

Chapter 1: Introduction to Managerial Economics

Introduction:

Managerial economics is the science of directing scarce resources to manage cost effectively. It consists of three branches: competitive markets, market power, and imperfect markets. A market consists of buyers and sellers that communicate with each other for voluntary exchange. Whether a market is local or global, the same managerial economics apply.



A seller with market power will have freedom to choose suppliers, set prices, and use advertising to influence demand. A market is imperfect when one party directly conveys a benefit or cost to others, or when one party has better information than others.

An organization must decide its vertical and horizontal boundaries. For effective management, it is important to distinguish managerial from average values and stock from flows. Managerial economics models that is necessarily less than completely realistic.

Definition:

Spencer and Siegel Man defined managerial economics as “the integration of economic theory with business practice for the purpose of facilitating decision making and forward planning by management”.

OR

Brigham and Pappas believe that managerial economics is “the application of economic theory and methodology to the business practices.

Nature of managerial economics:

1. Managerial economics is the youngest of all the social sciences .since it originates from the economics.
2. This assumption is made to simplify the managerial phenomenon under study in dynamic business environment. So many things that are change simultaneously.
3. This sets boundaries that we cannot other things remaining the same.
4. In such a case the observations made out of such study will have a limited purpose or value.
5. Managerial economics also inherited this problem from economics.

The features of managerial economics are as below:

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 back drop of economics: The macro economics conditions of the economy are also seen as limiting factors to for the firm to operate. In another words managerial economics is aware of limits set by macro economics.
3. **Normative statement:** A normative statement usually includes or implies the words 'ought' or 'should'. They reflect people moral attitudes and are expressions of what a team of people ought to do.
4. **Prescriptive actions:** prescriptive actions are goal oriented. Given a problem and object of the firm, it suggests the course of action for available alternatives for optimal solution.

Scope of managerial economics:

The main focus in managerial economics is to find optimal solutions to a given managerial problem. The problem may relate to production, reduction or control of costs, determination of price of a given product or service. It will make or buy decisions. The scope of managerial economics is not yet clearly laid out because it is a developing science. Even then the following fields may be said to generally fall under Managerial Economics:

1. Demand Analysis and Forecasting
2. Cost and Production Analysis
3. Pricing Decisions, Policies and Practices
4. Profit Management
5. Capital Management.

1. Demand Analysis and Forecasting:

A business firm is an economic organization which is engaged in transforming productive resources into goods that are to be sold in the market. A major part of managerial decision making depends on accurate estimates of demand. A forecast of future sales serves as a guide to management for preparing production schedules and employing resources.

2. Cost and production analysis:

A firm's profitability depends much on its cost of production. A wise manager would prepare cost estimates of a range of output, identify the factors causing or cause variations in cost estimates and choose the cost-minimizing output level, taking also into consideration the degree of uncertainty in production and cost calculations. Production processes are under the charge of engineers but

the business manager is supposed to carry out the production function analysis in order to avoid wastages of materials and time.

3. Pricing decisions, policies and practices:

Pricing is a very important area of Managerial Economics. In fact, price is the genesis of the revenue of a firm and as such the success of a business firm largely depends on the correctness of the price decisions taken by it. The important aspects dealt with this area are: Price determination in various market forms, pricing methods, differential pricing, product-line pricing and price forecasting.

4. Profit management:

Business firms are generally organized for earning profit and in the long period, it is profit which provides the chief measure of success of a firm. Economics tells us that profits are the reward for uncertainty bearing and risk taking. A successful business manager is one who can form more or less correct estimates of costs and revenues likely to accrue to the firm at different levels of output.

5. Capital management:

The problems relating to firm's capital investments are perhaps the most complex and troublesome. Capital management implies planning and control of capital expenditure because it involves a large sum and moreover the problems in disposing the capital assets off are so complex that they require considerable time and labor.

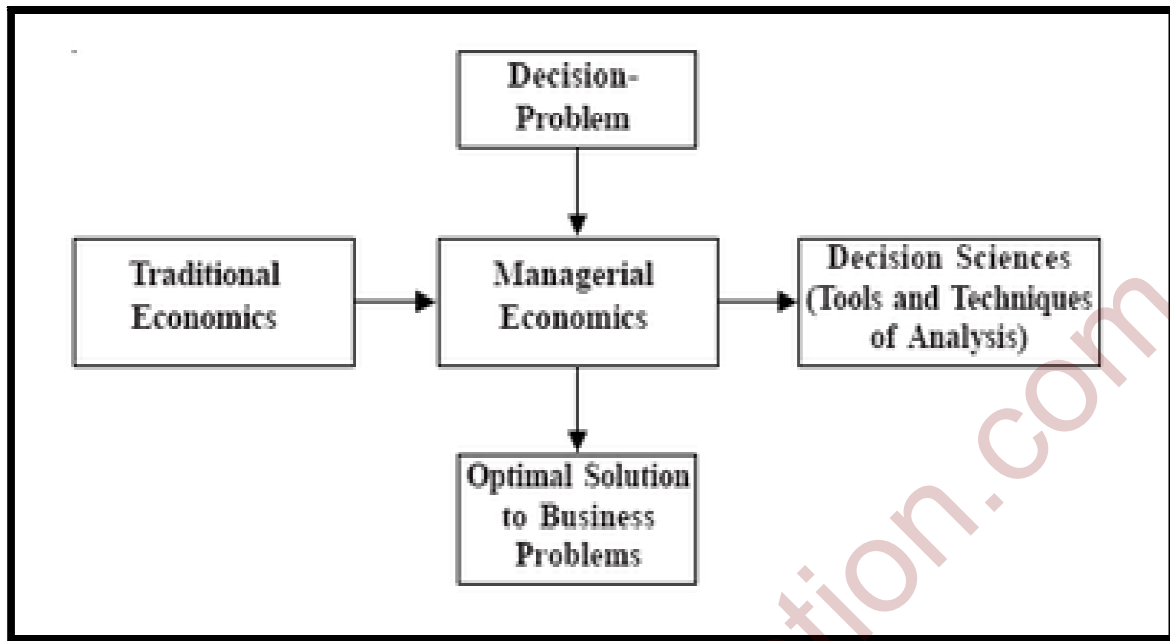


Fig 1: Scope of managerial economics.

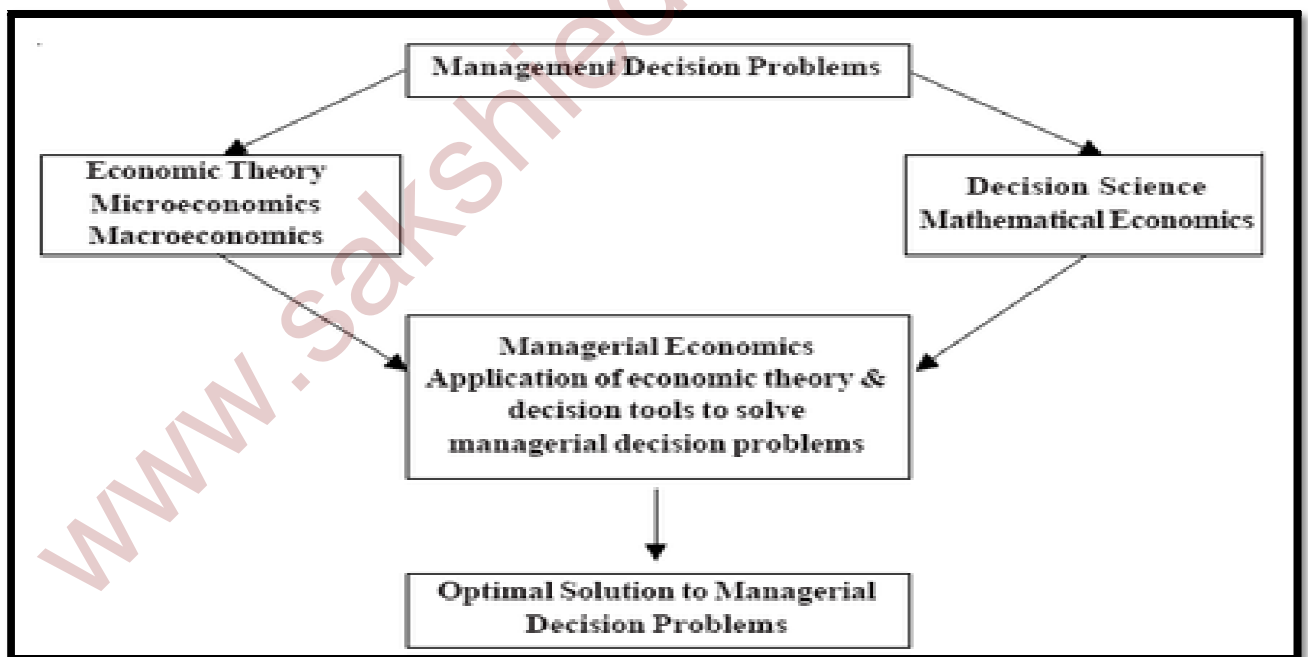


Fig 2: Scope of managerial economics.

Demand Analysis:

The concept 'Demand' refers to the quantity of goods or services that consumers are willing and able to purchase at various prices during a given period of time. It is to be noted that demand in economics is something more than desire to purchase through desire is one element of it.

Example: A beggar, for instance, may desire food, but due to lack of means to purchase it, his demand is not effective.

The Law of Demand:

The law of demand states: Other things remaining the same, the higher the price of a good, the smaller is the quantity demanded; and the lower the price of a good, the larger is the quantity demanded. The law of demand results from

- ❖ Substitution effect
- ❖ Income effect.

Substitution Effect:

When the relative price (opportunity cost) of a good or service rises, people seek substitutes for it, so the quantity demanded of the good or service.

Income Effect:

When the price of a good or service rises relative to income, people cannot afford all the things they previously bought, so the quantity demanded of the good or service decreases.

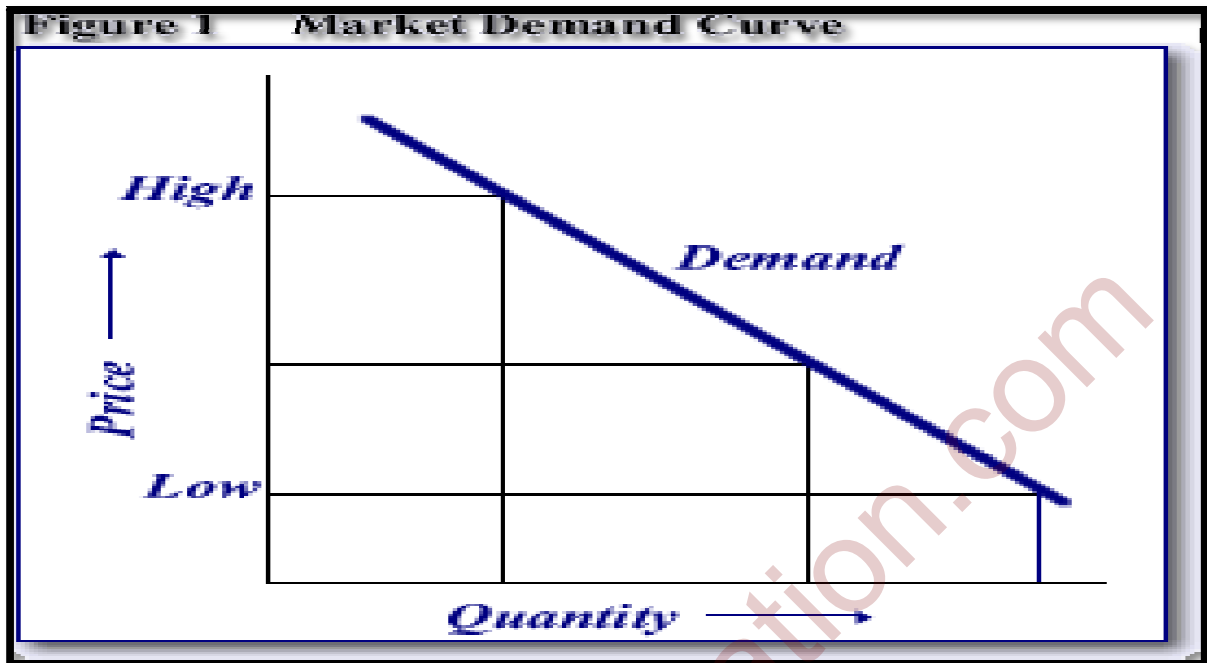


Fig 3: Market Demand Curve with Example

Elasticity of Demand:

Elasticity of demand is an important variation on the concept of demand. Demand can be classified as elastic, inelastic or unitary. An elastic demand is one in which the change in quantity demanded due to a change in price is large. An inelastic demand is one in which the change in quantity demanded due to a change in price is small.

The formula for computing elasticity of demand is:

$$\frac{(Q1 - Q2) / (Q1 + Q2)}{(P1 - P2) / (P1 + P2)}$$

$$(P1 - P2) / (P1 + P2)$$

If the formula creates a number greater than 1, the demand is elastic. In other words, quantity changes faster than price. If the number is less than 1, demand is

inelastic. In other words, quantity changes slower than price. If the number is equal to 1, elasticity of demand is unitary. In other words, quantity changes at the same rate as price.

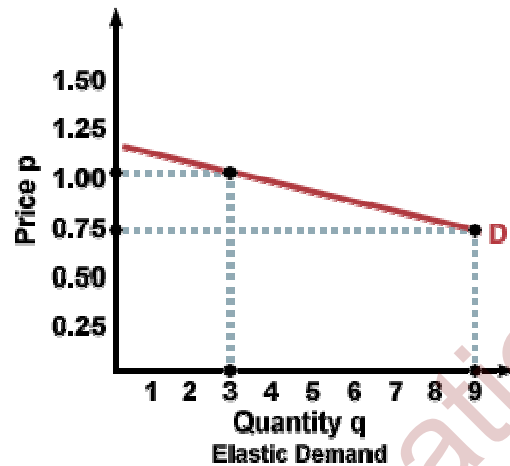


Fig 4: Elasticity of Demand.

Types of Elasticity of Demand:

After knowing what is demand and what is law of demand, we can now come to elasticity of demand. Law of demand will tell you the direction i.e. it tells you which way the demand goes when the price changes. But the elasticity of demand tells you how much the demand will change with the change in price to demand to the change in any factor.

Different types of Elasticity of Demand:

1. Price Elasticity of Demand
2. Income Elasticity of Demand
3. Cross Elasticity of Demand
4. Advertisement Elasticity of Demand

Price Elasticity of Demand: We will discuss how sensitive the change in demand is to the change in price. The measurement of this sensitivity in terms of percentage is called Price Elasticity of Demand.

Income elasticity of demand: In economics, the income elasticity of demand measures the responsiveness of the quantity demanded of a good to the change in the income of the people demanding the good. For example, if, in response to a 10% increase in income, the quantity of a good demanded increased by 20%, the income elasticity of demand would be $20\%/10\% = 2$.

Cross elasticity of demand: In economics, the cross elasticity of demand and cross price elasticity of demand measures the responsiveness of the quantity demand of a good to a change in the price of another good. It is measured as the percentage change in quantity demanded for the first good that occurs in response to a percentage change in price of the second good. For example, if, in response to a 10% increase in the price of fuel, the quantity of new cars that are fuel inefficient demanded decreased by 20%, the cross elasticity of demand would be $-20\%/10\% = -2$.

Types of Price Elasticity of Demands:

- a) Perfectly Elastic
- b) Perfectly Inelastic
- c) Relatively Elastic
- d) Relatively Inelastic
- e) Unit Elasticity

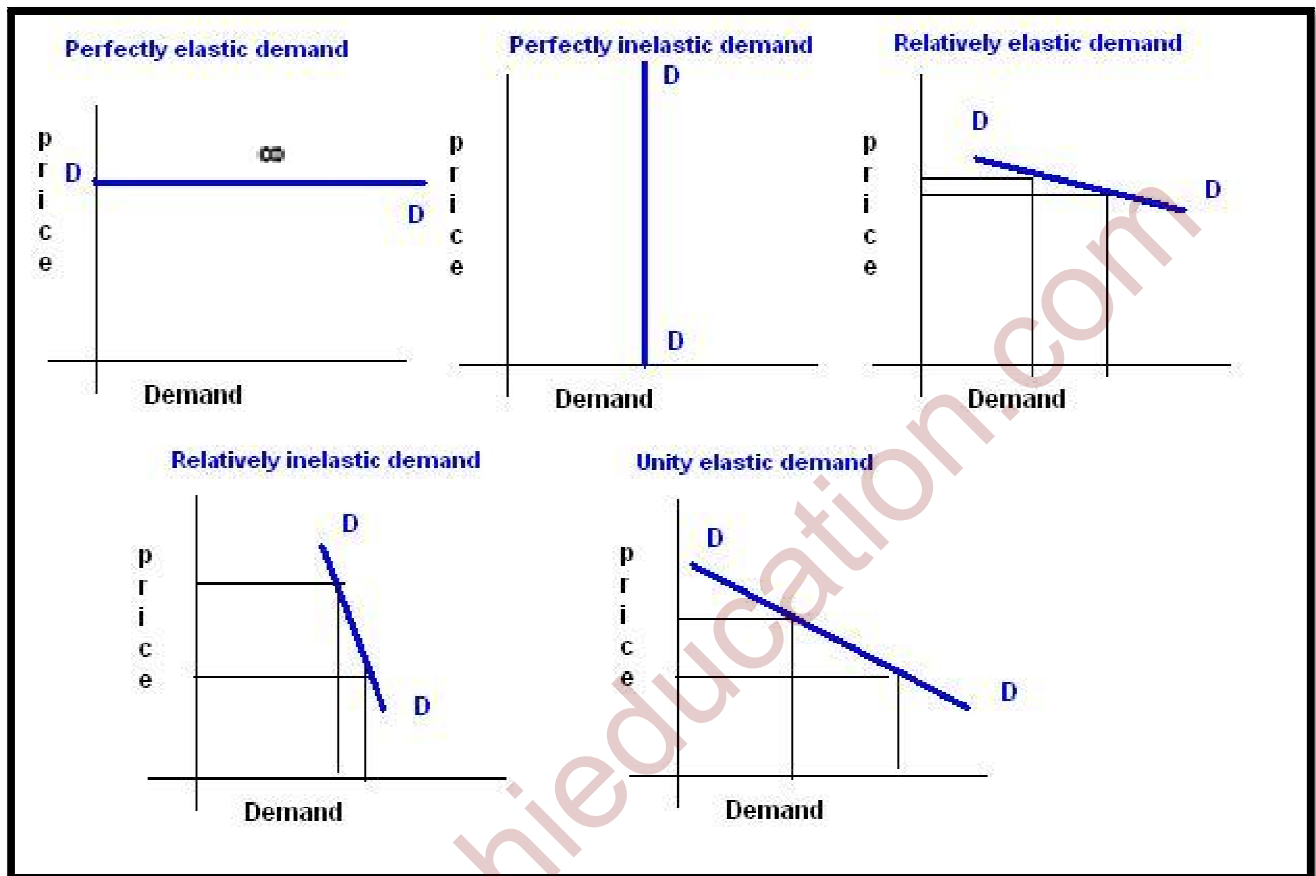


Fig 5: Types of Elasticity of Demand

Demand forecasting:

Period of forecasting:

Demand forecasting may be short-term or long-term. A short-term demand may cover a period of three months, six months or one year but not exceeding one year and long forecasting covers a period exceeding 5 years. A business should forecast short term as well as long term sales/demand for its products to have a clear view of business activities. An alternative method may be to associate the long term and short term forecasting with certain types of decisions.

Demand forecasting may be undertaken at three different levels:

Macro level:

It is concerned with business conditions over the whole economy measured by an approximate index of industrial production, national income or expenditure. This kind of external data covers the basic assumptions on which the business must have a base for its forecasts.

Industry level:

This includes the preparations of sales forecasting by different trade associations.

Firm level:

It is an important matter from the managerial view point. Individual firms forecast their sales.

Methods of demand forecasting:

Why Forecast?

- To plan for the future by reducing uncertainty.
- To anticipate and manage change.
- To increase communication and integration of planning team's.
- To anticipate inventory and capacity demands and manage lead times.
- To project costs of operations into budgeting processes.
- To improve competitiveness and productivity through decreased costs and improved delivery and responsiveness to customer needs.

Relationship of Managerial Economics with Financial Accounting and Management:

Financial management has a close relationship to economics on one hand and accounting on the other.

Relationships to Economics: There are two important linkages between economics and finance. The macroeconomic environment defines the setting within which a firm operates and the micro-economic theory provides the conceptual underpinning for the tools of financial decision making.

Key macro-economic factors like the growth rate of the economy, the domestic savings rate, the role of the government in economic affairs, the tax environment, the nature of external economic relationships, the availability of funds to the corporate sector, the rate of inflation, the real rate of interest, and the terms on which the firm can raise finances define the environment in which the firm operates. No finance manager can afford to ignore the key developments in the macro economic sphere and the impact of the same on the firm.