

SYLLABUS FOR BUSINESS ECONOMICS

UNIT I

Introduction: Economics and Business Economics– Meaning, Nature, concept &

Scope of Business economics. Basic problem of an Economy and Role of price

Mechanism – Basic problems of an economy, Classification of Economy, Its

features, advantages and disadvantages. Free Enterprise Economy: Meaning &

Features.

Theory of utility : Theory of Consumer Behaviour – Nature of Human wants, Utility

Analysis - Meaning and definition of utility, Concepts of Marginal Utility, Total Utility,

Cardinal and ordinal approach of utility(Difference), Features of Utility, Law of

diminishing Marginal utility.

UNIT II

Theory of Demand and supply -Theory of Demand: Concept of Demand, Law of

Demand-Meaning, Definition, Assumptions & Exceptions. Elasticity of Demand -

Meaning, Types and Factors affecting Elasticity of Demand. **Demand Forecasting –**

Meaning, Definition, Importance and scope of Demand Forecasting, Methods of

demand forecasting.

Supply Analysis – Supply: Meaning, Determinants and functions of Supply. Law of

Supply, Elasticity of Supply: Meaning of Elasticity of Supply, Types of Elasticity of

Supply.

Unit – III

Theory of Production and cost - Theory of Production: Meaning of Production,

Factors of production, Concepts of Total Product, Average product and Marginal

Product, Production Function, Short Run Production Function: Law of Variable

Proportion, ISO Quant Curve, Long Run Production Function, Law of Returns to

Scale.

Theory of Cost – Meaning of Cost, Cost Concepts, Cost Function, Concepts of total

Cost ,Average Cost and Marginal Cost, Short Run Average Cost Curves, Long Run

Cost Curve, Economies and Diseconomies of Scale

UNIT IV

Market Structure And Pricing theory- Market Structure: - Meaning of market,

Classification of Market, Concepts of Total revenue, Average revenue and Marginal

revenue, Market Structure - Concept ,Features types.

Price – Cost and Output Determination under Different types of markets- Perfect

Competition, Monopoly, Monopolistic Competition, Equilibrium of firms under

different market structures in short run and long run. Price Discrimination in

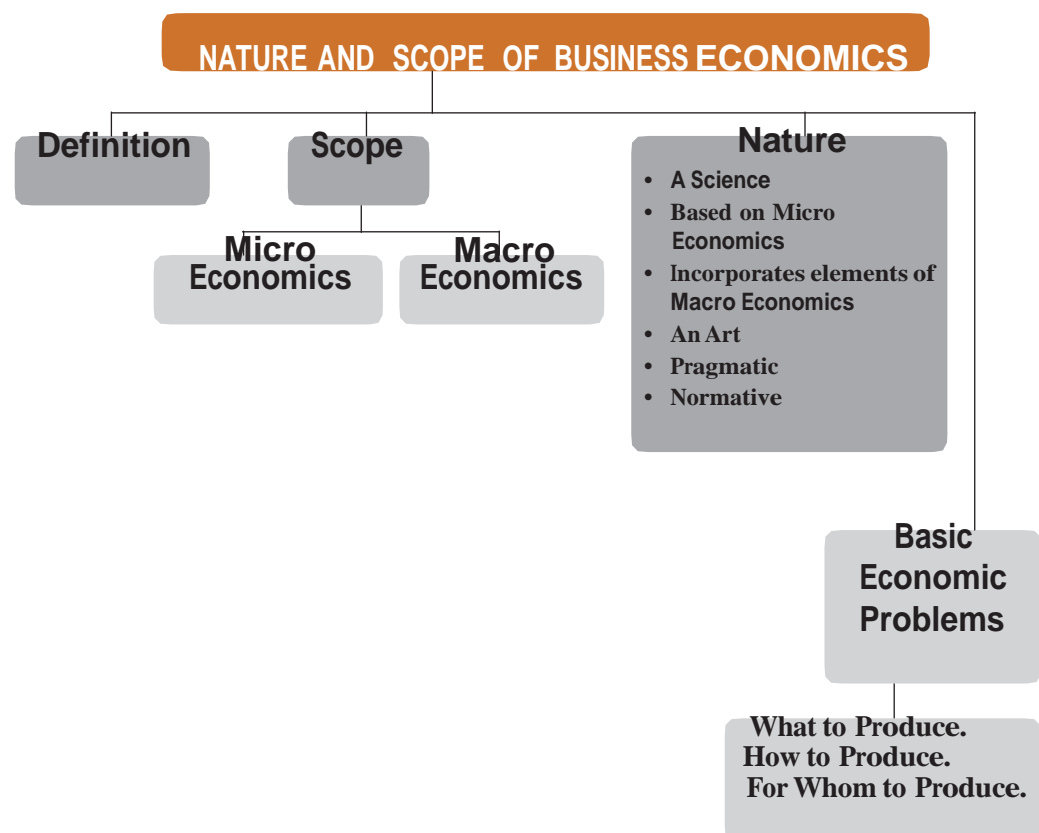
monopoly and oligopoly. Kinked demand curve.

Before we understand business economics we need to see the meaning of economics.

General statements about meaning of economics =

- Economics is a social science which deals with production consumption, exchange of goods and services & distribution.
- Economics is the study of how money, business and industries are organised.
- Economics is the study of how humans makes decisions in the condition of scarcity.....
- Meaning of economics – It is a study of how we work together to transform the scare resources into goods and services to satisfy human wants and distribution of those goods.
- Meaning of business economics – Business economics is concerned with application of economic concepts and economic analysis to the problems of formulating rational, logical and managerial decisions.

NATURE AND SCOPE OF BUSINESS ECONOMICS



MICRO Economis (PRICE Theory)

Theory Of
Product Pricing

- 1) Theory of demand
- 2) Theory of Supply
- 3) Theory of Production and Costs

Theory of Factor
Pricing

- 1) Theory of Rent
- 2) Theory of Interest
- 3) Theory of Wages
- 4) Theories of Profit

Theory Of Economic
Welfare

MACRO Economis (INCOME Theory)

Theory Of Employment and
agregate output

- 1) Theory of Consumption
- 2) Theory of Investment

Theory of Business Cycle

- 1) Causes of Business
- 2) Consequences
- 3) Remedial Means

Theory Of Inflation

- 1) Demand for infaltion
- 2) Supply of Money
- 3) Supply of Goods & Services
- 4) Monetary Policies
- 5) Fiscal Policy

Theory of
Economic
Growth

Macro
Theories of
distribution
(Wages &
Profit

INTRODUCTION

What is Economics about?

The term 'Economics' owes its origin to the Greek word 'Oikonomia' which means 'household'. Till 19th century, Economics was known as 'Political Economy'. The book named 'An Inquiry into the Nature and Causes of the Wealth of Nations' (1776) usually abbreviated as 'The Wealth of Nations', by Adam Smith is considered as the first modern work of Economics.

Definitions of Economics

As human needs and desires are growing, the scope and importance Of economics is expanding and diversifying.

Different economists have defined economic in a different point of view.

And hence these Definitions are grouped as per their views.

- ❖ **Wealth definition** = Adams Smith = Classical approach
- ❖ **Welfare definition** = Alfred Marshal = Neo-classical approach
- ❖ **Scarcity definition** = Lionel Robbins = Modern approach
- ❖ **Employment & growth oriented definition** = John Keynes

- **Adam Smith the father of economics** Says “ An enquiry into the nature and causes of wealth of nation”.
- According **Alfred Marshal** “Economics deals with material welfare. Economics is one side the study Of wealth and on the other hand it is a part of the study of man.”
- As per **Lionel Robbins** “Economics is the science which studies human behavior as a relationship between ends and scarce means which have alternative uses”.
- **John Keynes** “ Economics is the study of allocation and development of scarce resources and of the determinants of employment, output, income and economic growth”.

Before we start with the meaning of Business Economics, it is important for us to understand **what Economics is** about. For this, consider the following situation:

It is your birthday and your mother gives you ₹ 1000 as birthday gift. You are free to spend the money as you like. What will you do? You have many options before you, such as:

Option 1 : You can give a party to your friends and spend the whole money on them.

Option 2 : You can buy yourself a dress for ₹ 1000.

Option 3 : You can go for a movie and eat in a restaurant of your choice.

Option 4 : You can buy yourself a book and save the rest of the money.

What do you notice? You have many options before you. Given a choice, you would like to spend not only on your friends, but would also like to go for a movie, eat in a restaurant, buy a dress and a book and save some money. However, you cannot have all of them at the same time. Why? Because you have only ₹ 1000 with you. Had your mother given you ₹ 2000, you might have satisfied more of your desires. But, she has not. Now, you find yourself in a dilemma as to which of the above options to choose. You will have to go for one option or a combination of one or more options. What do you do? You evaluate the various alternatives and choose the one that gives you the greatest satisfaction. Similar dilemma is faced by every individual, every society and every country in this world. Life is like that. Since we cannot have everything we want with the resources we have, we are forever forced to make choices. Therefore, we choose to satisfy only some of our wants leaving many other wants unsatisfied.

These two fundamental facts that:

- (i) 'Human beings have unlimited wants'; and
- (ii) 'The means to satisfy these unlimited wants are relatively scarce' form the subject matter of Economics.

Let us now examine what Economics studies about. Economics is the study of the processes by which the relatively scarce resources are allocated to satisfy the competing unlimited wants of human beings in a society. Of course, the available resources will be efficiently used when they are allocated to their highest valued uses. Economics is, thus, the study of how we work together to transform the scarce resources into goods and services to satisfy the most pressing of our infinite wants and how we distribute these goods and services among ourselves.

This definition of Economics, with the narrow focus on using the relatively scarce resources to satisfy human wants, is the domain of modern neo classical micro economic analysis. Despite being correct, it is incomplete as it brings to our mind the picture of a society with fixed resources, skills and productive capacity, deciding on what specific kinds of goods and services it ought to produce with the given resources and how they ought to be distributed among the members of the society. However, two of the most important concerns of modern economies are not fully covered by this concept.

NATURE AND SCOPE OF BUSINESS ECONOMICS

On the one hand, we find that the productive capacity of modern economies has grown tremendously. Population and labour force have increased, new sources of raw materials have been discovered, and new and better plant and equipments have been made available on farms and in factories and mines. Not only has the quantity of available productive resources increased, their quality has also improved substantially. Better education and newly acquired skills have raised the productivity of labour force, and has led to the discovery of completely new kinds of natural resources such as shale gas and new alternative sources of energy. On the other hand, we know that the resulting growth in production and income has not been smooth. There have been periods in which output not only failed to grow, but also actually declined sharply. During such periods, factories, workers and other productive resources have remained idle due to insufficient demand.

Economics, therefore, concerns itself not just with the crucial concern of how a nation allocates its scarce productive resources to various uses; it also deals with the processes by which the productive capacity of these resources is increased and with the factors which, in the past, have led to sharp fluctuations in the rate of utilisation of these resources.

In the day-to-day events, we come across several economic issues such as changes in the price of individual commodities as well as in the general price level; economic prosperity and higher standards of living of some countries despite general poverty and poor standards of living in others; and some firms making extraordinary profits while others close down etc. These are fundamentally matters connected with economic analysis. The study of Economics will enable us to develop an analytical approach that helps us in understanding and analysing a wide range of economic issues. It would also provide us with a number of models and frameworks that can be applied in different situations. The tools of Economics assist in choosing the best course of action from among the different alternative courses of action available to the decision maker. However, it is necessary to remember that most economic problems are of complex nature and are affected by several forces, some of which are rooted in Economics and others in political set up, social norms, etc. The study of Economics cannot ensure that all problems will be appropriately tackled; but, without doubt, it would enable a student to examine a problem in its right perspective and would help him in discovering suitable measures to deal with the same.

1.0.1 Meaning of Business Economics

Having understood the meaning of Economics, let us now understand what Business Economics is. For this, consider the following situation:

What do you notice in the hypothetical example given above? The management of the company is faced with the problem of decision making.

As we are aware, the survival and success of any business depends on sound decisions. Decision making refers to the process of selecting an appropriate alternative that will provide the most efficient means of attaining a desired end, from two or more alternative courses of action. Decision making involves evaluation of feasible alternatives, rational judgment on the basis of information and choice of a particular alternative which the decision maker finds as the most suitable. As explained above, the question of choice arises because our productive resources such as land, labour, capital, and management are limited and can be employed in alternative uses. Therefore, more efficient alternatives must be chosen and less efficient alternatives must be rejected.

The management of a business unit generally needs to make strategic, tactical and operational decisions. A few examples of issues requiring decision making in the context of businesses are illustrated below:

- w Should our firm be in this business?
- w Should the firm launch a product, given the highly competitive market environment?
- w If the firm decided on launching the product, which available technique of production should be used?

- w From where should the firm procure the necessary inputs and at what prices so as to have competitive edge in the market?
- w Should the firm make the components or buy them from other firms?
- w How much should be the optimum output and at what price should the firm sell?
- w How will the product be placed in the market? Which customer segment should we focus on and how to improve the customer experience? Which marketing strategy should be chosen? How much should be the marketing budget?
- w How to combat the risks and uncertainties involved?

Decision making on the above as well as similar issues is not simple and straightforward as the economic environment in which the firm functions is highly complex and dynamic. The problem gets aggravated because, most of the time, decisions are to be taken under conditions of imperfect knowledge and uncertainty. Decision making, therefore, requires that the management be equipped with proper methodology and appropriate analytical tools and techniques. Business Economics meets these needs of the management by providing a large corpus of theory and techniques. Briefly put, Business Economics integrates economic theory with business practice.

Business Economics, also referred to as Managerial Economics, generally refers to the integration of economic theory with business practice. While the theories of Economics provide the tools which explain various concepts such as demand, supply, costs, price, competition etc., Business Economics applies these tools in the process of business decision making. Thus, Business Economics comprises of that part of economic knowledge, logic, theories and analytical tools that are used for rational business decision making. In brief, it is Applied Economics that fills the gap between economic theory and business practice.

Business Economics has close connection with Economic theory (Micro as well as Macro-Economics), Operations Research, Statistics, Mathematics and the Theory of Decision-Making. A professional business economist has to integrate the concept and methods from all these disciplines in order to understand and analyse practical managerial problems. Business Economics is not only valuable to business decision makers, but also useful for managers of 'not-for-profit' organisations.

DEFINITIONS OF BUSINESS ECONOMICS

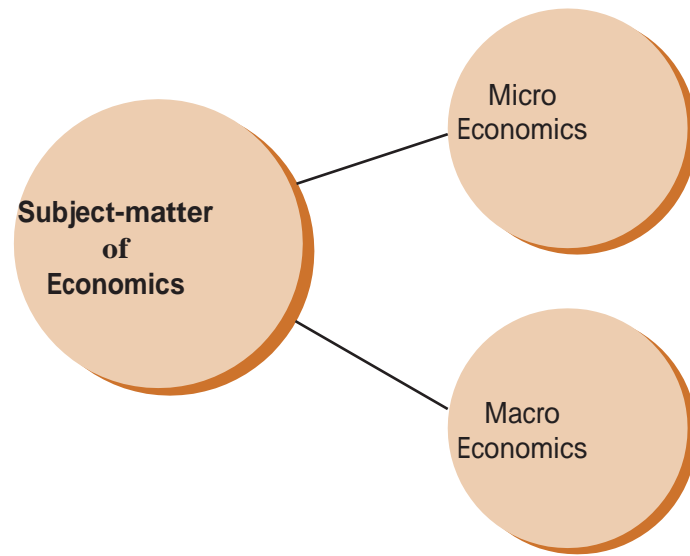
Business Economics may be defined as the use of economic analysis to make business decisions involving the best use of an organization's scarce resources.

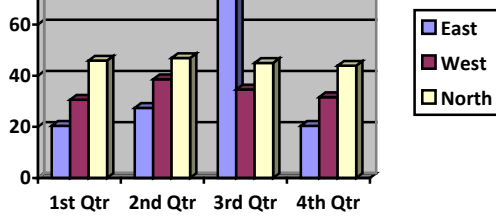
Joel Dean defined Business Economics in terms of the use of economic analysis in the formulation of business policies. Business Economics is essentially a component of Applied Economics as it includes application of selected quantitative techniques such as linear programming, regression analysis, capital budgeting, break even analysis and cost analysis.

Our approach in this text is to focus on the heart of Business Economics i.e. the Micro Economic Theory of the behaviour of consumers and firms in competitive markets. This theory provides managers with a basic framework for making key business decisions about the allocation of their firm's scarce resources.

1.2 NATURE OF BUSINESS ECONOMICS

Economics has been broadly divided into two major parts i.e. Micro Economics and Macro Economics. Before explaining the nature of Business Economics, it is pertinent to understand the distinction between these two.





Micro Economics is basically the study of the behaviour of different individuals and organizations within an economic system. In other words, Microeconomics examines how the individual units (consumers or firms) make decisions as to how to efficiently allocate their scarce resources. Here, the focus is on a small number of or group of units rather than all the units combined, and therefore, it does not explain what is happening in the wider economic environment.

We mainly study the following in Micro-Economics:

- (i) Product pricing;
- (ii) Consumer behaviour;
- (iii) Factor pricing;
- (iv) The economic conditions of a section of people;
- (v) Behaviour of firms; and
- (vi) Location of industry.

Macro Economics is the study of the overall economic phenomena or the economy as a whole, rather than its individual parts. Accordingly, in Macro-Economics, we study the behaviour of the large economic aggregates, such as, the overall levels of output, total consumption, total saving and total investment and also how these aggregates shift over time. It analyzes the overall economic environment in which the firms, governments and households make decisions. However, it should be kept in mind that this economic environment represents the overall effect of the innumerable decisions made by millions of different consumers and producers. Thus Macro economics is the study of aggregates.

A few areas that come under Macro Economics are:

- (i) National Income and National Output;
- (ii) The general price level and interest rates;
- (iii) Balance of trade and balance of payments;
- (iv) External value of currency;
- (v) The overall level of savings and investment; and
- (vi) The level of employment and rate of economic growth.

While Business Economics is basically concerned with Micro Economics, Macro economic analysis also has got an important role to play. Macroeconomics analyzes the background of economic conditions in an economy which will immensely influence the individual firm's performance as well as its decisions. Business firms need a thorough understanding of the macroeconomic environment in which they have to function. For example, knowledge regarding conditions of inflation and interest rates will be useful for the business economist in framing suitable policies. Moreover, the long-run trends in the business world are determined by the prevailing macroeconomic factors.

Having understood the meaning of Micro and Macro Economics, we shall examine the nature of Business Economics:

Nature of Business Economics

The economic world is extremely complex as there is a lot of interdependence among the decisions and activities of economic entities. Economic theories are hypothetical and simplistic in character as they

are based on economic models built on simplifying assumptions. Therefore, usually, there is a gap between the propositions of economic theory and happenings in the real economic world in which the managers make decisions. Business Economics enables application of economic logic and analytical tools to bridge the gap between theory and practice.

The following points will describe the nature of Business Economics:

- w **Business Economics is a Science: Science** is a systematized body of knowledge which establishes cause and effect relationships. Business Economics integrates the tools of decision sciences such as Mathematics, Statistics and Econometrics with Economic Theory to arrive at appropriate strategies for achieving the goals of the business enterprises. It follows scientific methods and empirically tests the validity of the results.
- w **Based on Micro Economics:** Business Economics is based largely on Micro-Economics. A business manager is usually concerned about achievement of the predetermined objectives of his organisation so as to ensure the long-term survival and profitable functioning of the organization. Since Business Economics is concerned more with the decision making problems of individual establishments, it relies heavily on the techniques of Microeconomics.
- w **Incorporates elements of Macro Analysis:** A business unit does not operate in a vacuum. It is affected by the external environment of the economy in which it operates such as, the general price level, income and employment levels in the economy and government policies with respect to taxation, interest rates, exchange rates, industries, prices, distribution, wages and regulation of monopolies. All these are components of Macroeconomics. A business manager must be acquainted with these and other macroeconomic variables, present as well as future, which may influence his business environment.
- w **Business Economics is an art** as it involves practical application of rules and principles for the attainment of set objectives.
- w **Use of Theory of Markets and Private Enterprises:** Business Economics largely uses the theory of markets and private enterprise. It uses the theory of the firm and resource allocation in the backdrop of a private enterprise economy.
- w **Pragmatic in Approach:** Micro-Economics is abstract and purely theoretical and analyses economic phenomena under unrealistic assumptions. In contrast, Business Economics is pragmatic in its approach as it tackles practical problems which the firms face in the real world.
- w **Interdisciplinary in nature:** Business Economics is interdisciplinary in nature as it incorporates tools from other disciplines such as Mathematics, Operations Research, Management Theory, Accounting, marketing, Finance, Statistics and Econometrics.
- w **Normative in Nature:** Economic theory has developed along two lines – positive and normative. A positive or pure science analyses cause and effect relationship between variables in an objective and scientific manner, but it does not involve any value judgement. In other words, it states 'what is' of the state of affairs and not what 'ought to be'. In other words, it is descriptive in nature in the sense that it describes the economic behaviour of individuals or society without prescriptions about the desirability or otherwise of such behaviour. As against this, a normative science involves value judgements. It is prescriptive in nature and suggests 'what should be' a particular course of action under given circumstances. Welfare considerations are embedded in normative science.

Business Economics is generally normative or prescriptive in nature. It suggests the application of economic principles with regard to policy formulation, decision-making and future planning. However, if the firms are to establish valid decision rules, they must thoroughly understand their environment.

This requires the study of positive or descriptive economic theory. Thus, Business Economics combines the essentials of normative and positive economic theory, the emphasis being more on the former than the latter.

SCOPE OF BUSINESS ECONOMICS

The scope of Business Economics is quite wide. It covers most of the practical problems a manager or a firm faces. There are two categories of business issues to which economic theories can be directly applied, namely:

1. Microeconomics applied to operational or internal Issues
2. Macroeconomics applied to environmental or external issues

Therefore, the scope of Business Economics may be discussed under the above two heads.

1. Microeconomics applied to operational or internal Issues

Operational issues include all those issues that arise within the organisation and fall within the purview and control of the management. These issues are internal in nature. Issues related to choice of business and its size, product decisions, technology and factor combinations, pricing and sales promotion, financing and management of investments and inventory are a few examples of operational issues. The following Microeconomic theories deal with most of these issues.

- w **Demand analysis and forecasting:** Demand analysis pertains to the behaviour of consumers in the market. It studies the nature of consumer preferences and the effect of changes in the determinants of demand such as, price of the commodity, consumers' income, prices of related commodities, consumer tastes and preferences etc.

Demand forecasting is the technique of predicting future demand for goods and services on the basis of the past behaviour of factors which affect demand. Accurate forecasting is essential for a firm to enable it to produce the required quantities at the right time and to arrange, well in advance, for the various factors of production viz., raw materials, labour, machines, equipment, buildings etc. Business Economics provides the manager with the scientific tools which assist him in forecasting demand.

- w **Production and Cost Analysis:** Production theory explains the relationship between inputs and output. A business economist has to decide on the optimum size of output, given the objectives of the firm. He has also to ensure that the firm is not incurring undue costs. Production analysis enables the firm to decide on the choice of appropriate technology and selection of least - cost input-mix to achieve technically efficient way of producing output, given the inputs. Cost analysis enables the firm to recognise the behaviour of costs when variables such as output, time period and size of plant change. The firm will be able to identify ways to maximize profits by producing the desired level of output at the minimum possible cost.

- w **Inventory Management:** Inventory management theories pertain to rules that firms can use to minimise the costs associated with maintaining inventory in the form of 'work-in-process,' 'raw materials,' and 'finished goods'. Inventory policies affect the profitability of the firm. Business economists use methods such as ABC analysis, simple simulation exercises and mathematical models to help the firm maintain optimum stock of inventories.

- w **Market Structure and Pricing Policies: Analysis** of the structure of the market provides information about the nature and extent of competition which the firms have to face. This helps in determining the

degree of market power (ability to determine prices) which the firm commands and the strategies to be followed in market management under the given competitive conditions such as, product design and marketing. Price theory explains how prices are determined under different kinds of market conditions and assists the firm in framing suitable price policies.

- w **Resource Allocation:** Business Economics, with the help of advanced tools such as linear programming, enables the firm to arrive at the best course of action for optimum utilisation of available resources.
- w **Theory of Capital and Investment Decisions:** For maximizing its profits, the firm has to carefully evaluate its investment decisions and carry out a sensible policy of capital allocation. Theories related to capital and investment provide scientific criteria for choice of investment projects and in assessment of the efficiency of capital. Business Economics supports decision making on allocation of scarce capital among competing uses of funds.
- w **Profit Analysis:** Profits are, most often, uncertain due to changing prices and market conditions. Profit theory guides the firm in the measurement and management of profits under conditions of uncertainty. Profit analysis is also immensely useful in future profit planning.
- w **Risk and Uncertainty Analysis:** Business firms generally operate under conditions of risk and uncertainty. Analysis of risks and uncertainties helps the business firm in arriving at efficient decisions and in formulating plans on the basis of past data, current information and future prediction.

2. Macroeconomics applied to environmental or external issues

Environmental factors have significant influence upon the functioning and performance of business. The major macro economic factors relate to:

- w the type of economic system
- w stage of business cycle
- w the general trends in national income, employment, prices, saving and investment.
- w Government's economic policies like industrial policy, competition policy, monetary and fiscal policy, price policy, foreign trade policy and globalization policies
- w working of financial sector and capital market
- w socio-economic organisations like trade unions, producer and consumer unions and cooperatives.
- w social and political environment.

Business decisions cannot be taken without considering these present and future environmental factors. As the management of the firm has no control over these factors, it should fine-tune its policies to minimise their adverse effects.

BASIC PROBLEMS OF AN ECONOMY

As mentioned in the last topic, all countries, without exceptions, face the problem of scarcity. Their resources (natural productive resources, man-made capital goods, consumer goods, money and time etc.) are limited and these resources have alternative uses. For example, coal can be used as a fuel for the production of industrial goods; it can be used for running trains, for domestic cooking purposes and for many other purposes. Similarly, financial resources can be used for many purposes.

Since human wants are unlimited and resources to fulfill them or satisfy these wants are limited and scarce so there must be the best possible use of resources to get maximum profit / output and welfare. The problem of scarcity of resources applies to individual as well as the society as a whole.

Every economic system, be it capitalist, socialist or mixed, has to deal with this central problem of scarcity of resources relative to the wants for them. Economic problems consist of making decisions regarding the goods to be produced and means to be used. This is generally called '**the central economic problem**'. The central economic problem is further divided into four basic economic problems. These are:

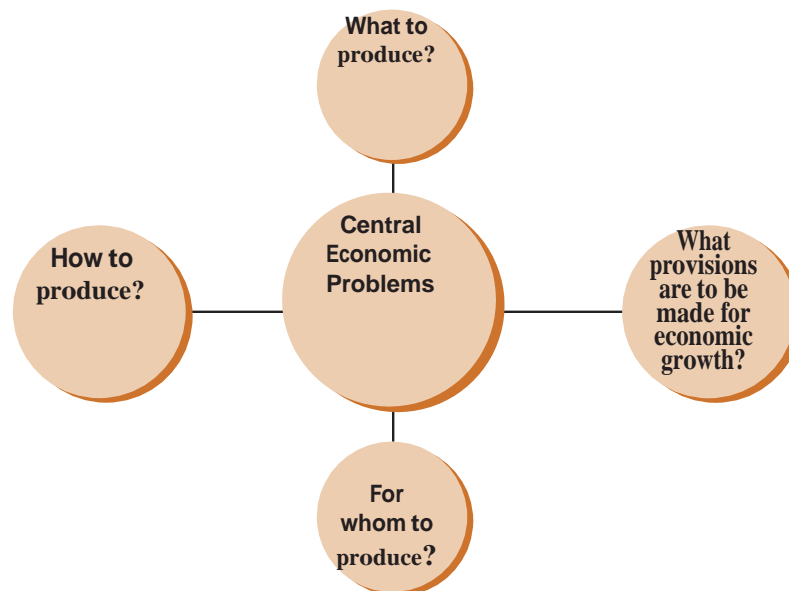
What to produce?

How to produce?

For whom to produce?

&

What provisions (if any) are to be made for economic growth?



What to produce?: Since the resources are limited, every society has to decide which goods and services should be produced and how many units of each good (or service) should be produced. An economy has to decide whether more guns should be produced or more butter should be produced; or whether more capital goods like machines, equipments, dams etc., will be produced or more consumer goods such as, cell phones will be produced. Not only the society has to decide about what goods are to be produced, it has also to decide in what quantities each of these goods would be produced. In a nutshell, a society must decide how much wheat, how many hospitals, how many schools, how many machines, how many meters of cloths etc. have to be produced.

- (ii) **How to produce?:** There are various alternative techniques of producing a commodity. For example, cotton cloth can be produced using handlooms, power looms or automatic looms. Production with handlooms involves use of more labour and production with automatic loom involves use of more machines and capital. A society has to decide whether it will produce cotton cloth using labour-intensive techniques or capital-intensive techniques. Likewise, for all goods and services, it has to decide whether to use labour-intensive techniques or capital-intensive techniques. Obviously, the choice would depend on the availability of different factors of production (i.e. labour and capital) and their relative prices. It is in the society's interest to use those techniques of production that make the best use of the available resources.
- (iii) **For whom to produce?:** Another important decision which a society has to take is 'for whom' it should produce. A society cannot satisfy each and every want of all the people. Therefore, it has to decide on who should get how much of the total output of goods and services, i.e. How the goods (and services) should be distributed among the members of the society. In other words, it has to decide about the shares of different people in the national cake of goods and services.
- (iv) **What provision should be made for economic growth?:** A society would not like to use all its scarce resources for current consumption only. This is because, if it uses all the resources for current consumption and no provision is made for future production, the society's production capacity would not increase. This implies that incomes or standards of living of the people would remain stagnant, and in future, the levels of living may actually decline. Therefore, a society has to decide how much saving and investment (i.e. how much sacrifice of current consumption) should be made for future progress.

We shall now examine the term 'economic system'. An economic system refers to the sum total of arrangements for the production and distribution of goods and services in a society. In short, it is defined as the sum of the total devices which give effect to economic choice. It includes various individuals and economic institutions.

You must be wondering how different economies of the world would be solving their central problems. In order to understand this, we divide all the economies into three broad classifications based on their mode of production, exchange, distribution and the role which their governments plays in economic activity. These are:

- Capitalist economy

- Socialist economy

- Mixed economy

CAPITALIST ECONOMY

Capitalism, is an economic system in which all means of production are owned and controlled by private individuals for profit. In short, private property is the mainstay of capitalism and profit motive is its driving force. Decisions of consumers and businesses determine economic activity.

Ideally, the government has a limited role in the management of the economic affairs under this system. Some examples of a capitalist economy may include U.S., U.K., Germany, Japan, Mexico, Singapore, etc. However many of them are not pure form of capitalism but show some features of being a capitalist economy. An economy is called capitalist or a free market economy or laissez-faire economy if it has the following characteristics:

- 1) *Right to private property*: The right to private property means that productive factors such as land, factories, machinery, mines etc. can be under private ownership. The owners of these factors are free to use them in any manner in which they like, as they desire. The government may, however, put some restrictions for the benefit of the society in general.
- 2) *Freedom of enterprise*: Each individual, whether consumer, producer or resource owner, is free to engage in any type of economic activity. For example, a producer is free to set up any type of firm and produce goods and services of his choice.
- 3) *Freedom of economic choice*: All individuals are free to make their economic choices regarding consumption, work, production, exchange etc.
- 4) *Profit motive*: Profit motive is the driving force in a free enterprise economy and directs all economic activities. Desire for profits induces entrepreneurs to organize production so as to earn maximum profits.
- 5) *Consumer Sovereignty*: Consumer is the king under capitalism. Consumer sovereignty means that buyers ultimately determine which goods and services will be produced and in what quantities. Consumers have unbridled freedom to choose the goods and services which they would consume. Therefore, producers have to produce goods and services which are preferred by the consumers. In other words, based on the purchases they make, consumers decide how the economy's limited resources are allocated.
- 6) *Competition*: Competition is the most important feature of the capitalist economy. Competition brings out the best among buyers and sellers and results in efficient use of resources.
- 7) *Absence of Government Interference*: A purely capitalist economy is not centrally planned, controlled or regulated by the government. In this system, all economic decisions and activities are guided by self interest and price mechanism which operates automatically without any direction and control by the governmental authorities.

Merits of Capitalist economy:

1. Capitalism is self regulating and works automatically through price mechanism. There is no need of incurring costs for collecting and processing of information and for formulating, implementing and monitoring policies.
2. The existence of private property and the driving force of profit motive result in greater efficiency and incentive to work.
3. The process of economic growth is likely to be faster under capitalism. This is because the investors try to invest in only those projects which are economically feasible.
4. Resources are used in activities in which they are most productive. This results in optimum allocation of the available productive resources of the economy.
5. There is usually high degree of operative efficiency under the capitalist system.
6. Cost of production is minimized as every producer tries to maximize his profit by employing methods of production which are cost-effective.
7. Capitalist system offer incentives for efficient economic decisions and their implementation.
8. Consumers are benefitted as competition forces producers to bring in a large variety of good quality

products at reasonable prices. This, along with freedom of choice, ensures maximum satisfaction to consumers. This also results in higher standard of living.

9. Capitalism offers incentives for innovation and technological progress. The country as a whole benefits through growth of business talents, development of research, etc.
10. Capitalism preserves fundamental rights such as right to freedom and right to private property. Therefore, the participants enjoy maximum amount of autonomy and freedom.
11. Capitalism rewards men of initiative and enterprise and punishes the imprudent and inefficient.
12. Capitalism usually functions in a democratic framework.
13. The capitalist set up encourages enterprise and risk taking and emergence of an entrepreneurial class willing to take risks.

Demerits of Capitalism

1. There is vast economic inequality and social injustice under capitalism. Inequalities reduce the aggregate economic welfare of the society as a whole and split the society into two classes namely the 'haves' and the 'have-nots', sowing the seeds of social unrest and class conflict.
2. Under capitalism, there is precedence of property rights over human rights.
3. Economic inequalities lead to wide differences in economic opportunities and perpetuate unfairness in the society.
4. The capitalist system ignores human welfare because, under a capitalist set up, the aim is profit and not the welfare of the people.
5. Due to income inequality, the pattern of demand does not represent the real needs of the society.
6. Exploitation of labour is common under capitalism. Very often this leads to strikes and lock outs. Moreover, there is no security of employment. This makes workers more vulnerable.
7. Consumer sovereignty is a myth as consumers often become victims of exploitation. Excessive competition and profit motive work against consumer welfare.
8. There is misallocation of resources as resources will move into the production of luxury goods. Less wage goods will be produced on account of their lower profitability.
9. Less of merit goods like education and health care will be produced. On the other hand, a number of goods and services which are positively harmful to the society will be produced as they are more profitable.
10. Due to unplanned production, economic instability in terms of over production, economic depression, unemployment etc., is very common under capitalism. These result in a lot of human misery.
11. There is enormous waste of productive resources as firms spend huge amounts of money on advertisement and sales promotion activities.
12. Capitalism leads to the formation of monopolies as large firms may be able to drive out small ones by fair or foul means.
13. Excessive materialism as well as conspicuous and unethical consumption lead to environmental degradation.

SOCIALIST ECONOMY

The concept of socialist economy was discovered by Karl Marx and Frederic Engels in their work 'The Communist Manifesto' published in 1848. In this economy, the material means of production i.e. factories, capital, mines etc. are owned by the whole community represented by the State. All members are entitled to get benefit from the fruits of such socialised planned production on the basis of equal rights. A socialist economy is also called as "Command Economy" or a "Centrally Planned Economy". Here, the resources are allocated according to the commands of a central planning authority and therefore, market forces have no role in the allocation of resources. Under a socialist economy, production and distribution of goods are aimed at maximizing the welfare of the community as a whole.

Some important characteristics of this economy are:

- (i) *Collective Ownership*: There is collective ownership of all means of production except small farms, workshops and trading firms which may remain in private hands. As a result of social ownership, profit-motive and self-interest are not the driving forces of economic activity as it is in the case of a market economy. The resources are used to achieve certain socio-economic objectives.
- (ii) *Economic planning*: There is a Central Planning Authority to set and accomplish socio-economic goals; that is why it is called a centrally planned economy. The major economic decisions, such as what to produce, when and how much to produce, etc., are taken by the central planning authority.
- (iii) *Absence of Consumer Choice*: Freedom from hunger is guaranteed, but consumers' sovereignty gets restricted by selective production of goods. The range of choice is limited by planned production. However, within that range, an individual is free to choose what he likes most.

The right to work is guaranteed, but the choice of occupation gets restricted because these are determined by the central planning authority on the basis of certain socio-economic goals before the nation.

- (iv) *Relatively Equal Income Distribution*: A relative equality of income is an important feature of Socialism. Among other things, differences in income and wealth are narrowed down by lack of opportunities to accumulate private capital. Educational and other facilities are enjoyed more or less equally; thus the basic causes of inequalities are removed.
- (v) *Minimum role of Price Mechanism or Market forces*: Price mechanism exists in a socialist economy; but it has only a secondary role, e.g., to secure the disposal of accumulated stocks. Since allocation of productive resources is done according to a predetermined plan, the price mechanism as such does not influence these decisions. In the absence of the profit motive, price mechanism loses its predominant role in economic decisions. The prices prevailing under socialism are 'administered prices' which are set by the central planning authority on the basis of socio-economic objectives.
- (vi) *Absence of Competition*: Since the state is the sole entrepreneur, there is absence of competition under socialism.

The erstwhile U.S.S.R. is an example of socialist economy. In today's world there is no country which is purely socialist. North Korea, the world's most totalitarian state, is another prominent example of a socialist economy. Other examples include China and Cuba.

Merits of Socialism

1. Equitable distribution of wealth and income and provision of equal opportunities for all help to maintain economic and social justice.
2. Rapid and balanced economic development is possible in a socialist economy as the central planning authority coordinates all resources in an efficient manner according to set priorities.
3. Socialist economy is a planned economy. In a socialistic economy, there will be better utilization of resources and it ensures maximum production. Wastes of all kinds are avoided through strict economic planning. Since competition is absent, there is no wastage of resources on advertisement and sales promotion.

4. In a planned economy, unemployment is minimised, business fluctuations are eliminated and stability is brought about and maintained.
5. The helps the community to develop a co-operative mentality and avoids class war. This, along with equality, ensures welfare of the society.
6. Socialism ensures right to work and minimum standard of living to all people.
7. Under socialism, the labourers and consumers are protected from exploitation by the employers and monopolies respectively.
8. There is provision of comprehensive social security under socialism and this makes citizens feel secure.

Demerits of Socialism

1. Socialism involves the predominance of bureaucracy and the resulting inefficiency and delays. Moreover, there may also be corruption, red tapism, favouritism, etc.
2. It restricts the freedom of individuals as there is state ownership of the material means of production and state direction and control of nearly all economic activity.
3. Socialism takes away the basic rights such as the right of private property.
4. It will not provide necessary incentives to hard work in the form of profit.
5. Administered prices are not determined by the forces of the market on the basis of negotiations between the buyers and the sellers. There is no proper basis for cost calculation. In the absence of such practice, the most economic and scientific allocation of resources and the efficient functioning of the economic system are impossible.
6. State monopolies created by socialism will sometimes become uncontrollable. This will be more dangerous than the private monopolies under capitalism.
7. Under socialism, the consumers have no freedom of choice. Therefore, what the state produces has to be accepted by the consumers.
8. No importance is given to personal efficiency and productivity. Labourers are not rewarded according to their efficiency. This acts as a disincentive to work.
9. The extreme form of socialism is not at all practicable.

MIXED ECONOMY

The mixed economic system depends on both markets and governments for allocation of resources. In fact, every economy in the real world makes use of both **markets and governments** and therefore is mixed economy in its nature. In a mixed economy, the aim is to develop a system which tries to include the best features of both the controlled economy and the market economy while excluding the demerits of both. It appreciates the advantages of private enterprise and private property with their emphasis on self-interest and profit motive. Vast economic development of England, the USA etc. is due to private enterprise. At the same time, it is noticed that private property, profit motive and self-interest of the market economy may not promote the interests of the community as a whole and as such, the Government should remove these defects of private enterprise. For this purpose, the Government itself must run important and selected industries and eliminate the free play of profit motive and self-interest. Private enterprise which has its own significance is also allowed to play a positive role in a mixed economy. However, the state imposes necessary measures to control and to regulate the private sector to ensure that they function in accordance with the welfare objectives of the nation.

Features of mixed economy

- (i) *Co-existence of private and public sector:* The first important feature of a mixed economy is the co-existence of both private and public enterprise.

In fact, in a mixed economy, there are three sectors of industries:

- (a) *Private sector:* Production and distribution in this sector are managed and controlled by private individuals and groups. Industries in this sector are based on self-interest and profit motive. The system of private property exists and personal initiative is given full scope. However, private enterprise may be regulated by the government directly and/or indirectly by a number of policy instruments.
- (b) *Public sector:* Industries in this sector are not primarily profit-oriented, but are set up by the State for the welfare of the community.
- (c) *Combined sector:* A sector in which both the government and the private enterprises have equal access, and join hands to produce commodities and services, leading to the establishment of joint sectors.

Mixed economy has the following merits available to capitalist economies and socialist economies.

1. Economic freedom and existence of private property which ensures incentive to work and capital formation.
2. Price mechanism and competition forces operating in the private sector promoting efficient decisions and better resource allocation.
3. Consumers are benefitted through consumers' sovereignty and freedom of choice.
4. Appropriate incentives for innovation and technological progress.
5. Encourages enterprise and risk taking.
6. Advantages of economic planning and rapid economic development on the basis of plan priorities.
7. Comparatively greater economic and social equality and freedom from exploitation due to greater state participation and direction of economic activities.
8. Disadvantages of cut-throat competition averted through government's legislative measures such as environment and labour regulations.

However, mixed economy is not always a 'golden path' between capitalism and socialism. It suffers from substantial uncertainties. Mixed economy is characterised by excessive controls by the state resulting in reduced incentives and constrained growth of the private sector, poor implementation of planning, higher rates of taxation, lack of efficiency, corruption, wastage of resources, undue delays in economic decisions and poor performance of the public sector. Moreover, it is very difficult to maintain a proper balance between the public and private sectors. In the absence of strong governmental initiatives, the private sector is likely to grow disproportionately. The system would then resemble capitalism with all its disadvantages.

FREE ENTERPRISE ECONOMY:- Free enterprise economy have a large similarities with **Capitalist economy**. In free economy an individual is free to engage in any economic activity as per his own choice. He is free to set up any firm to produce goods. It is also known as market based economy. It means free flow of goods in the market as per demand and supply of the product. This type of economy has a tendency to naturally balance itself. Laws of demand and supply directs the production of goods and services. Supply includes natural resources, capital and labour. Demand includes purchases by consumers, businessmen and the government.

Features of free enterprise economy.

- 1) **Right to private property:** The right to private property means that productive factors such as

land, factories, machinery, mines etc. can be under private ownership. The owners of these factors are free to use them in any manner in which they like and bequeath it as they desire. The government may, however, put some restrictions for the benefit of the society in general.

- 2) **Freedom of enterprise**: Each individual, whether consumer, producer or resource owner, is free to engage in any type of economic activity. For example, a producer is free to set up any type of firm and produce goods and services of his choice.
- 3) *Freedom of economic choice*: All individuals are free to make their economic choices regarding consumption, work, production, exchange etc.
- 4) **Profit motive**: Profit motive is the driving force in a free enterprise economy and directs all economic activities. Desire for profits induces entrepreneurs to organize production so as to earn maximum profits.
- 5) **Consumer Sovereignty**: Consumer is the king under capitalism. Consumer sovereignty means that buyers ultimately determine which goods and services will be produced and in what quantities. Consumers have unbridled freedom to choose the goods and services which they would consume. Therefore, producers have to produce goods and services which are preferred by the consumers. In other words, based on the purchases they make, consumers decide how the economy's limited resources are allocated.
- 6) **Competition**: Competition is the most important feature of the capitalist economy. Competition brings out the best among buyers and sellers and results in efficient use of resources.
- 7) **Absence of Government Interference**: A purely capitalist economy is not centrally planned, controlled or regulated by the government. In this system, all economic decisions and activities are guided by self interest and price mechanism which operates automatically without any direction and control by the governmental authorities.

How do capitalist economies solve their central problems?

A capitalist economy has no central planning authority to decide what, how and for whom to produce. In the absence of any central authority, it looks like a miracle as to how such an economy functions. If the consumers want cars and producers choose to make cloth and workers choose to work for the furniture industry, there will be total confusion and chaos in the country. However, this does not happen in a capitalist economy. Such an economy uses the impersonal forces of market demand and supply or the price mechanism to solve its central problems.

The aim of an entrepreneur is to earn as much profits as possible. This causes businessmen to compete with one another to produce those goods which consumers wish to buy. Thus, if consumers want more cars, there will be an increase in the demand for cars and as a result their prices will increase. A rise in the price of cars, costs remaining the same, will lead to more profits. This will induce producers to produce more cars. On the other hand, if the consumers' demand for cloth decreases, its price would fall and profits would go down. Therefore, business firms have less incentive to produce cloth and less of cloth will be produced. Thus, more of cars and less cloth will be produced in such an economy. In a capitalist economy (like the USA, UK and Germany) the question regarding what to produce is ultimately decided by consumers who show their preferences by spending on the goods which they want.

Deciding 'what to produce' An entrepreneur will produce goods and services choosing that technique of production which renders his cost of production minimum. If labour is relatively cheap, he will use labour-intensive method and if labour is relatively costlier he will use capital-intensive method. Thus, the relative prices of factors of production help in deciding how to produce.

Deciding 'for whom to produce': Goods and services in a capitalist economy will be produced for those who have buying capacity. The buying capacity of an individual depends upon his income. How much income he

will be able to make depends not only on the amount of work he does and the prices of the factors he owns, but also on how much property he owns. Higher the income, higher will be his buying capacity and higher will be his demand for goods in general.

Deciding about consumption, saving and investment: Consumption and savings are done by consumers and investments are done by entrepreneurs. Consumers' savings, among other factors, are governed by the rate of interest prevailing in the market. Higher the interest rates, higher will be the savings. Investment decisions depend upon the rate of return on capital. The greater the profit expectation (i.e. the return on capital), the greater will be the investment in a capitalist economy. The rate of interest on savings and the rate of return on capital are nothing but the prices of capital.

NATURE OF HUMAN WANTS

Since the resources are limited, we have to choose between the urgent wants and the not so urgent wants.

1. Wants are unlimited in number. They are never completely satisfied.
2. Wants differ in intensity. Some are urgent, others are felt less intensely.
3. Each want is satiable.
4. Wants are competitive. They compete each other for satisfaction because resources are scarce to satisfy all wants.
5. Wants are complementary. Some wants can be satisfied only by using more than one good or group of goods.
6. Wants are alternative.
7. Wants are subjective and relative.
8. Wants vary with time, place, and person.
9. Some wants recur again whereas others do not occur again and again.
10. Wants may become habits and customs.
11. Wants are affected by income, taste, fashion, advertisements and social customs.
12. Wants arise from multiple causes such as natural instincts, social obligation and individual's economic and social status.

Necessaries

Necessaries are those which are essential for living. Necessaries are further sub-divided into necessities for life or existence, necessities for efficiency and conventional necessities. Necessaries for life are things necessary to meet the minimum physiological needs for the maintenance of life such as minimum amount of food, clothing and shelter. Man requires something more than the necessities of life to maintain longevity, energy and efficiency of work, such as nourishing food, adequate clothing, clean water, comfortable dwelling, education, recreation etc. These are necessities for efficiency. Conventional necessities arise either due to pressure of habit or due to compelling social customs and conventions. They are not necessary either for existence or for efficiency.

Comforts

While necessities make life possible comforts make life comfortable and satisfying. Comforts are less urgent than necessities. Tasty and wholesome food, good house, clothes that suit different occasions, audio-visual and labour saving equipments etc. make life more comfortable.

Luxuries

Luxuries are those wants which are superfluous and expensive. They are not essential for living. Items such as expensive clothing, exclusive motor cars, classy furniture, goods used for vanity etc fall under this category.

The above categorization is not rigid as a thing which is a comfort or luxury for one person or at one point of time may become a necessity for another person or at another point of time. As all of us are aware, the things which were considered luxuries in the past have become comforts and necessities today.

MEANING OF UTILITY

MEANING OF UTILITY – Utility is a want satisfying power or quality in a commodity.

People purchase only those goods and services which have the capacity to satisfy their wants. When consumer buys a commodity he derives some benefit in the form of satisfaction of a certain want. This benefit or satisfaction of a want by consumer is known as utility. Utility is a subjective & relative term. Utility is a cardinal concept it means utility can be measured.

Definition of Utility given by **Stanly Javons** “ Utility is something experienced by the consumer about the given commodities significance relating to its want satisfying power”

Utility hypothesis forms the basis of the theory of consumer behaviour. From time to time, different theories have been advanced to explain consumer behaviour and thus to explain his demand for the product. Two important theories are :

- (i) Marginal Utility Analysis propounded by Marshall, and
- (ii) Indifference Curve Analysis propounded by Hicks and Allen.

Total utility (T.U.) : Assuming that utility is measurable and additive, total utility may be defined as the sum of utility derived from different units of a commodity consumed by a consumer. Total utility is the sum of marginal utilities derived from the consumption of different units.

Therefore total utility is the sum of total/agreegate satisfaction experienced by a consumer from all units of commodity taken together in consumption at a time.

$$TU = F(Q_x) / \Delta TU_x \div DQ_x \geq 0$$

Δ = small change

x = increasing function of commodities quantity

TU = Total Utility of commodity x

F = functional relationship

Q_x = quantity of commodity x

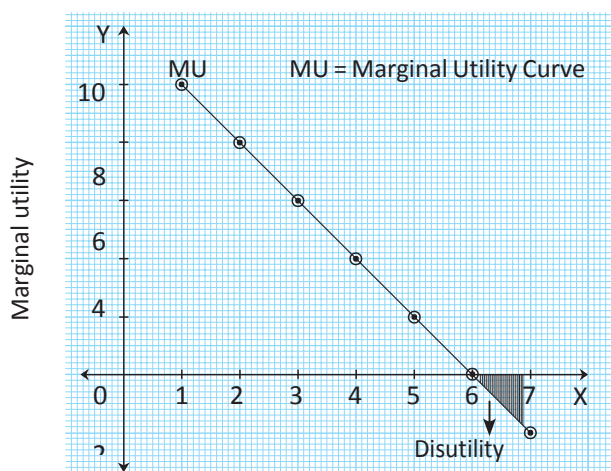
Total utility is a direct function of a number of units of a commodity in a consideration.

Marginal utility(M.U.) : It is the addition made to total utility by the consumption of an additional unit of a commodity. In other words, it is the extra utility obtained from an extra unit of any commodity consumed or acquired together.

Marginal utility = addition made to the total utility by the addition as the is increased by one more unit of a commodity. M.U, means the successive increment made in T.U. made by taking separately each unit of a commodity in a successive manner as an addition to the total stock.

The table shows that marginal utility keeps on diminishing with increase in consumption,

further it becomes zero and then negative. Units of x	Marginal Utility (MU)
1	10
2	8
3	6
4	4
5	2
6	0
7	-2



Features of Utility :

Following are the features of utility :

- I) **Relative concept** : Utility is related to time and place. It varies from time to time and place to place. For example, (i) woollen clothes have a greater utility in the winter.
ii) sand has greater utility at the construction site than at the sea shore.
- II) **Subjective concept** : It is a psychological concept. Utility differs from person to person. This is due to the differences in taste, preferences, likes, dislikes, nature, habits, profession etc. For example, stethoscope has utility to a doctor but not to a layman.
- III) **Utility differs from usefulness** : Utility is the capacity of a commodity to satisfy human wants, whereas usefulness indicates value in use of the commodity. For example, milk has both utility as well as usefulness to a consumer, while liquor has utility only to an addict, but has no usefulness.
- IV) **Ethically neutral concept** : The concept of utility has no ethical consideration. It is a morally colourless concept. The commodity should satisfy any want of a person without consideration of what is good and bad, desirable and Undesirable. For example a knife has a utility to cut fruits and vegetables as well as it can be used to harm someone. Both wants are of different nature but are satisfied by the same commodity. Thus utility is ethically neutral.

- V) **Utility differs from pleasure :** A commodity may possess utility but it may not give any pleasure to the consumer. For example, injection for a patient has utility because it cures the ailment but it hardly gives any enjoyment or pleasure to him
- VI) **Utility differs from satisfaction :** Utility is a cause of consumption, satisfaction is the end result of consumption. They are interrelated but still different concepts. For example, a thirsty person drinks a glass of water since water has the capacity to satisfy thirst. Utility of water is the cause of consumption and the satisfaction derived is the end result of consumption.
- VII) **Measurement of utility is hypothetical :** Utility is an abstract concept. Cardinal or numerical measurement of utility is not possible. For example, a thirsty person after drinking water, may derive higher or lower level of utility. Thus, utility can only be experienced and found either positive, zero or negative. Negative utility is called disutility.
- VIII) **Utility is multi-purpose :** A commodity can satisfy the want of more than one person, it can also be put to several uses. For example, electricity can be used to serve many purposes and for many people at some point of time.
- IX) **Utility depends on the intensity of want :** Utility depends on the intensity of a want. More intense the want, greater will be the utility. As and when the urgency of want declines, utility diminishes. For example, a hungry person finds more utility in food, than a person who is not hungry.
- X) **Utility is the basis of demand :** A person will demand a commodity only if it gives utility to him. For example, a sick person has utility in medicines hence, he demands medicines.

Types of Utility : (Not a part of your syllabus but just to make concept of utility clear)

Following are some of the different types of utility

- 1) **Form utility :** When utility is created due to a change in the shape or structure of an existing material, it is called form utility. For example, toys made of clay, furniture etc.
 - 2) **Place utility :** When utility of a commodity increases due to a change in its place, it is called place utilities. For example, woollen clothes have more utility at cold places than at warm places. Transport creates place utility.
 - 3) **Service utility :** Service utility arises when personal services are rendered by various professionals. For example, services of doctors, teachers, lawyers etc.
 - 4) **Knowledge utility :** When a consumer acquires knowledge about a particular product, it is called knowledge utility. For example, utility of a mobile phone or a computer increases when a person knows about its various functions.
 - 1) **Possession utility :** Possession utility arises when the ownership of goods is transferred from one person to another. For example, transfer of goods from the sellers to the buyers.
- Time utility :** When the utility of a commodity increases with a change in its time of utilization, it is called time utility. For example, a student has more utility for text books during examinations than in the vacations. Time utility is also observed when goods are stored and used at the time of scarcity. For example, Bloodbank

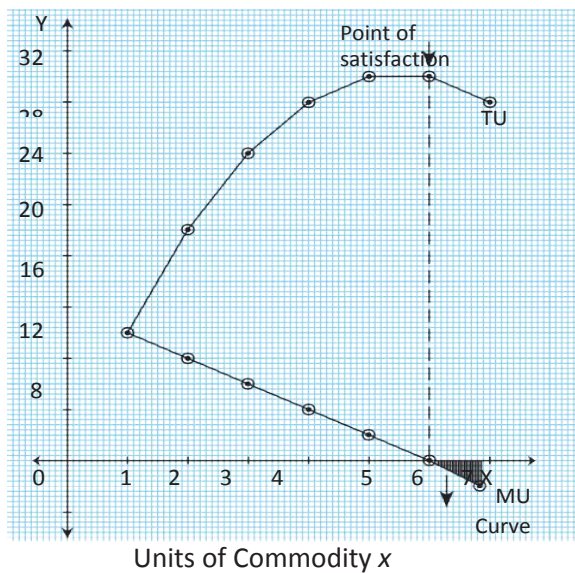
Relationship between Total Utility and Marginal Utility (Diminishing Marginal Utility)

Marginal utility derived from various units of a commodity and its total utility are interrelated. This can be easily followed from the hypothetical example given in the table 2.1

Table 2.1 Utility Schedule

Units of x	Total utility	Marginal utility
1	10	10
2	18	8
3	24	6
4	28	4
5	30	2
6	30	0
7	28	-2

Table 2.1 explains the relationship between total utility and marginal utility. On the basis of Table 2.1 Total utility and Marginal Utility curves (TU and MU) can be derived with the following diagram.



IN MARGINAL UTILITY AND TOTAL UTILITY CURVE the point after 6th unit the utility goes on diminishing rate because the point of satisfaction at 6th on x axis. And @ 7th unit utility is diminishing (dissatisfaction) marginal utility

X axis measures the units of the commodity consumed while

Y axis indicates the figures of total and marginal utility.

Figure shows that total utility curve slopes upwards whereas marginal utility curve slopes downwards. Marginal utility curve shows zero and negative levels of marginal utility whereas total utility curve shows maximum and constant total utility level.

- 1) Total utility and marginal utility of the very first unit of x consumed, are the same.
- 2) As the consumer consumes further units of x, the total utility increases at a diminishing rate and marginal utility goes on diminishing. (TU \square MU \square)
- 3) At a particular stage, total utility reaches to its maximum and remains constant whereas marginal utility becomes zero. This is called the point of satiety. (TU highest, MU = 0)
- 4) After this point, any additional unit consumed further results in a decline in the total utility, while marginal utility becomes negative. (TU \square negative)
- 5) After reaching a point of satisfy, a rational consumer should stop consumption since the maximum limit of satisfaction is reached and there is no addition to the total utility by any further increase in the stock of commodity.
- 6) Consumption beyond the point of satisfy transforms satisfaction into dissatisfaction. In other words, a consumer starts experiencing ill effects of consumption.

Law of Diminishing Marginal Utility (DMU) : Introduction :

This law was first proposed by Prof. Gossen, but was discussed in detail by Prof. Alfred Marshall in his book 'Principles of Economics' published in 1890. Marshall in his book 'Principles of Economics' published in 1890. The law of diminishing marginal utility is universal in character. It is based on the common consumer behaviour that utility derived diminishes with the reduction in the intensity of a want.

Statement of the Law :

According to Prof. Alfred Marshall, "Other things remaining constant, the additional benefit which a person derives from a given increase in his stock of a thing, diminishes with every increase in the stock that he already has."

In other words, marginal utility that any consumer derives from successive units of a particular commodity goes on diminishing as his or her total consumption of that commodity increases. In short, the more of a thing you have, the less you want to have more of it

Criticisms of the Law :

The law of diminishing marginal utility is criticised on the following grounds.

- 1) **Unrealistic assumptions** : The law of diminishing marginal utility is based upon various assumptions like homogeneity, continuity, constancy, rationality etc. but in reality it is difficult to fulfil all these conditions at a point of time.
- 2) **Cardinal measurement** : The law assumes that utility can be expressed cardinally so it can be added, compared and presented through a schedule. In reality cardinal measurement of utility is not possible because utility is a psychological concept.
- 3) **Indivisible goods** : The law is not applicable to indivisible and bulky goods like refrigerator, car, TV sets etc. which are normally purchased in single unit at a time.
- 4) **Constant marginal utility of money** : The law assumes that MU of each unit of money remains constant.

However, critics argue that MU of money differs from person to person. It is influenced by changes in prices, stock of money etc.

- 5) **A single want** : The law is restricted to the satisfaction of a single want at a point of time. However, in reality, a man has to satisfy many wants at a point of time.
- 6) **Homogenous units**: The different units consumed should be identical in all respects. The habit, taste, temperament and income of the consumer also should remain unchanged.
- 7) **The Law fails in the case of prestigious goods**: The law may not apply to articles like gold, cash, diamonds etc. where a greater quantity may increase the utility rather than diminish it. It also fails to apply in the case of hobbies, alcohol, cigarettes, rare collections etc.

Difference between Cardinal Utility & Ordinal Utility

SN	CARDINAL UTILITY	ORDINAL UTILITY
1. Discovered by	In the year 1890 economist Alfred Marshall formulated Marginal Utility theory to explain logical basis of Law of Demand	In 1934 economist Hicks & Allen developed the theory of ordinal utility which is also known as indifference curve analysis.
2. Meaning	Cardinal utility means where the satisfaction received by consumer by consumption of a commodity can be expressed and measured in money.	Whereas in ordinal utility amount of satisfaction is not precise or measurable but utility is an ordinal approach.
3. Income Effect	Marshall assumes M.U. of money and ignores the income effect in case of change in price of commodity.	As per Hicks opinion change in income of consumer will effect on the satisfaction of the consumer.
4. Concept of goods	Marshall concept of M.U. was with reference to single unit commodity, i.e. with the intake of extra commodity Marginal Utility diminishes..	Hicks concept of MRS (marginal rate of substitution) was with reference to 2 goods X & Y ($MRS=XY$)
5. Measurement	Marginal Utility i.e. cardinal approach says that utility can be measured in terms of money and it has quantitative approach.	While indifference curve analysis says that utility can be measured in ranks and it has qualitative approach.
6. Giffen goods Paradox	Marshall theory works only in case of normal goods theory.	Whereas Hicks theory explains adequacy about Giffen paradox and possible in case of normal and inferior and giffen goods.