UNIT-1

INTRODUCTION TO MANAGERIAL ECONOMICS

Introduction to Economics

Economics is a study of human activity both at individual and national level. Any activity involved in efforts aimed at earning money and spending this money to satisfy our wants such as food, Clothing, shelter, and others are called "Economic activities".

It was only during the eighteenth century that Adam Smith, the Father of Economics, defined economics as the study of nature and uses of national wealth'.

Definition:

Dr. Alfred Marshall, one of the greatest economists of the nineteenth century, writes "Economics is a study of man's actions in the ordinary business of life: it enquires how he gets his income and how he uses it".

Prof. Lionel Robbins defined Economics as "the science, which studies human behavior as a relationship between ends and scarce means which have alternative uses".

Microeconomics

- The study of an individual consumer or a firm is called microeconomics.
- Micro means 'one millionth'.
- Microeconomics deals with behavior and problems of single individual and of micro organization.
- It is concerned with the application of the concepts such as price theory, Law of Demand and theories of market structure and so on.

Macroeconomics:

- The study of 'aggregate' or total level of economic activity in a country is called ***macroeconomics.***
- It studies the flow of economics resources or factors of production (such as land, labor, capital, organization and technology) from the resource owner to the business firms and then from the business firms to the households.
- It is concerned with the level of employment in the economy.
- It discusses aggregate consumption, aggregate investment, price level, and payment, theories of employment, and so on.

MANAGERIAL ECONOMICS

Managerial Economics refers to the firm's decision making process. It could be also interpreted as "Economics of Management" or " Industrial economics " or "Business economics".

Nature of managerial Economics:

1. ***Close to microeconomics*** :
   Managerial economics is concerned with finding the solutions for different managerial problems of a particular firm. Thus, it is more close to microeconomics.

2. ***Operates against the backdrop of macroeconomics*** :
   The macroeconomics conditions of the economy are also seen as limiting factors for the firm to operate. In other words, the managerial economist has to be aware of the limits set by the macroeconomics conditions such as government industrial policy, inflation and so on.

3. Normative statements:

- A normative statement usually includes or implies the words 'ought' or 'should'. They reflect people's moral attitudes and are expressions of what a team of people ought to do
- . Such statement are based on value judgments and express views of what is 'good' or 'bad', 'right' or ' wrong'.
- One problem with normative statements is that they cannot to verify by looking at the facts, because they mostly deal with the future. Disagreements about such statements are usually settled by voting on them.

4. Prescriptive actions:

- Prescriptive action is goal oriented.
- Given a problem and the objectives of the firm, it suggests the course of action from the available alternatives for optimal solution.
- It also explains whether the concept can be applied in a given context on not. For instance, the fact that variable costs are marginal costs can be used to judge the feasibility of an export order.

5. Applied in nature:

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

6. Offers scope to evaluate each alternative:

- Managerial economics provides an opportunity to evaluate each alternative in terms of its costs and revenue.
- The managerial economist can decide which is the better alternative to maximize the profits for the firm.

7. Interdisciplinary:

- The contents, tools and techniques of managerial economics are drawn from different subjects such as economics, management, mathematics, statistics, accountancy, psychology, organizational behavior, sociology and etc.

Scope of Managerial Economics:

Managerial economics refers to its area of study. Managerial economics, Provides management with a strategic planning tool that can be used to get a clear perspective of the way the business world works and what can be done to maintain profitability in an ever-changing environment.

. Managerial economics is primarily concerned with the application of economic principles and theories to five types of resource decisions made by all types of business organizations.

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

The scope of managerial economics covers two areas of decision making

- Operational or Internal issues
- Environmental or External issues

A. OPERATIONAL ISSUES:

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

1. Theory of demand and Demand Forecasting
2. Pricing and Competitive strategy
3. Production cost analysis
4. Resource allocation
5. Profit analysis
6. Capital or Investment analysis
7. Strategic planning

1. Demand Analyses and Forecasting:

- Demand analysis also highlights for factors, which influence the demand for a product. This helps to manipulate demand. Thus demand analysis studies not only the price elasticity but also income elasticity, cross elasticity as well as the influence of advertising expenditure with the advent of computers.
- Demand forecasting has become an increasingly important function of managerial economics. A firm can survive only if it is able to the demand for its product at the right time, within the right quantity. Understanding the basic concepts of demand is essential for demand forecasting

2. Pricing and competitive strategy:

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

3. Production and cost analysis:

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

4. Resource Allocation:

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

5. Profit analysis:

- Profit making is the major goal of firms. There are several constraints here an account of competition from other products, changing input prices and changing business environment hence in spite of careful planning, there is always certain risk involved.

- Managerial economics deals with techniques of averting of minimizing risks. Profit theory guides in the measurement and management of profit, in calculating the pure return on capital, besides future profit planning.

6. Capital or investment analyses:

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

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

7. Strategic planning:

- Strategic planning provides a long-term goals and objectives and selects the strategies to achieve the same. . The perspective of strategic planning is global.
- strategic planning has given rise to be new area of study called corporate economics.

B. Environmental or External Issues:

. They refer to general economic, social and political atmosphere within which the firm operates. A study of economic environment should include:

The type of economic system in the country.

a. The general trends in production, employment, income, prices, saving and investment.
b. Trends in the working of financial institutions like banks, financial corporations, insurance companies
c. Magnitude and trends in foreign trade;
d. Trends in labour and capital markets;
e. Government's economic policies viz. industrial policy monetary policy, fiscal policy, price policy etc.

- The social environment refers to social structure as well as social organization like trade unions, consumer's co-operative etc.

- The Political environment refers to the nature of state activity, chiefly states' attitude towards private business, political stability etc.
- The environmental issues highlight the social objective of a firm i.e.; the firm owes a responsibility to the society. Private gains of the firm alone cannot be the goal.

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:

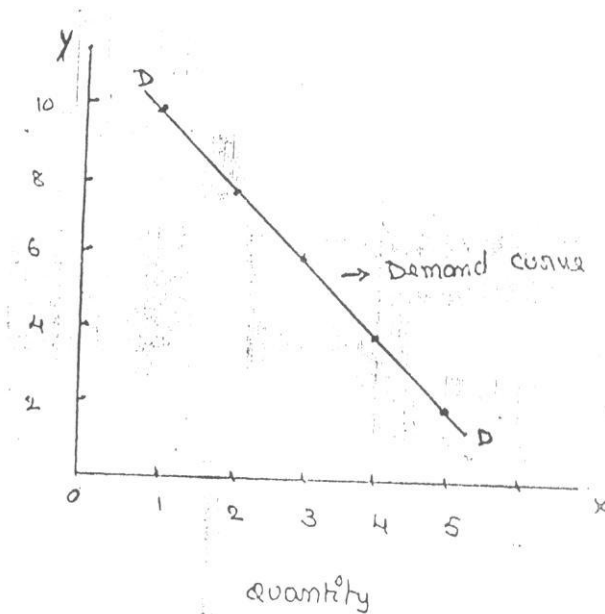
Law of demand shows the relation between price and quantity demanded of a commodity in the market. In the words of Marshall, "the amount demand increases with a fall in price and diminishes with a rise in price".

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

Demand Schedule.

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

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



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

Assumptions:

Law is demand is based on certain assumptions

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

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.

- ***.Climate and weather:***

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

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.

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

There are five cases of price elasticity of demand

- Perfectly elastic demand
- Perfectly inelastic
- Relatively elastic demand
- Relatively inelastic demand
- Unitary demand

2. Income elasticity of demand:

Income elasticity of demand shows the change in quantity demanded as a result of a change in income. Income elasticity of demand may be slated in the form of a formula.

$$income\ elasticity = \frac{proportionate\ change\ in\ the\ quantity\ demand\ of\ commodity}{proportionate\ change\ in\ the\ income}$$

3. Cross elasticity of Demand:

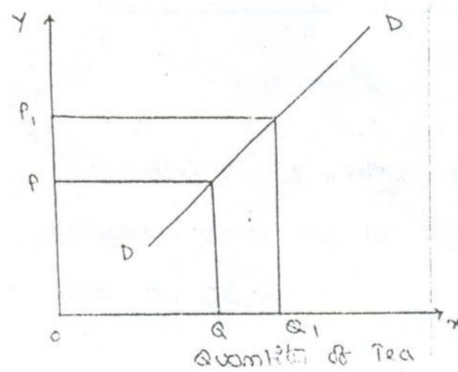
A change in the price of one commodity leads to a change in the quantity demanded of another commodity. This is called a cross elasticity of demand. The formula for cross elasticity of demand is:

$$income\ elasticity = \frac{proportionate\ change\ in\ the\ quantity\ demand\ of\ commodity\ x}{proportionate\ change\ in\ the\ \text{price of commodity y}}$$

a. In case of substitutes, cross elasticity of demand is positive. Eg: Coffee and Tea

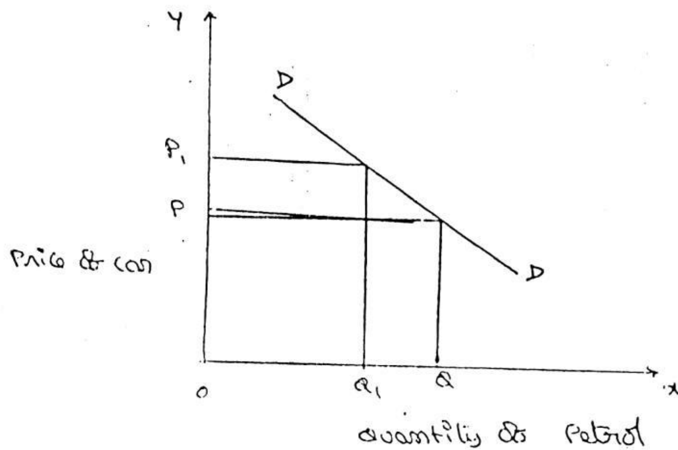
When the price of coffee increases, Quantity demanded of tea increases. Both are substitutes.

Price of Coffee



b. Incase of compliments, cross elasticity is negative. If increase in the price of one commodity leads to a decrease in the quantity demanded of another and vice versa.

When price of car goes up from OP to OP!, the quantity demanded of petrol decreases from OQ to OQ!.



$$E_c = \frac{\% \; QQ_1}{\% \; PP_1} \quad \text{(Negative)}$$

The cross-demanded curve has negative slope.

4. Advertisement elasticity of Demand:

A change in the advertisement cost for a commodity leads to the change in the quantity demanded for a commodity.

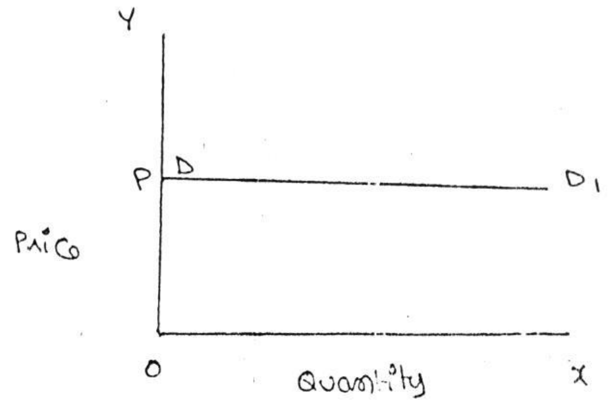
$$Advertisementelasticity = \frac{proportionate\ change\ in\ the\ \text{quantity demanded}\ \ of\ commodity}{proportionate\ change\ in\ the\ \text{advertisement of commodity}}$$

Measures of elasticity of demand:

A. Perfectly elastic demand:

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

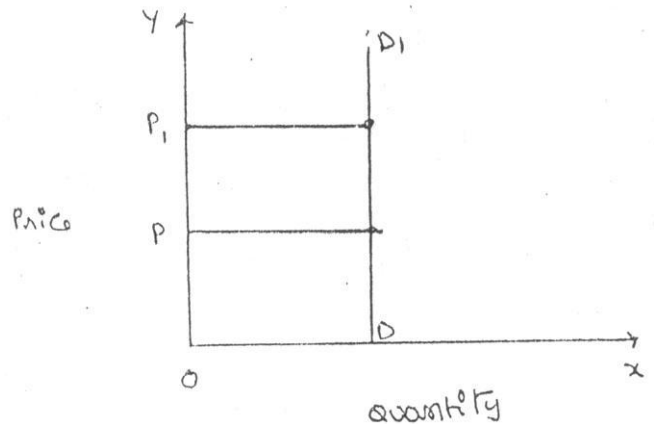
The demand curve DD1 is horizontal straight line. It shows the at "OP" price any amount is demand and if price increases, the consumer will not purchase the commodity.



B. Perfectly Inelastic Demand

In this case, even a large change in price fails to bring about a little or no change in quantity demanded.

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

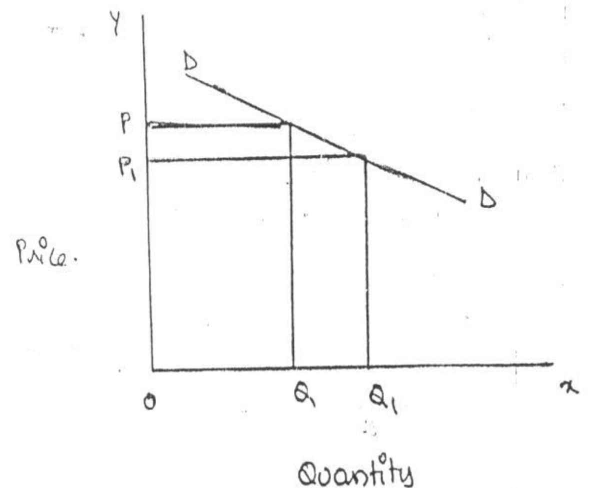


C. Relatively elastic demand:

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

(E > 1). This demand curve will be flatter.

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

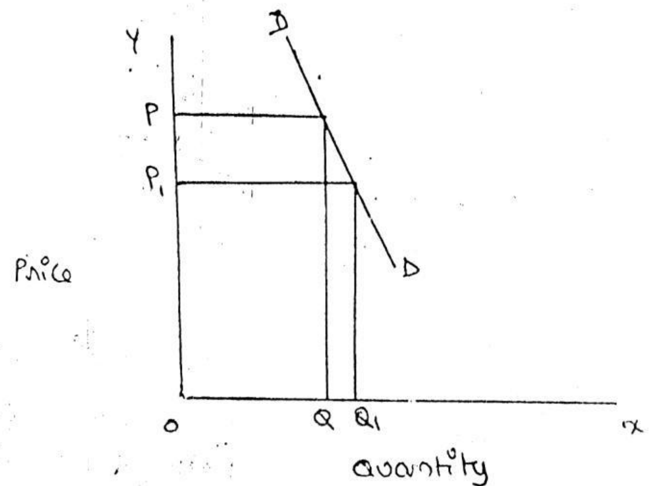


D. Relatively in-elastic demand.

Quantity demanded changes less than proportional to a change in price. A large change in price leads to small change in amount demanded. Here(E < 1)

Demanded carve will be steeper.

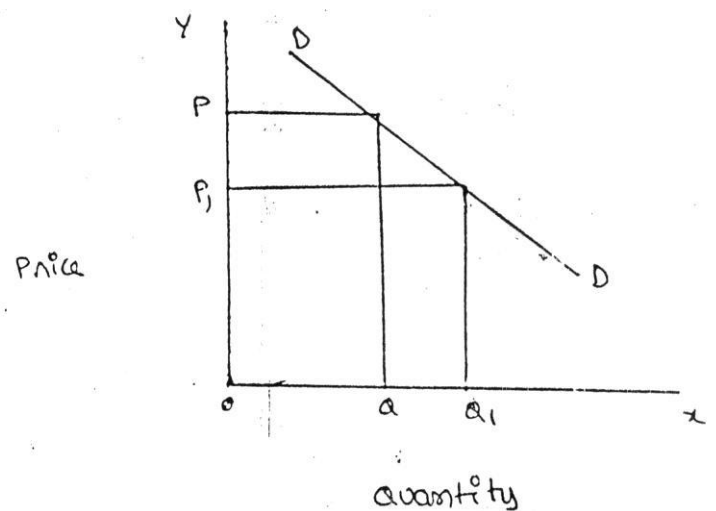
When price falls from "OP' to 'OP1 amount demanded increases from OQ to OQ1, which is smaller than the change in price.



E. Unit elasticity of demand:

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

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



SIGNIFICANCE OF ELASTICITY OF DEMAND

The concept of elasticity is very useful to the producers and the policy makers. It is very valuable to ol t decide the extent of increase or decrease in price for a desired change in the quantity demanded for the products and services in the firm or the economy.

The following are its applications-

a. To fix the prices of factors of production.
b. To fix the prices of goods and services provided rendered
c. To formulate or revise govt policies.
d. To forecast demand
e. To plan the level of output and price.

1. Prices of factors of production:

The factors o f production are land, labour,capital and organization and technology.we need to pay rent,wages,interest,profits and price for the factors of production.

2. .**Price fixation:**

The manufacturer can decide the amount of prices that can be fixed for his product based on the concept of elasticity , if the manufacturer is monopoly, the manufacturer is free to fix as long as it doesnot attract the attention of the govt.If the demand for the product is inelastic, he can fix a higher price.

3. Govt policies

I. **Tax policies:** Govt extensively depends on this concept to finalise its policies relating to the taxes and revenue, where the product is such that the people cannot postpone its consumption, the govt tend to increase the prices.
Eg: Petrol prices.

II. **Raising bank deposits:** If the govt wants to obilisr larger deposits from the customers , it proposes to raise the rates of fixed deposits marginally and vice versa.

III. **Public Utilities**: Govt uses the concept of elasticity in fixing charges for the public utilities such as electricitytariff, water charges.

IV. **Revaluation or devaluation of currency**: The govt has to study the impact of revaluation and devaluation on the interests of th e exporter and importer.

4. **Forecasting Demand**:

The trade can estimate the quantity of goods to be sold at different income levels to raise the targeted revenue. The impact of changing income levels on the demand of the product can be assessed with the help of income elasticity.

5. Planning the level of output and price:

It helps the producer to evaluate whether a change in price will bring in adequate revenue or not,in general for items whose demand is elastic, it would benefit him to charge relatively low prices. If the demand for the product is inelastic, a little higher price may be helpful to him to get huge profis without losing sales