Presented by Dr.D.ulagammal,(GL) K.N.Govrt.Arts college for women(A) Thanjavur MANAGERIAL ECONOMICS Code : 18KP1COELC01 UNIT – 1

## DEFINTION OF MANAGERIAL ECONOMICS

- "Managerial economics" by Joel Dean in 1951.As Joel dean observes managerial economics shows how economic analysis can be used in formulating policies.
- MEANING –MANAGERIAL ECONOMICS IS "the application of economic theory and methodology to business administration practice."
- Managerial economics "is concerned with business efficiency."
- It is clear, therefore, that Managerial Economics deals with the economic aspects of managerial decisions or with those managerial decisions
- "Managerial Economics is designed to provide a rigorous treatment of those aspects of economic theory and analysis that are most useful for managerial decision analysis"

## SCOPE OF MANAGERIAL ECONOMICS

- The scope of managerial economics refers to its area of study. Managerial economics has its roots in economic theory.
- Managerial economics provides management with a strategic planning tool that can be used to get a clearer perspective of the way the business world works and what can be done to maintain profitability in an ever-changing environment.
- Application of economic principles to five types of resource decisions made by all types of business organisations.
  - 1. The selection of the product or service to be produced
  - 2. The choice of production methods and resource combination
  - 3. The determination of the best price and quantity combination
  - 4. Promotional strategy and activities
  - 5. The selection of the location from which to produce and sell goods or services to consumers

- The scope of managerial economics covers two areas of decision making A.Operational Issues B.Environmental issues.
- OPERATIONAL ISSUES
- Operational issues refer to those which arise within the business organisation. They pertain to the simple questions of what to produce, when to produce, how much to produce.
- It include choice of price, promotion of sale and the strategy to face competition. The other internal issues are management of profit and capital, inventory management etc,,
- ALL THESE BROAD ISSUES
- Theory of demand and demand forecasting
- Pricing and competitive strategy.
- Cost analysis
- Resource Allocation
- Profit analysis
- Capital/investment analysis
- Strategic planning
- Environmental issues
- ENVIRONMENTAL issues in managerial Economics refer to the general business environment in which the firm operates.

## THE ROLE OF MANAGERIAL ECONOMIST

- A management economist with sound knowledge of theory and analytical tools for information systems, occupies a prestigious place among the personnel. A managerial economist is nearer to the policy maker because his main function is to improve the quality of policy-making. Equipped with specialised skills and modern techniques he analyses the internal and external operations of the firm. He evaluates and helps in decision making regarding sales, pricing, financial issues, labour relations and profitability. he helps in decision-making keeping in view the different goals of the firm.
- His role in decision making applies to routine affairs such as price fixation, improvement in quality,location of plant,expansion or contraction of output ect. The role of managerial economist in internal management covers wide areas of production,sales and inventory schedules of the firm
- The most important role of the managerial relates to demand forecasting because an analysis of general business conditions relates to demand forecasting because an analysis of general business conditions is most vital for the success of the firm.He prepares a short terms forecast of general business activity and relates general economic forecasts to specific market trends
- The purpose of market research is to provide a firm with information about current market position as well as present and possible future trends in the industry. A managerial economist who is well equipped with this knowledge can help the firm to plan product improvement, new product policy, pricing and sales promotion strategy.
  The fourth function of the managerial economist is to undertake an economic analysis of the industry. This is concerned with project evaluation and feasibility study at the firm level, he should be able to judge on the basis of cost-benefit analysis, whether it is advisable and profitable to go ahead with the project .the managerial economist should be adept at investmant appraisal methods. At the external level, economic analysis involves the knowledge of competition involved, possibility of

- The specific function of a managerial economist includes an analysis of environmental issues.
- The managerial economist who is aware of this basic knowledge of environmental issues, can be a worthy citizen making the firm fit into environment.
- The role of management economist lies not in taking decisions but in analysing, concluding and recommending to the policy maker.
- He should have the freedom to operate and analyse and must possess full knowledge of facts.
- He has to collect and provide the quantitative data from within the firm.

### DEMAND ANALYSIS

- 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 amont demanded increases with a fall in price and diminishes with a rise in price."
- A rise in the price of a commodity is followed by a reduction in demand and a fall in price is followed by an increase in demand.

## LAW OF DEMAND IS BASED ON CERTAIN ASSUMPTIONS

- There is no change in consumers taste and preferences.
- Income should remain constant.
- Prices of other goods should not change.
- There should be no substitute for the commodity.
- The commodity should not confer any distinction.
- The demand for the commodity should be continuous.
- People should not expect any change in the price of the commodity.

## ELASTICITY OF DEMAND

- Elasticity of demand explains the relationship between a change in price and consequent change in amount demanded.
- Law of demand explains the direction of change in demand. A fall in price leads to an increase in quantity demanded and vice versa.
- The elasticity of demand in a market is great or small according as the amount demanded increases much or little for a given fall in the price and diminishes much or little for a given rise in price.

## ELASTIC DEMAND AND INELASTIC DEMAND

- A small change in price may lead to a great change in quantity demanded.
- If a big change in price is followed by a small change in demand then the demand is inelastic.

## TYPES OF ELASTICITY OF DEMAND

- Price elasticity of demand
- Perfectly or infinitely elastic demand
- Perfectly inelastic demand
- Relatively elastic demand
- Relatively inelastic demand
- Unit elasticity of demand.

## FACTORS DETERMINING ELASTICITY OF DEMAND

- Nature of the commodity
- Availability of substitutes
- Variety of uses
- Postponement of demand
- Amount of money spent
- Time
- Range of prices

# Concept of elasticity of demand

- Price fixation; Each seller under monopoly and imperfect competition has to take into account elasticity of demand while fixing the price for his product.
- Production: producers generally decide their production level on the basis of demand for the product.
- Distribution: Elasticity of demand also help in the determination of rewards for factors of production.

- International trade:Elasticity of demand help in finding out the terms of trade between two countries.
- Public finance: Elasticity of demand helps the government in formulating tax policies.
- Nationalisation: The concept of elasticity of demand enables the government to decide about nationalisation of industries.

# DEMAND FORECASTING

 Demand forecasting refers to an estimate of future demad for the product. It is an "objective assessment of the future course of demand". In recent times, forecasting plays an important role in business decision-making.Demand forecasts relate to production, inventory control, timing, reliability of forecast etc.

## TYPES OF DEMAND FORECASTING

- Short-term demand forecasting
- Short-term demand forecasting is limited to short periods, usually for one year. It relates to policies sales, purchase, price and finances. Itrefers to existing production capacity of the firm. Short term forecasting is eswsential for formulating a suitable price policy. Short term forecasting helps in reducing the costs of operation. Short term forecasting helps in sale policy formulation.

# LONG-TERM FORECASTING

- In long-term forecasting, the businessmen should know about the long term demand for the product. Planning of a new plant or expansion of an existing unit depends on long term demand. similarly a multi-product firm must take into account the demand for different items. When forecasts are made covering long periods.
- Demand Forecasting into three types :
- They are macro economic forecasting, industry forecasting and firmal level forecasting.

 Macro economic forecasting is concerned with the economy, while industrial level forecasting is concerned with the economy, while industrial level forecasting is used for inter-industry comparison and is being supplied by trade association or chamber of commerce. Firmal level forecasting relates to individual firm.

### METHODS OF FORECASTING

- SURVEY METHOD:
- Opinion Survey Method:- This method is also known as sale force- composite method or collective opinion method. Under this method the company ask its salesmen to submit estimates of future sales in their respective territories. This method is simple and straight forward.
- reference books:

Managerial economics – R.Cauvery

U.K.Sudhanayak

M.Girija

R.Meenakshi

Managerial economics – G S Gupta

### MANAGERIAL ECONOMICS

- SUBJECT HANDLED
- BY
- Dr.T.VASUGI

### GUEST LECTURER IN COMMERCE K.N.GOVT. ARTS COLLOEGE(W), AUTONOMOUS THANJAVUR.

#### **UNIT – II PRODUCTION FUNCTION & LAWS PF PRODUCTION**

**INTRODUCTION OF PRODUCTION FUNCTION**: Production is an • organized activity of transformation inputs into outputs. Inputs refer to all those things which a firm buys to produce a particular product. Output means the quantity of goods in the finished form produced by the firm for selling by using the inputs. The term input is wider in its scope than the term factors of production. Inputs not only refer to factors of production, but also other things purchased by the firm or spend by the firm in the process of production. It also includes the rendering of the various kinds of services, such a banking, insurance, transport. The process of production adds to the values or creation of utilities.

### What is Production Function?

A production function expresses the relationship between a combination of inputs and outputs. Production is a process in which the physical inputs are transformed into physical output. The output is thus the function of inputs. The production shows for a given state of technology and managerial ability, the maximum rates of output that can be obtained from different combinations of the productive factors during the period of time or unit of time.

### **DEFINITION OF PRODUCTION**

- According to James bates and J.R. Parkinson "Production is the organised activity of transforming resources into finished products in the form of goods and services; and the objective of production is to satisfy the demand of such transformed resources.
  - "the production function is a single valued mapping from input space into output space in as the maximum attainable output for any stipulated set of inputs is unique".

There are two broad classes of production function:

- Fixed proportion production function,
- Variable proportion production function

A production process is characterized by fixed proportions, if each level of output technologically requires a unique combination of inputs. If the technologically determined input-output ratio is independent of the sale of production for each input, the production process is characterized by fixed input coefficient.

A variable proportion production function is one in which the same level of output may be produced by two or more combinations of inputs.

### LAWS OF PRODUCTION

In Economic theory, production analysis considers two types of input-output relationships.

- The input-output relationship when certain inputs are kept fixed and other inputs are made variable.
- When all inputs are made variable.
- These two types of relationships have been studied and explained in the form of laws,
- Law of variable proportions, and
- Laws of returns to scale.

Laws of variable proportion

The law of variable proportions is the fundamental law of production which consists two phases,

- The law of increasing returns and
- The law of diminishing returns.
- The level of output of a firm depends on the combination of different factors, land, labour, capital and organization.

Alfred Marshall:" An increase in the amount of a variable factor added to a fixed factor causes, in the end, a less than proportionate increase in the amount of product, given technical conditions".

"As equal increments of one input are added, the inputs of other productive services being held consent, beyond a certain point, the resulting increments of product will decrease, i.e., the marginal product will diminish".

### Assumptions of the law

The law is based upon the following assumptions:

- If there is any improvement in technology, the average and marginal output will not decrease but increase.
- Only one factor of input is made variable and other factors are kept constant.
- All units of the variable factor are homogeneous.

### There stages of the law

The behaviour of the output when the varying quantity of one factor is combined with a fixed quantity of the other can be divided into three stages.

#### **PRODUCTION FUNCTION &LAW OF PRODUCTION**

Fixed Factor (Machine) (1)	Variable Factor (Labour) (2)	Total Production in units (3)	Average Production in units (4)	Marginal Production in units (5)
1 +	11	10	10.0	10
* +	2	22	11.0	12
* *	3	36	12.0	14
KS(" + -	4	52	13.0	16
"+	5	66	13.2	14
<b>*</b> +	6	76	12.6	10
+	7	80	11.4	4
<b>*</b> +	8	. 82	10.2	2
<b>.</b> +	9	82	9.2	0
* +	10	78	7.8	-4



#### LAW OF RETURNS TO SCALE

- The short-run phenomenon, as in this period fixed factors cannot be changed and all factors cannot be changed.
- The long-term all factors can be changed or made variable.
- In variable proportions, the co-operating factors may be increased or decreased and one factor, e.g., land in agriculture or machinery in industry.
- The difference between the changes in factors proportion and changes in the scale will be clear from the following figure.

#### **Changes in scale and Factor Proportions**



### Three phases of returns to scale

- If the increase in all factors leads to a more than proportionate increase in output, returns to scale are said to be increasing.
- A doubling of the scale will result in output being more than double.
- If the scale is trebled the output will be more then treble.

#### ALLOWING 1.D

### Table showing Returns to scale

Serial No.	Scale	Total Product of Corn in units	Marginal Product or Return in units	
1	1 Labour + 2 acres of Land	4	4]	
2	2 " + 4 "	10	6 Stage I	
3	3 " + 6 "	18	8 Increasing	
4	4 * + 8 *	28	10	
5	5 " +10 "	38	107 Stage II	
6	6 * +12 "	48	10 Constant Returns	
7	7 " +14 "	56	8ן Stage III	
8	8 " +16 "	62	6 decreasing Returns	



#### Three phases of returns to scale

First stage, we have increasing returns. Second stage, constant returns. Third stage, the decreasing returns



#### Constant returns to scale

•We increase all factors in a given proportion and the output increases in the same proportion, returns to scale are said to be constant.

The constant returns to scale can be explained with the help of the scale line and iso-product map.



### Increasing returns to scale

The increase in scale results in more than proportionate output, it is increasing returns to scale.

If all inputs are increased by 20 percent, and output increases by 50 percent, then the increasing returns to scale is said to be operating.


### Decreasing returns to scale

The larger and larger gaps between successive iso-product curves indicate the operation of the law of diminishing returns to scale.there are differing opinions regarding the cause of diminishing returns.the inputs are increased in the given proportion, the output is not increasing proportionately.

## **BREAK-EVEN ANALYSIS**

#### What is Break even Analysis?

Break-even analysis is a study of costs, revenues and sales of a firm and finding out the volume of sales where the firms costs and revenues will be equal. The break even point is that level of sales where the net income is equal to zero. The break even point is the zone of no-profit and no-loss, as the costs equal revenues.

### **Objective:**

 to create an understanding and relationship between cost, revenues and output that could be sold within the competence of the firm.

#### **Determination of break-even point**

The BEP of a firm can be found out in two ways.

- Physical units, i.e., volume of output
- Sales values.

## **1.BEP IN TERMS OF PHYSICAL UNITS**

Output in units	Total Revenue : (Price Rs.4/- per unit)	Total fixed cost Rs.	Total variable cost Rs.	Total Cost Rs.
~ 0	0	300	0	300
100	400	300	300	600
200	800	300	600	900
200	1200	300	900	1200
400	1600	300	1200	1500
500	2000	300	1500	1800
600	2400	300	1800	2100

(Selling Price : Rs.4/- per unit)



#### **Break even point**

TFC IS the total fixed cost. TR is the total revenue and TC Is the total cost. Since TFC is constant at all levels of output, it is parallel to X axis. From the figure, we can see that the break-even point lies at 300 units of output. The firm is neither incurring loss nor realising any profit. It is the Break-even point, the point of production ,there isno loss and no profit.

## 2. BEP in terms of sales value

## **Usefulness of Break-Even Analysis**

- Safety Margin
- Target profit
- Change in price

## **Limitations of Break-even Analysis**

- It is static in character
- Projection of future with the past is not correct.
- The assumption that cost-revenue-output relationship is linear is true only over a small range of output.
- The profit are a function of not only output, but also other factors like technological change, improvement in the art of management, etc.

## **COSTS : CONCEPTS & CLASSIFICATIONS**

- Difference between Economist and Accountant
- The accountant views the cost of an asset by taking into account the actual money spent on it.
- The accountants cost is the money spent or acquisition cost. This acquisition cost tells merely the cost amount of the resource.
- The economist analysis cost in terms of choice faced by the firm in utilising its resources.
- The opportunity cost may be more than the acquisition cost or it may be less than that.

#### COST CLASSIFICATIONS

- Opportunity cost- outlay cost
- Past cost- future cost
- Traceable-common costs.
- Out-of-pocket –book-costs
- Incremental cost vs. sunk cost

- Escapable vs, Unavoidable costs
- Shut down and abandonment costs
- Urgent and postponable costs
- Controllable and non-controllable costs
- Replacement vs. Historical cost
- Private and social cost
- Short-run and long-run costs.
- Fixed cost and variable cost.

### Semi- Variable cost

There are some costs which are neither perfectly variable, nor absolutely fixed in relation to the changes in the size of output. They are known as Semi-variable costs.

Examples: Electricity charges include both a fixed charges and a charge based on consumption.

## TOTAL COST, AVERAGE COST AND MARGING COST

- Total cost of production is the total money expenses incurred for buying the input required for producing a commodity or a service. E.g, the amount spent on wood, nails, varnish, labour, rent for the premises, interest on capital, etc.
- Average cost is the unit cost of production. It is the cost per unit of output. Average total cost is the sum of average fixed cost and the average variable cost.
- Marginal cost is defined as the addition made to the total cost by the production of one additional unit of output. The marginal cost is the addition to the total cost of production.

## **COST FUNCTION**

The cost determinants in modern manufacturing enterprises. These are:

- Rate of output(Utilization of fixed plant)
- Size of plant
- Prices of input factors (Materials and labour)
- Technology
- Stability of output
- Efficiency of management and labour,

In economic theory, there are mainly two types of cost functions,

- The short-run cost function and
- The long run cost function.

## Short-run cost-output relationship



• The short-run, the average cost of the firm declines to a minimum and then rises. It declines depends on the proportion of fixed cost to total cost. The average cost curve is 'u' shaped in the short-run.

## Accounting vs. Economic view

The Accountant view about cost-output relationship is different from prevailing traditional economic theory.

#### LONG-RUN COST-OUTPUT RELATIONSHIP



Long-run average cost is the long-run total cost divided by the level of output. The average cost of production at different levels of output. It is the cumulative picture of short-run average cost curves. The short-run average cost curves are also called plant curves, since in the short-run average cost curve corresponds to a particular plan

## LEARNING CURVE

Several kinds of improvements are effected through learning.

- Lesser time to instruct workers.
- Better co-ordination and operational sequence.
- Better and skillful movement of workers
- Improvements in machines and tooling.
- Improved management control.

### Measurement of cost-output relationship

There are three approaches,

- Accounting approach
- Engineering approach
- Statistical approach.

## **UNIT III -PRICE POLICIES**

#### What is price ?

Price means the cost or the amount at which something is valued. An examples, of a price is \$1 for three cookies.

### There are many factors which influence the price of a commodity:

- The demand for a commodity
- Cost of production
- Objectives of the firm
- Competition and
- Government policy.

### **Objectives:**

- Achieving a target rate of return on investment
- Accomplishing the target rate of growth
- Maintaining and improving the market share
- Maintaining the prestige of the firm
- Enhancing the goodwill of the company
- Stabilising the prices.

## **PRICING METHODS**

# The various pricing methods usually employed by businessmen are :

- Cost-plus or full-cost pricing methods
- Target pricing or pricing for a rate of return
- Marginal pricing
- Going rate pricing
- Customary pricing
- Differential pricing

## **Pricing in public utilities**

The term 'public utilities' in the economic sense refers to services like water-supply, gas supply, electricity, telephone services, communication and all forms of transport. Public utilities refer to those group of industries which are run with a public interest. Let us discuss about the pricing policy and methods in public utility services :

- Marginal cost pricing
- Average cost pricing
- Fair return principle
- Actual pricing.

## Price and output determination under perfect competition:

Competition in business connotes the presence of more than one seller and one buyer in a particular market. In competition markets sellers act independently of sellers and each buyer also acts independently of other buyers.

Competition is a very general and theoretical term. It has many different meanings.

### **Competition refer to different types of competition such as**

### **Perfect competition**

Perfect competition means "rational conduct on the part of buyers and sellers, full knowledge, absence of friction, perfect mobility and perfect divisibility of factors of production and completely static conditions".

### Features of perfect competition:

- Large number of buyers and sellers
- Homogeneous product
- Free entry and exist conditions
- Perfect knowledge on the part of buyers and sellers
- Perfect mobility of factors of production
- Absence of transport cost
- Absence of government or artificial restrictions
   Monopoly

Monopoly is the opposite extreme of perfect competition. It means absence of competition. It denotes a single sellers or producer having the control over the market.

## Features of monopoly

#### Monopoly will have the following features:

- It should have only single control
- The commodity produced should not have any close substitute.
- No freedom to other entrepreneurs to enter and compete with the existing seller having full control over the market.
- He may also adopt price discrimination.

#### Monopoly power

- Power given by the government
- Legal power
- Technical power
- o Combinations

#### Types of price discrimination:

- Personal discrimination
- Place discrimination
- Trade discrimination

#### Imperfect competition

Imperfect competition is a negatie term denoting a market situation that is not perfect. This imperfection may take any form. There may be group competition between very few firms.

## Features of monopolistic competition

- Existence of large number of firms.
- Product differentiation
- Selling cost
- Freedom of entry and exist of firms

#### Oligopoly

Oligopoly refers to that form of imperfect competition where there will be only a few sellers producing either a homogeneous product or products which are close substitutes, but not perfect substitutes

#### **Definition of oligopoly**

"situation in which a firm bases its market policy in part on the expected behaviour of a few close rivals".

#### There are different types of oligopoly. They are :

- Pure and perfect oligopoly and differentiated or imperfect oligopoly.
- Open and closed oligopoly
- Collusive and competitive oligopoly
- Partial or full oligopoly
- Syndicated and organised oligopoly

## Characteristics of oligopoly

- Interdependence
- Indeterminate demand curve
- Importance of selling cost
- Group behaviour
- Element of monopoly
- Price rigidity.

#### Duopoly

Duopoly refers to a market situation in which there are only two sellers. Each seller tries to guess the rival's motives and actions. The two firms may either resort to competition.

#### Monopsony

Monopsony refers to a market in which there is a single buyer or a single purchasing agency. The whole of a commodity or service will be purchased by this single agency. It is possible that the single buyer may be facing a single seller, i.e., monopsony facing a few sellers or oligopoly.

## UNIT-IV PROFIT MANAGEMENT

- Nature of profit:- Profit means the net income of the business man. It is necessarily a residual income. It can be calculated by deducting the total expenditure incurred in a business from the total receipts. Profit is a return to the entrepreneur for the use of his entrepreneurial ability. He must do something more than routine management to earn profit
- AN ENTREPRENEUR ESSENTIALLY DOES TWO THINGS:-I. He decide what to produce, how to produce and how much to produce. He also plan about the utilisation of his limited resources, and profit may be regarded as a reward for uncertainty bearing.
- The entrepreneur must search for new methods of production, new ways of business organisation, new marketing techniques and approaches .

## METHODS OF MEASUREMENT OF PROFIT

- Measurement of profit :- The problem of measurement of profit has been a difficult affair because of the problem involved in allocating the correct costs and revenues to a given accounting periods.
- There are different ways of measuring profit :
- A)Depreciation B) valuation of stock C) Allocation of expenses over time periods. D) Capital gains and losses.

- A . DEPRECIATION:- Depreciation means fall in the quality or value of an asset. Therefore, in order to measure the true income of a business a charge is made against the annual income of the business. The charge is known as depreciation.
- There are a number of methods of measuring depreciation:-
- .The straight –line method;
- The units of- production method;
- The declining balance method;
- The sum- of- the years digits method;
- The revaluation method;
- The repair provision method;
- The retirement accounting method.

## THE STRAIGHT – LINE METHOD

 THE STRAIGHT –LINE METHOD:- This method is simple and is most commonly used method of depreciation. It is based on the assumption that the value of an asset declines at a constant ratTherefore it is also called as proportional or equal instalment method. The amount of depreciation is obtained by dividing the initial cost of the asseta by the estimated life. If the assets has scrap value, it has to be deducted frome the initial cost before dividing it by the estimated life.

## THE UNIT-OF – PRODUCTION METHOD

- This method resembles the straight –line method, the difference between the two methods is that, in this method depreciation is based on the estimated output and the life of the machine is estimated in hours.
- This methods is not very popular because under this method depreciation is not allowed for purposes of tax deduction.

# THE SINKING – FUND METHOD

- In this method it is assumed that whaen replacement of the old asset is due, a given sum will be available for the purchase of a new asset without affecting the financial position of the concern.
- The amount of depreciation is calculated as a fixed periodic charge and is deposited in readily saleable securities.

## The declining-balance method

 under this method, depreciation is provided on a uniform rate on the written down value of the asset at the beginning of the year.

## The sum of the years digits method

- it is similar to that of the declining balance method.
- it provides for a more or less uniform total cost of operation of the asset. The amount of depreciation is higher in the first year and it progressively declines with the passage of time. It differs from the declining balance method in that the book value remains constant while the annual rate of depreciation changes.

# The revaluation method

- in this method, the difference between the value of the asset at the beginning and the end of the period is deducted periodically. This amount is depreciation
- This revaluation method is used by small firms

## The repair provision method

 this method provides "for the aggregate of depreciation and maintenance cost by means of periodic charges, each of which is a constant proportion of the aggregate of the cost of the asset depreciated and the excepted maintenance cost during its life". In this method, the cost of repairs is added to the cost of the equipment. The total value of the original cost plus the cost of repairs, less the scrap value is then depreciated eitherunder the decline-balance method or the straight-line method.

## The retirement accounting method

 It refers to the charging of total cost of the fixed asset once the latter has worn-out. Another version is that it should be left to the senior managers who should charge a large amount during the prosperous years and a small one in the lean years.

# **Profit policies**

- economic theory makes a fundamental assumption that maximising profits is the basic objective of the firm
- the managers aim at maximising their utility gunction. The managerial utility function depends on salaries, prestige,market shares,job security,quiet life ect. Baumol postulated that the managerial utility is maximised when the growth of sales revenues is maximised
- some writers have argued tht because of uncertainty in the real world, it is impossible to maximise anything, including profits. So firms do not seek the maximisation of profits, sales, growth or anything else
- K.W rothschild has suggested that the primary objective of firm is a longrun survival. Still other writers have suggested that may firms set as their goal the attainment and retention of a constant market share.

- attaining industry leadership through larger sales volume or manufacturing of maximum product lines may be the most important objective of a business firm instead of making huge profits. Some firms may aim at maximising consumer welfare and maintain consumer good will
- various criteria may be applied to decide the acceptable rate of profit
- profit to attract capital
- "Earnings by the competitors" standard
- historical rate of profit standard
- shareholders' purchasing power standard
- Retained earning standard

# Profit forecasting and control

- forecasting has got all the problems connected with uncertain future.profit forecasting is no exception. According to joel dean, there are three approaches to profit forecasting:
- spot projections
- environmental analysis and
- break-even analysis
- 1. spot projections:

Thisrelates to projecting the entire profit and loss statement for a specified future period by forecasting each important element in the profit and loss statement . Forecasts are made about sales volume prices and costs of

producing the anticipated sales.profit is the difference between sales revenue and cost.

2. Environmental analysis:

It relates the companys profit to the general economic trends that prevail in the economy during the relevant period.

• The general economics trends include key variables like general business activity, general price level ect. The data can be obtained from government publications.

3. Break-even analysis

The break-even analysis is a powerful tool for profit planning and management control. It shows the functional relation of revenue and cost to output

• Of the three techniques,break –even analysis is the most important tool of profit forecasting.in practice,these three approaches need not be mutually exclusive,but can be used jointly for maximum information.

 reference books: Managerial economics – R.Cauvery U.K.Sudhanayak M.Girija R.Meenakshi

Managerial economics – G S Gupta

## UNIT-V NATIONAL INCOME

Meaning : National income gives information about the nation productive capacity and economic strength. National Income study will reveal the extent of utilization of a country's resources and the extent of unemployment. Wealth and income

Wealth consists of the material economic possessions including many diverse things as buildings, automobiles, business inventories of all kinds including proven reserves of unexploited natural resources of the country.

## **Stock and Flow**

Wealth is a stock and income is flow. Stock has no time dimension. It represents quantities of things in existence at a particular moment. Flow represents quantities of things over a period of time.
### The Circular Flow of Income and Goods



The equilibrium of the economy depends on this injection of money and withdrawals. If more is withdrawn than injected, the flow will ge diminished. Only if the two are equal, the circuit will remain stable. In macro economics, we consider all savings as withdrawals from circular flow and all investments as injections into the flow. Unless both are made equal, *i.e.*, inflow and outflow, the level of national income will not remain at the same level. We will study more about savings and investment later on.

## **Definition of national income**

J.R. Hicks defined national income "as a collection of goods and services reduced to a common basis by being measured in terms of money".

### **Concept of national income**

- National income is the sum of incomes earned during the period from supplying of factor units for the use of production.
- It is taken as total production per year of goods and services in the country measured in money.
- It is taken as total consumption of the country per year plus investment.

### The various methods of national income:

- Gross national product: means the money value of the national production for any given period.
- Net National Product :NNP refers to the net production of goods and services in a country during the year.
- National income : this is the total of all income payments received by the factors of production, viz., land, labour, capital and organization.



Biock No.1 in the figure(27.2) indicates GDP. Block No. 2 indicates the elements that give rise to GDP. Agricultural sector, Industries, Commerce and other services are the components which help in Production. Block No. 3 indicates GNP which is arrived at after deducting net factor income payments abroad from GDP. Block No. 4 indicates NNP or national income at market price. This is arrived at by deducting depreciation from GNP. Block No. 5 indicates national income at factor cost, simply called national income which is arrived at by making adjustment for business indirect taxes and subsidies as indicated already.

- Personal income: This is the actual income received by the individuals and households in the country from all sources.
  - Personal income= national income minus corporate income taxes minus undistributed corporate profits minus social security contributions plus transfer payments.
- Disposable personal income: this is simply the after-tax of personal income. The personal income is not available for consumption as personal direct taxes have to be paid. After payment of personal direct taxes is called disposable.

### **COMPUTATION OF NATIONAL INCOME**

- Production approach
- Expenditure approach
- Earning or income approach

### DIFFICULTIES IN THE MEASUREMENT OF NATIONAL INCOME

- The measurement of national income is best with difficulties. In the underdeveloped countries, these difficulties are more prominent, making the computation of national income an extremely difficult task and the figures may not be much dependable.
- Conceptual difficulties
- Statistical difficulties

### Factors determining national income:

There are a number of influences which determine the size of the national income in a country. The three main influences are :

- Quality and quantity of factors of production
- The state of technical know-how; and
- Political stability.

### National income and real income

When national income is expressed in terms of current prices, it is called National income, but when it is expressed in terms of constant prices prevailing in the base year; it is called Real income. The national income of a particular year when compared with the national income of the base year, will include the effect of two changes, viz.,

- Change in the production of goods and services; and
- Change in the price level or value of money.
  Per Capital real income= Real national income

Size of population

#### Uses of national income statistics:

- National income statistics are valuable instruments of economic analysis and a guide to economic policies to be pursued.
- ✤ NI statistics given an idea of the structure of the economy.
- ✤ NI estimates help us to study inter-sectoral growth.
- ✤ NI estimates enable us to study inter- class income distribution.
- NI estimates enable us to make international comparisons and the standard of living of the people.
- NI figures show the capacity of each country to bear some common burden of international institutions like the UNO.

- MANAGERIAL ECONOMICS
- CODE: 18KP1COELC01
- UNIT -2 PRODUCTION FUNCTION
- QUESTION PAPER PATTERN

Maximum Marks = 75 Time: 3 hours

Part A:10 X2 = 20(Two questions from each unit)

Part B: 5 x5 = 25(Either or type-one questions from each unit)

Part c :3 x 10 = 30 (one questions from each unit)

### **BOOKS FOR REFERENCE** :

1. Dr. S. Sankaran (Unit I,II,III,IV, V) : Managerial Economics, Margham publications, chennai.

## UNIT-V BUSINESS CYCLE

## **DEFINITIONS OF BUSINESS CYCLE**

 Wesley mitchell stated that "business cycles are fluctuation in the economic activities of organized communities. The adjective ' business' restricts the concept of fluctuations in activities which was systematically conducted on a commercial basis. The nonu 'cycle ' bars out fluctuations which do not recur with a measure of regularity".

## Characteristics of business cycle

- It occurs periodically: The business cycle occur periodically in a regular fashion. This means the prosperity and depression will be occurring alternatively. But there need not be uniformity in the extent and magnitude. Through the general structure of different cycle may be the same.
- It ia all embracing: The business cycle implies that the prosperity or depressionary effect of the phase will be affecting all industries in the entire economy and also affecting the economies of other countries.
- It is wave-like: The business cycle will have a set pattern of movements which is analogous to waves. Rising prices, production, employment and prosperity will become the features of upward movement: falling prices, employment will become the features of the downward movement.

- The process is cumulative and selfreinforcing: the upward moment and downward movement are cumulative in their process.when once the upward moment starts, it creates further movement in the same direction by feeding on itself
- The cycle will be similar but not identical: different cycles and waves in the business cycle will be similar in general features, but they are not identical in all respects'.

# Phases of business cycle

### 1. boom or prosperity phase

- The full employment and the movement of the economy beyond full employment is characterized as boom period
- "A syate of affairs in which the real income consumed, real income produced, and level of employment are high or rising, and there are no idle resources or unemployed workers, or very few of either".

### 2. Recession

 The turning point from boom condition is called recession. Generally, the failure of a company or a bank, bursts the boom and brings a phase of recession. Businessmen being to realize that they have overstepped their mark and their over-optimism gives place to pessimism

### 3. Depression

 Recession is only a turning point rather than a phase.when this deepens, it culminated into depression. The features of depression are just the reverse of prosperity.  During depression, the level of economic are just the reverse of prosperity. During depression, the level of economic activity becomes extremely low.prices fall, profit margins decrease, firms incur losses and closure of business become a common feature and the ultimate result is unemployment.

### 4. Recovery

 After a period of depression, recovery sets in . This is the turning point from depression to revival towards upswing.it beings with the revival of demand for capital goods. Autonomous investments boosts the activity. New blood, in the form of expansion of money and credit, is injected in the money stream of the economy and the income of the people goes up.

- the demand slowly picks up and in due course the activity is directed towaeds the upswing with more production,profit, income,wages and employment.
- recovery may be initiated by innovation or investment or by government expenditure

# Control of business cycle

- the trade cycle cannot be controlled by a single operation. It consist of many sided activities in the monetary field, fiscal side and also on the budgeting side.
  - 1. Monetary policy to control trade cycle:
  - the monetary policy should be adopted in an anti-cyclical way. During the period of upswing and boom, supply of money and credit should be controlled and regulated.
  - the central bank of the country should adopt all or choden methods of credit controol. The weapons of credit control, such as bank rate,open market operations,reserve ratio,ect.., should be utilized to control inflationary tendencies and overexpansion of business activity.
  - In times of depression or signs of recession, expansionary credit policy should be adopted to mitigate the severity of recession and depression

- Fiscal policy: the three main instruments of fiscal policy are(a) taxation; (b) spending; and (c) borrowing.
- These three instruments have to be effectively utilized to control the severity of boom or the difficulties of depression
- during the period of recession and depression, the government should reduce substantially thr taxes and leave more money in the pockets of individuals for spending and investment.

- anti-cyclical budgeting: the budgetary policy of the government should be in tune with the measure already indicated to combat the instability created by business cycle
- during times of depression a policy of deficit budgeting should be adopted. This will increase the flow of income in the economy.
- 4. Automatic stabilizer(built-in-stabilizer):when fluctuations take place in the economy, the available monetary and fiscal tools cannot be geared quickly to set right the imbalance.
- further, it is also too much to expect the government officials to act quickly to the tempo of change in economic activity.

Reference book: business economics-s.sankaran

## **UNIT-V- ECONOMIC FORECASTING**

- What Is Economic Forecasting?
- Economic forecasting is the process of attempting to predict the future condition of the <u>economy</u> using a combination of important and widely followed <u>indicators</u>.
- Economic forecasting involves the building of statistical models with inputs of several key variables, or indicators, typically in an attempt to come up with a future gross domestic product (GDP) growth rate. Primary economic indicators include inflation, interest rates, industrial production, consumer confidence, worker productivity, retail sales, and unemployment rates.
- Economic forecasting is the process of making predictions about the economy. Forecasts can be carried out at a high level of aggregation—for example for <u>GDP</u>, <u>inflation</u>, <u>unemployment</u>

- What are the different methods of forecasting?
- Top Four Types of Forecasting Methods
- Technique Use
- 1. Straight line -Constant growth rate
- 2. Moving average-Repeated forecasts
- 3. Simple **linear regression-**Compare one independent with one dependent variable
- 4. Multiple linear regression-Compare more than one independent variable with one dependent variable

Merits and demerits of economic forecasting

## Advantages of forecasting

- 1. You'll gain valuable insight
- 2. You'll learn from past mistakes
- 3. It can decrease costs
- **Disadvantages of forecasting**
- 1. Forecasts are never 100% accurate
- 2. It can be time-consuming and resourceintensive
- 3. It can also be costly

### NATIONAL INCOME

Meaning : National income gives information about the nation productive capacity and economic strength. National Income study will reveal the extent of utilization of a country's resources and the extent of unemployment. Wealth and income

Wealth consists of the material economic possessions including many diverse things as buildings, automobiles, business inventories of all kinds including proven reserves of unexploited natural resources of the country.

### **Stock and Flow**

Wealth is a stock and income is flow. Stock has no time dimension. It represents quantities of things in existence at a particular moment. Flow represents quantities of things over a period of time.

### The Circular Flow of Income and Goods



The equilibrium of the economy depends on this injection of money and withdrawals. If more is withdrawn than injected, the flow will ge diminished. Only if the two are equal, the circuit will remain stable. In macro economics, we consider all savings as withdrawals from circular flow and all investments as injections into the flow. Unless both are made equal, *i.e.*, inflow and outflow, the level of national income will not remain at the same level. We will study more about savings and investment later on.

## **Definition of national income**

J.R. Hicks defined national income "as a collection of goods and services reduced to a common basis by being measured in terms of money".

### **Concept of national income**

- National income is the sum of incomes earned during the period from supplying of factor units for the use of production.
- It is taken as total production per year of goods and services in the country measured in money.
- It is taken as total consumption of the country per year plus investment.

### The various methods of national income:

- Gross national product: means the money value of the national production for any given period.
- Net National Product :NNP refers to the net production of goods and services in a country during the year.
- National income : this is the total of all income payments received by the factors of production, viz., land, labour, capital and organization.



Biock No.1 in the figure(27.2) indicates GDP. Block No. 2 indicates the elements that give rise to GDP. Agricultural sector, Industries, Commerce and other services are the components which help in Production. Block No. 3 indicates GNP which is arrived at after deducting net factor income payments abroad from GDP. Block No. 4 indicates NNP or national income at market price. This is arrived at by deducting depreciation from GNP. Block No. 5 indicates national income at factor cost, simply called national income which is arrived at by making adjustment for business indirect taxes and subsidies as indicated already.

- Personal income: This is the actual income received by the individuals and households in the country from all sources.
  - Personal income= national income minus corporate income taxes minus undistributed corporate profits minus social security contributions plus transfer payments.
- Disposable personal income: this is simply the after-tax of personal income. The personal income is not available for consumption as personal direct taxes have to be paid. After payment of personal direct taxes is called disposable.

### **COMPUTATION OF NATIONAL INCOME**

- Production approach
- Expenditure approach
- Earning or income approach

### DIFFICULTIES IN THE MEASUREMENT OF NATIONAL INCOME

- The measurement of national income is best with difficulties. In the underdeveloped countries, these difficulties are more prominent, making the computation of national income an extremely difficult task and the figures may not be much dependable.
- Conceptual difficulties
- Statistical difficulties

### Factors determining national income:

There are a number of influences which determine the size of the national income in a country. The three main influences are :

- Quality and quantity of factors of production
- The state of technical know-how; and
- Political stability.

### National income and real income

When national income is expressed in terms of current prices, it is called National income, but when it is expressed in terms of constant prices prevailing in the base year; it is called Real income. The national income of a particular year when compared with the national income of the base year, will include the effect of two changes, viz.,

- Change in the production of goods and services; and
- Change in the price level or value of money.
  Per Capital real income= Real national income

Size of population

#### Uses of national income statistics:

- National income statistics are valuable instruments of economic analysis and a guide to economic policies to be pursued.
- NI statistics given an idea of the structure of the economy.
- ✤ NI estimates help us to study inter-sectoral growth.
- ✤ NI estimates enable us to study inter- class income distribution.
- NI estimates enable us to make international comparisons and the standard of living of the people.
- NI figures show the capacity of each country to bear some common burden of international institutions like the UNO.

- MANAGERIAL ECONOMICS
- CODE: 18KP1COELC01
- UNIT -2 PRODUCTION FUNCTION
- QUESTION PAPER PATTERN

Maximum Marks = 75 Time: 3 hours

Part A:10 X2 = 20(Two questions from each unit)

Part B: 5 x5 = 25(Either or type-one questions from each unit)

Part c :3 x 10 = 30 (one questions from each unit)

### **BOOKS FOR REFERENCE** :

1. Dr. S. Sankaran (Unit I,II,III,IV, V) : Managerial Economics, Margham publications, chennai.