are listed below:

(i) Stage in the Product Life-Cycle:

New products typically receive large advertising budgets to create awareness. Established products generally are supported with lower budgets.

(ii) Market Share and Consumer Base:

Large market share brands that generally require less advertising expenditure and low market share brands require more advertising expenditure.

(iii) Competition:

In a market with a large number of competitors and high advertising spending, a brand must advertise more heavily to be heard above die noise in the market.

(iv) Advertising Frequency:

The number of repetitions needed to put across the brands message to consumers also determines the advertising budget.

(v) Product Substitutability:

Products which face substitutes require heavy advertising to establish a differential image.

Methods for Determining Total Advertising Budget:

Joel Dean lists the following methods of determining an advertisement budget:

1. The Percentage of Sales Approach:

In this method, the sales value of the preceding year is first taken and then the expected sales during the year in question are arrived at. Thereafter, some percentage of the expected sales is considered and this is known as the percentage of sales approach.

This method was dominant in the past and even now it is widely used. It may be a fixed percentage or a percentage that varies with conditions of sales. The method is simple in calculation. In this method, a clear relationship exists between sales and advertising expenses. By adopting this method advertisement war can be avoided.

The aim of advertising is to increase the demand for the product and therefore it should be viewed as the cause, not the result of sales. But this approach views advertising on the results of sales. It leads to a budget set by the availability of funds rather than by market opportunities.

2. The All-You-Can Afford Approach

Under this approach, a company spends as much on advertising as it can afford. It can spend for advertising as much as the funds permit. From the name itself, it is clear that the affordable amount set aside for advertising is known as affordable method. This approach appears to be more realistic, for all companies generally spend that much amount on advertisements which they can afford, even though they may not say so.

As advertising outlays are growing out of all proportions in the modem business, this method seems to provide a basis for many firms with regard to advertising outlet. Generally, a firm has to take into account the financial constraints while resorting to advertisement schemes.

This approach is helpful in the following ways in determining the advertising budget:

(i) "It produces a fairly defensible cyclical timing of that part of advertising outlay that has cumulative long-run efforts."

(ii) This method is more suitable to the marginal firms.

(iii) This method sets a reasonable limit to the expenditure to be incurred on advertising.

However, the method has got some inherent weaknesses and they are the following:

(i) It is difficult to plan long-term marketing development.

(ii) The opportunities of advertising may be overlooked.

3. The Return on Investment Approach:

This approach treats advertisement as a capital investment rather than as a more current expenditure.

Advertising has a two-fold effect:

(i) It increases current sales.

(ii) It builds up future goodwill.

An increase in current sales involves such decisions as the selection of the optimum rate of output in order to maximise short run profits. The building up of goodwill for the future calls for a selection of the pattern of investment which is expected to produce the best scale of production, leading to the maximum long run profits.

This method emphasizes the relation between advertisement and sales. Sales are measured with advertising and without advertising. The rate of return provides a basis for advertising budgeting, as the

available funds will have to be distributed among various kinds of internal investment on the basis of prospective rate of return.

The limitation to the return on investment approach is that one cannot accurately judge the rate of return as advertising investment.

It involves the following problems and they are:

(i) Problem of measuring the effect of advertisement accumulation as long run sales volume.

(ii) Problem of estimating the evaporation of the cumulative effects of advertising, and

(iii) Problem of distinguishing of investment advertising from outlays for immediate effect.

4. The Objective and Task Approach:

This method is also known as the research objective method. This method became prominent during the war time. This method calls upon marketers to develop their promotion budgets by defining their specific objectives, determining the tasks that must be performed to achieve these objectives and estimating the cost of performing these tasks. The sum of these costs in the proposed budget.

This approach is an improvement over the percentage of sales approach. But the fundamental relationship between the objectives and the advertising media again depends upon the past experience of the firm. In reality, tasks to be determined should be related to the objectives of the firm and to the past records of the firm.

This method has the following advantages:

(i) It requires management to spell out its assumption about the relationship between amount spent, exposure level, trial rates and regular usage.

(ii) This method can be extended to highly promising experimental and marginal approaches.

(iii) With the help of this method a clear advertisement programme can be drawn.

There are inherent defects in this approach. The important problem of the method is to measure the value of such objectives and to determine whether they are worth the cost of attaining them. This method is also highly irrational.

5. The Competitive Parity Approach:

This approach is nothing but a variant of the percentage of sales approach. A firm sets its budget solely depending upon the basis of competitor's expenditure. The advertising cost is decided on the basis of spending for advertising by the competitors in the same industry. Two arguments are advanced for this method. One is that the competitors' expenditures represent the collective wisdom of the industry. The other is that it maintains a competitive parity which helps to prevent promotion wars.

Production Innovations:

Entrepreneurs search for change, respond to it and exploit it as an opportunity. Wilken has identified the various types of changes initiated by entrepreneurs and they are:

(i) Initial expansion – Original production of goods

(ii) Subsequent expansion – Subsequent change in the amount of goods produced.

(iii) Factor innovation – Increase in supply or productivity of factors.

(a) Financial – Procurement of capital from new source or in new form.

(b) Labour – Procurement of labour from new source or of new type, and upgrading of existing labour.

(c) Material- Procurement of old material from new source or use of new material.

(iv) Production Innovations – Changes in the production process.

(a) Technological – Use of new production technique

(b) Organisational- Change of form or structure of relationships among people.

(v) Market Innovations – Changes in the size or composition of the market.

(a) Product – Production of new good or change in quality or cost of existing good.

(b) Market – Discovery of new market.

Use of New Production Technique:

Production innovation relates to changes in the production process. The entrepreneur or manager in the first place unlike the guild master and the merchant-capitalist of the putting out system owned, or as Max Weber puts it "appropriated", all the physical means of production, land, buildings, machinery, tools, and raw materials.

To the entrepreneur these had become property, which could be disposed of as he wished his rights in them were practically unlimited. The goods which were produced by the factory also belonged solely to the entrepreneur, to be used either for personal use or for sale.

In the second place, in order to carry out the process of production, the entrepreneur unlike the feudal lord bought or hired labour. He had responsibilities to the worker until the wages were paid. Once the wages had been paid, his responsibilities to the workers were ended.

The entrepreneur was responsible neither for the conduct of the workers apart from working hours nor for their maintenance in the absence of work. Thus the new entrepreneur combined the advantages of the ownership of the means of production on the one hand and a lack of responsibility for the human element in the productive process on the other.

Thirdly, the supreme purpose of the entrepreneur in appropriating the means of production in hiring workers was profit making. The entrepreneurs sought the profit for its own sake. He desired and tried the maximisation of profit.

It will be evident that the position of the entrepreneur in the market was a strong one. Owning the means of production, free from immediate economic need without personal ties to the worker, the entrepreneur could afford to bargain long and shrewdly with his workers. Indeed the great economic power of the management is one of the dominant themes of industrial history.

Although management and the workers were sharply divided in theory, this sharp division did not develop in the beginning. Frequently, the early entrepreneur was also the chief foreman of the works, the designer, the tool builder, and on occasion one of the workers. The social separation of management and the worker occurred only at a later stage of industrial development. Production involves a number of processes. Among them mechanisation, automatic and specialisation are of importance. Let us now discuss these processes.

MECHANISATION:

Dominant technology also includes mechanisation. The production in the industrial system depends upon the machinery. The machines came into being due to so many factors. The machine was a device, which indirectly performed some industrial task without human intervention.

Men 'tended', 'fed', 'operated' or ran the machine, but it was the loom which wove the cloth, the press which embossed the leather, the locomotive which handled the train. Sometimes man supplied the energy to run the machine but more often some other agency was used: animal, wind, water, steam, and later electricity and atomic energy.

All these developments are described in one phase industrial revolution. It was a continuous process which brought about rapid changes in the volume and technique of production. The capitalist system was adopted and goods were produced in anticipation of demand.

The favourable conditions may be grouped into several categories. First, mechanisation was strongly favoured by the same factor which had led to increasing rationalisation of production through division of labour that is the expansion of domestic and foreign markets. Mechanisation greatly increased the efficiency and effectiveness of industry.

The machine raised output levels, often improving the quality and durability of the process. Furthermore, the machine cut costs by displacing labour and increased profitability of the industry as well as improved commercial and larger amounts of capital available for further investment in mechanisations.

UNIT V

TYPES AND OBJECTIVES OF PRICING

Pricing is the process of **determining** what a company will receive in exchange for its product or service. A business can use a variety of pricing strategies when selling a product or service. The **price can be set to maximize profitability** for each unit sold or from the market overall. It can be **used to defend an existing market from new entrants,** to increase market share within a market or to enter a new market.

There is a need to follow certain guidelines in pricing of the new product. Following are the common pricing strategies:

A. Pricing a New Product

Most companies do not consider pricing strategies in a major way, on a day-to-day basis. The **marketing of a new product poses a problem** because new products have **no past information.**

Fixing the first price of the product is a major decision. The **future** of the company **depends** on the **soundness of the initial pricing decision** of the product. In large multidivisional companies, top management needs to establish specific criteria for acceptance of new product ideas.

The price fixed for the new product must have completed the advanced research and development, satisfy public criteria such as consumer safety and earn good profits. In pricing a new product, below mentioned two types of pricing can be selected:

1. Skimming Price

Skimming price is known as short period device for pricing. Here, companies tend to **charge higher price in initial stages.**

2. Penetration Price

In penetration pricing lowest price for the **new product is charged.** This **helps** in prompt sales and **keeping the competitors away from the market**. It is a long term pricing strategy and should be adopted with great caution.

B. for Multiple Products

As the name indicates multiple products signifies production of more than one product. But firms in reality usually produce more than one product and then there exists interrelationships between those products. Such products are **joint products or multi-products**. In joint products the inputs are common in the production process and in multi-products the inputs are independent **but have common overhead expenses.**

Following are the pricing methods followed:

1. **Full Cost Pricing Method**

Full cost plus pricing is a price-setting method under which you **add together the direct material cost, direct labor cost, selling and administrative cost,** and overhead costs for a product.

This method is most commonly used in situations where products and services are provided based on the specific requirements of the customer. Thus, there is **reduced competitive pressure** and **no standardized product being provided**. The method may also be **used** to **set long-term prices** that are sufficiently high to ensure a profit after all costs have been incurred.

2. **Marginal Cost Pricing Method**

By this policy, a producer charges for each product unit sold, only the addition to total cost resulting from materials and direct labor.

3. **Transfer Pricing**

Transfer Pricing relates to international transactions performed between related parties and covers all sorts of transactions.

A. **Dual Pricing**

In simple words, different prices offered for the same product in different markets is dual pricing. **Different prices for same product** are basically known as **dual pricing.** The **objective of dual pricing** is to **enter different markets** or a new market with one product offering lower prices in foreign county.

Airline Industry could be considered as a prime example of Dual Pricing. Companies offer lower prices if tickets are booked well in advance. The demand of this category of customers is elastic and varies inversely with price.

PRODUCT LINE PRICING

Product line pricing involves the separation of goods and services into cost categories in order to create various perceived quality levels in the minds of consumers. You might also hear product line pricing referred to as price lining, but they refer to the same practice.

The goal of product line pricing is to maximize profits by positioning new products with the highest number of features or with the most cutting-edge individual features at the highest price

point. At the same time, you'll be keeping a base product (i.e., one with fewer or older features with lower performance expectations) on sale as a lower-priced alternative.

Before we get ahead of ourselves, it's probably best if we make sure we understand exactly what "product lines" are.

The simple definition is that a product line is a group of related products, differentiating by features and price. Setting products at different price points allows the would-be customer to orient themselves towards the one most likely to fit their needs and spending capabilities.

4 STRATEGIES FOR PRODUCT LINE PRICING

Now we come to the motherlode: how you actually go about choosing one of the various product line pricing strategies available. The best option for you will differ based on your company's position in the market and the nature of your product.

Captive pricing

Captive pricing involves your company taking advantage of a product that will be used primarily to attract a large volume of customers. That product can sometimes be a loss leader—a basic product sold for a very low price or free in order to bring in new business. The point is to encourage a customer to buy additional products that enhance their original purchase.

Real-world examples might include a games console packaged with free games or a free phone handset with a wireless contract (as we saw above in Apple's product line pricing strategy).

In SaaS, an example might involve using the freemium model. Here, your lower-price offering is a free subscription. This option will include only one or two key features. The aim is to demonstrate the usefulness of those included features, with the intent to charge extra for additional features or for the use of the original features after a certain period of time has elapsed.

RESTRICTIVE TRADE PRACTICES

Any trade **practice that that tend to block the flow of capital** into production and also bring in conditions of delivery to affect the flow of supplies leading to unjustified costs.

Such as

3. Refusal to deal with persons or classes of persons
4. Tie in sales or full line forcing
5. Exclusive dealing agreements
6. Collective price distribution and tendering
7. Discriminatory dealing
8. Re-sale price maintenance

9. Restriction on output or supply of goods
10. Control of manufacturing process
11. Boycott
12. Price control agreements
13. Government recognition of practices as restrictive
14. Residual restrictive trade practices

Unfair Trade Practices

Unfair trade **practice means a trade practice** which, for **the purpose of promoting the sale**, use or supply of any goods or for the provision of any service, **adopts any unfair or deceptive practice.**

1. Misleading advertisements and false representation
2. Advertising of bargain price
3. Falsely representing second-hand goods as new.
4. Misleading representation regarding usefulness, need, quality, standard, style etc of goods and services
5. Supplying unsafe and hazardous products
6. Hoarding or destroying of goods
7. Refusal to sell goods , resulting in a price rise
8. Giving false facts regarding sponsorship, affiliation etc. of goods and services.
9. Giving false guarantee or warranty on goods and services without adequate tests.

OBJECTIVES – MRTP Act 1969

1. To control monopolies and monopolisticv trade practices
2. To regulate the concentration of economicv power t power to the common detriment.
3. To prohibit restrictive trade practices
4. Regulation of unfair trade practices

PRICE DISCRIMINATION –

Price Discrimination and Types of Discrimination.

Price discrimination means that the producer **charges different prices for different consumers for the same goods and service**. **Price discrimination occurs when prices differ even though costs are same.** For example**, Doctors charge different fees for different customers**. In case they charge different prices in different markets, people go to the market where price is low. Then it gets equalized in the long run. There are various types of price discrimination:

They are:

1. Personal Discrimination

2. Place Discrimination

3. Trade Discrimination

4. Time Discrimination
5. Age Discrimination
6. Sex Discrimination
7. Location Discrimination
8. Size Discrimination
9. Quality Discrimination
10. Special Service
11. Use of services
12. Product Discrimination

OBJECTIVES OF PRICE DISCRIMINATION:

1. To dispose the surpluses
2. To develop new market
3. To Maximize use of unutilized capacity
4. To Earn monopoly profit
5. To Retain export market
6. To Increase the sales

MEASUREMENT OF ECONOMIC CONCENTRATION –

ECONOMIC theory might contribute in two possible ways to the development of a satisfactory measure or set of measures of concentration. The theory of price and general competitive strategy under conditions of oligopoly might provide guidance for choosing the measure that best distinguishes industries according to differences in their methods of competition. While I am not too familiar with this branch of economic theory, I doubt if it could be of much use at the present stage of its development, when—under the impact of Von Neumann's and Morgenstern's work on the general theory of strategy—_it is in a state of ferment. Furthermore, I am not at all convinced that our main purpose in measuring concentration is (or should be) to distinguish among industries or economies according to their methods of price setting and competition. The public are concerned about industrial concentration, because they are concerned about its economic and political effects. The economist should, therefore, analyze at least the economic effects and assess their importance. Accordingly, measures of concentration should be evolved with a view to their usefulness in accomplishing this task. This criterion is very different from the criterion mentioned above, since the methods of price setting and competition brought about by concentration are neither the only nor necessarily the most important effects of concentration. Hence, the second possible contribution of economic theory is to make hypotheses as to the various effects of concentration. By so doing, it will indicate the various uses to which measures of concentration will be put and thus help to develop the most satisfactory measure.

EFFECT ON INCOME DISTRIBUTION

Industrial concentration has been attacked chiefly because of its effect on income distribution. Some attack it on equalitarian grounds, because concentration is generally believed to enhance the inequality of income distribution. Others feel that it is inequitable for anyone to receive a higher income than is necessary to call forth the supply of his type of services in the socially desirable quantities. In general, many resent the fact that in a world of monopolies and countermonopolies inequalities of income arise that have no economic justification or explanation but are caused by disparities in bargaining power. Furthermore, income distribution is not a matter of equity alone. Since it is one of the determinants of specialization and of the flow of primary resources into different uses, one can argue that income distribution is also a matter of efficiency_an efficient income distribution being defined as one that would bring about an efficient allocation of resources.

2. EFFECT ON DISTRIBUTION OF POWER

THE next effect of industrial concentration I want to deal with is its effect on the distribution of social and political power. I shall consider this effect separately, partly because the distribution of social and political power is important quite aside from the effects it may have on income distribution, partly because concentration may affect income distribution and the distribution of social power in different ways, and partly also because value judgments may be different with respect to the two distributions.

*****