Managerial Economics and financial Analysis

Unit I — Introduction + Managerial Economics

Economics :- It is a study of human activity both at individual and national level. It is considered as "Science of Wealth."

∴ Adam Smith, the father of economics, defined Economics as "the study of nature and uses of national Wealth."

Economics is defined as, "The science which studies human behaviour as a relationship between ends and scarce means which have alternative uses."
— Prof. Lionel Robbins.

Micro economics :-

The study of an individual consumer or a firm is called micro economics. It deals with behaviour and problems of single individual and of micro firm.

Macro economics :-

The study of aggregate & total level of economic activity in a country is called Macro economics. It deals with total aggregates, Price level in general, total employment, output and total investment.

Management :-

It is defined as, the Science and Art of getting things done through people in formally organised groups.

Features :- planning
Organising
Staffing
Directing
Controlling

Managerial Economics :-

Def :- ME is, "the integration of economic theory with business practice for the purpose of facilitating decision-making & forward planning by Management." — Spencer and Seigelman.

→ "the application of economic theory and methodology to business administration practice." — Brigham and Pappas.

→ "ME is a fundamental science which seeks to understand and to analyse the Problems of business decision-making" — Hague.

Nature of Managerial Economics :-

(a) close to micro economics — ME is concerned with finding the sol's for different managerial Problems of a particular firm.

(b) Operates against the backdrop of macro economics. — The macroeconomic conditions of the economy are also seen as limiting factors for the firm to operate.

(c) Normative statements : — A normative statement usually includes & implies the word "ought" & "should". The normatives are based on value judgements and express views of what is "good" or "bad", "right" & "wrong".

(d) Prescriptive actions — These are goal oriented. It suggests the course of actions from the available alternatives for optimal sol's. It also explains whether the concept can be applied in a given context & not.

:Applied in nature :-

Models are built to reflect the real life complex business situations and these models are of immense help to mgrs to do. The diff areas where models are extensively used include inventory control, optimisation, Project management etc,.

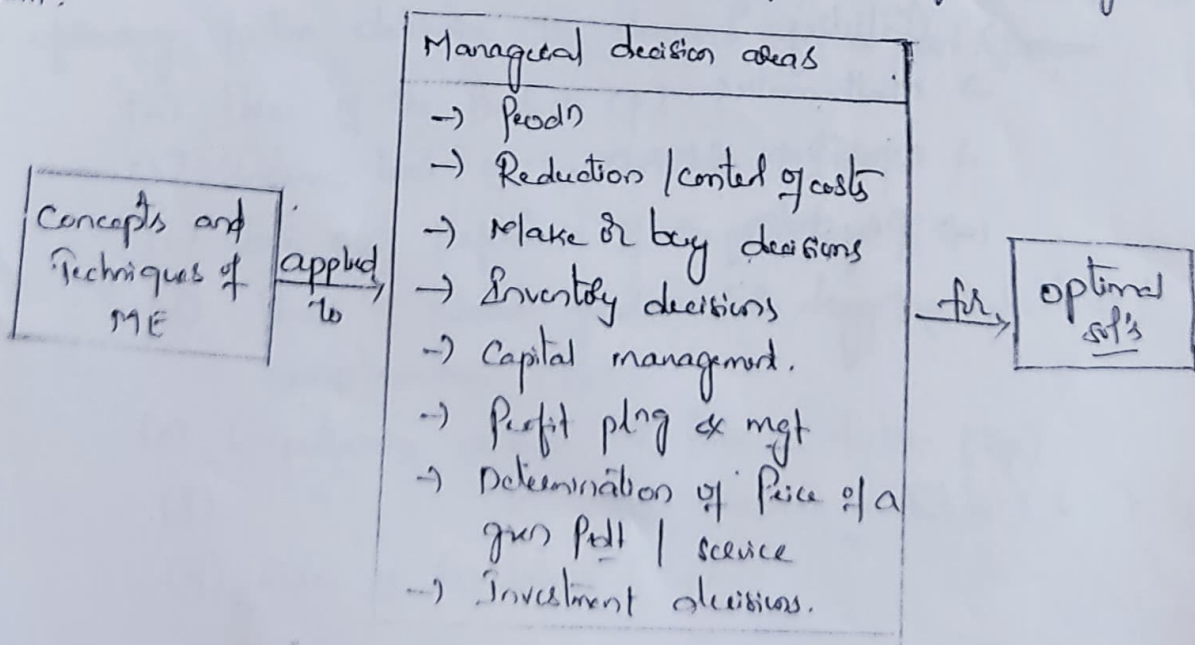(f) Scope to evaluate each alternative : -

ME Provides an opportunity to evaluate each alternative in terms of its costs and revenues. The managerial economists can decide which is the better alternative to maximise the Profits for the firm.

(g) Interdisciplinary -

The contents, tools and techniques of managerial economics are drawn from different subjects such as economics, Mgt, Mathematics, statistics, accountancy, Psychology, OB, Sociology etc

Scope of Managerial Economics : -

The main focus in managerial economics is to find an optimal solution to a given managerial Problem. The managerial economist makes use of the concepts, tools and techniques of economics and other related disciplines to find an optimal sol to a given managerial Problem.

| Concepts and Techniques of ME | applied to | Managerial decision areas
→ Prodn
→ Reduction /control of costs
→ Make or buy decisions
→ Inventory decisions
→ Capital management.
→ Profit plng & mgt
→ Determination of Price of a gvn Pdt / service
→ Investment decisions. | for | optimal sol's |

ME is concerned with the economic behaviour of the firm. slage of economic decision variable, certain assumptions are made. The concepts and techniques of economists set of framework within which the managerial economists functions.

The economist is concerned with analysis of the economy as a whole whereas the managerial economist is essentially concerned with making decisions in the context of a single firm.

Main Areas of ME :-

→ Decision Demand decision
→ Input - output decision
→ Price - output
→ Profit - related
→ Investment
→ Economic forecasting and forward plng.

ME - Multidisciplinary : -

→ Economics / ME is closely related / linked with many other disciplines such as

→ Economics
→ Accountancy
→ Statistics
→ Mathematics
→ Operations research
→ Psychology
→ Orgal Behaviour.

Demand Analysis

Demand :- A Pdt/service is, said to have demand when three conditions are satisfied

→ Desire to on the Part of the buyer to buy
→ willingness to pay for it
→ Ability to Pay .

Every want supported by the willingness and ability to buy constitutes demand for a particular Pdt (or) source.

Nature and Types of Demand :-

→ Consumer goods (vs) Producer Goods
→ Autonomous Goods (vs) Derived Goods
→ Durable (vs) Perishable Goods
→ firm (vs) Industry demand.
→ Short run (vs) longrun demand
→ New (vs) Replacement demand
→ Total mkt (vs) Segment market demand.

Factors determining Demand :-

The demand for a particular Pdt depends on several factors

The following factors determine the demand for a given product

(a) Price of the Product (P)

(b) Income level of the Consumer (I)

(c) Taste and Preferences of the consumer (T)

(d) Prices of related goods which may be substitutes / complimentary (PR)

(e) Expectations about the Price in future (Ep)

(f) "   "   The incomes in future (EI)

(g) Size of Population (Sp)

(h) Distribution of consumers over different regions (Dc)

(i) Advertising effects (A)

(j) Any other factors capable of affecting the demand. (O)

Demand function :-

Demand function is a function which describes a relationship between one variable and its determinants. The demand function for a good relates the quantity of a good which consumers demand during a given period to the factors which influence the demand.

Mathematically, the demand function for a Pdt A can be expressed as follows:

$$Qd = f (P, I, T, P_R, E_P, E_I, Sp, Dc, A, O)$$

where Qd = quantity of demand

P = Price of the Pdt

I = Income level of the consumer

T = Tastes and Preferences of the Consumer

P_R = Prices of related goods (Complimentaries)

E_P = future price expectations

E_I = Expectations about incomes in future.

Sp = Size of Population

Dc = Distribution of consumers over diff regions.

A = Advertising effects

O = other factors . .

Law of Demand :-

The law of demand states that, " other things remaining the Same, the amount of quantity demanded rises with every fall in the price and vice versa."

(3)

The law of demand states the relationship between price and demand of a particular pdt & service. It makes an assumption that all other demand determinants remain the same or do not change.

Assumptions of the law of Demand :-

"Other things remaining the same", is the assumption under the law of demand.

Exceptions :-

→ Where there is a shortage of necessities feared
→ Where the product is such that it confers distinction.
→ Giffen's paradox. (These does not have easily available substitute)
→ In case of ignorance of price changes
→ Velben goods. (Luxury goods. The qty demanded increases as the price increases, an apparent contradiction of law of demand)

Laws of Consumption :-

Consumption deals with the behaviour of consumers. The law of Consumption mainly describes law of Marginal utility and law of Equi-marginal utility.

Law of Diminishing marginal utility :-

The law of diminishing Marginal utility states that the marginal utility derived on the consumption of every additional unit goes on diminishing, other things remaining same. Marginal utility refers to the additional utility derived from consumption of an additional unit.

No. of Sweets	Amt of Total utility	Marginal utility
1	20	—
2	35	15
3	47	12
4	55	8
5	55	0
6	48	-7

This law holds good when other things remain the same.

Law of Equi-marginal utility :-

It states - that the consumer is in equilibrium when the marginal utilities obtained from the Pats bought are equal. In other words, the consumer maximises his total utility by allocating his income among the goods and services available to him in such a way that the marginal utility from one good equals the marginal utility from the other good.

$$\frac{\text{Marginal utility of Product X}}{\text{Price of X}} = \frac{\text{Marginal utility of Product Y}}{\text{Price of Y}}$$

The law of marginal utility explains the prerequisites for the consumer to be in equilibrium.

Elasticity of Demand :-

Defi- It is defined as, "the rate of responsiveness in the Quantity demande of a commodity for a given change in Price & any other determinants of demand."

In other words, it explains the extent of change in quantity demanded because of a given change in the other determining factors, may be price & any other factors.

Measurement of Elasticity :-

The Elasticity is measured by the following ways:

→ Pafectlly Elastic Demand
→ Perfectly Inelastic demand
→ Relatively Elastic demand
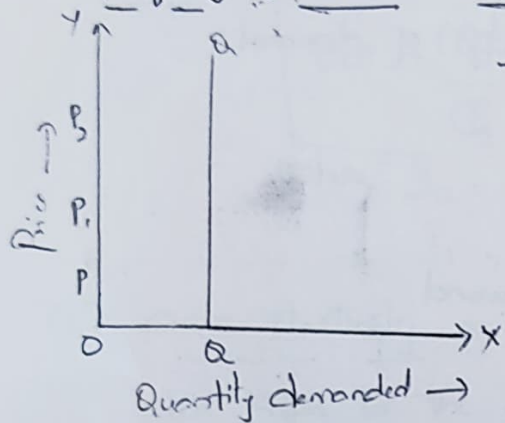→ Relatively Inelastic demand
→ unity / unitary Elasticity

Perfectly Elastic demand :-

When any quantity can be sold at a given price, and when there is no need to reduce price, the demand is said to be perfectly Elastic. In such cases, even a small increase in price will lead to complete fall in demand.

Quantity demanded
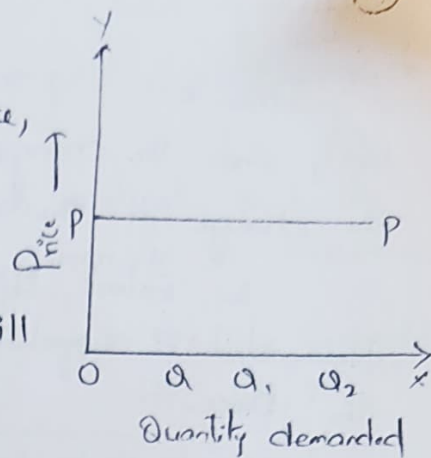
→ **Perfectly Inelastic demand :-**
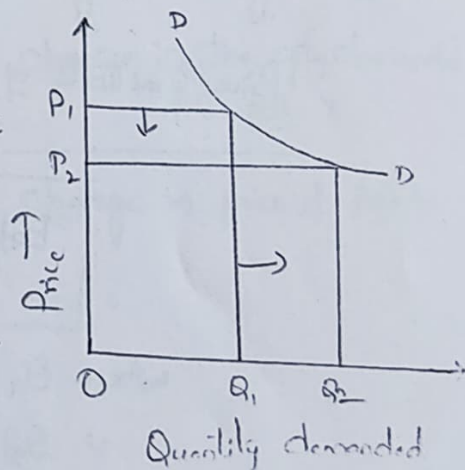

Quantity demanded →

The demand is said to be perfectly inelastic when there is no change in the quantity demanded even though there is a (big change) increase / decrease in price.

When a significant degree of change in price leads to little or no change in the quantity demanded, then it is said to be perfectly inelastic.
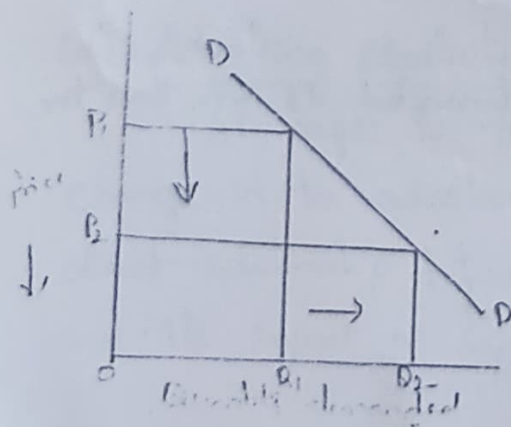
→ **Relatively InElastic Demand :-**

The demand is said to be relatively elastic when the change in demand is more than the change in the price. The extent of increase in the quantity demanded is greater than the extent of fall in the price.

Quantity demanded

→) **Relatively Inelastic demand :-**

The demand is said to be relatively inelastic when the change in demand is less than the change in the price.
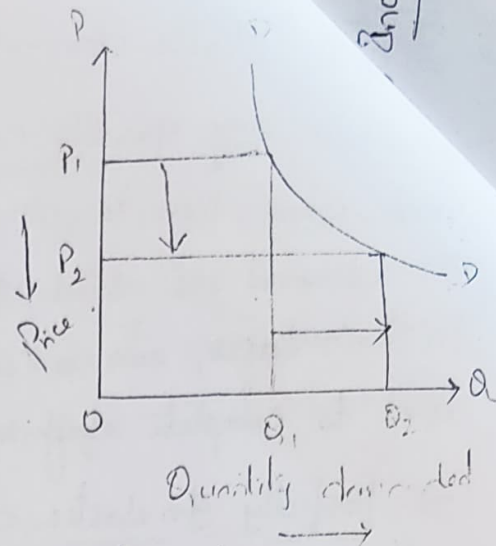
The extent of increase in the quantity demanded is lesser than the extent of fall in the price.

→ Unitary Elastic :-

The Elasticity in demand is said to be unity when the change in demand is equal to the change in the price.

The Extent of increase in the quantity demanded is equal to the extent of fall in the price.

Types of Elasticity :-

The following are the four types of elasticity of demand:

(a) Price Elasticity of demand
(b) Income Elasticity of demand
(c) Cross Elasticity of demand
(d) Advertisement Elasticity of demand.

(a) Price Elasticity of demand :- (Edp > 1)

It refers to the quantity demanded of a commodity in response to a given change in price.

Price Elasticity of demand = $\dfrac{\text{Proportionate change in the qty demanded for Pdt X}}{\text{Proportionate change in the price of X}}$

$$\boxed{E_{dp} = \dfrac{(Q_2 - Q_1)/Q_1}{(P_2 - P_1)/P_1}}$$

where Q_1 = Qty demanded before price change
Q_2 = " " after price change
P_1 = Price before change.
P_2 = " after change.

when the Proportionate change in qty demanded is more than the Proportionate change in price. (e > 1)

Interpretation :- for ED > 1, elastic demand
ED = 1, unitary elastic demand
ED < 1, inelastic demand.

Income Elasticity of Demand :-

It refers to the quantity demanded of a commodity in response to a given change in the income of the consumer.

Income elasticity is normally positive, which indicates that the consumer tends to buy more and more with every increase in income.

Income Elasticity of Demand = $\dfrac{\text{Proportionate change in the qty demanded for Pd! X}}{\text{Proportionate change in income.}}$

$$Edi = \dfrac{(Q_2 - Q_1)/Q_1}{(I_2 - I_1)/I_1}$$

where I_2 = Income after change
I_1 = " before change.

(c) Cross Elasticity of Demand :-

It refers to the quantity demanded of a commodity in response to a change in the price of a related good, which may be Substitute & complement.

Cross Elasticity of demand = $\dfrac{\text{Proportionate change in the qty demanded for Pd! X}}{\text{Proportionate change in price of Pd! Y.}}$

$$Edc = \dfrac{(Q_2 - Q_1)/Q_1}{(P_2 Y - P_1 Y)/P_1 y}$$

Where $P_1 Y$ = Price before change of Pd! Y
$P_2 Y$ = " after " " " "

(d) Advertising Elasticity :-

It refers to the increase in the Sales revenue because of change in the advertising expenditure. In other words, there is a direct relationship between the amount of money Spent on advertising and its impact on Sales. It is always +ve.

Advertising elasticity $= \dfrac{\text{Proportionate change in qty demanded}}{\text{Proportionate change in advertisement cost}}$

$$\boxed{E_{da} = \dfrac{(Q_2 - Q_1)/Q_1}{(A_2 - A_1)/A_1}}$$

where $A_1 =$ Amount spent on advertisement before change

$A_2 =$ Amount spent on advertisement after change.

The advertising elasticity is said to be high when even a small % change in the advertising expenditure results in a large %. of change in the level of quantity demanded or sales.

Factors governing Elasticity of Demand :-

Elasticity is governed by a no. of factors. change in any one of these factors is likely to affect the elasticity of demand.

(a) Nature of Product

(b) Time frame

(c) Degree of Postponement

(d) No of alternative uses

(e) Tastes and Preferences of the Consumer

(f) Availability of close Substitutes

(g) Complementaries (8) Joint goods

(h) Level of Prices

(i) Availability of Subsidies

(j) Expectation of Prices

(k) Durability of the Product

(l) Government policy.

nce :-

It is a very valuable tool to decide the extent of decrease of increase in price for a desired change in the quantity demanded for the pdts and services in the firm.

→ Prices of factors of Production
→ Price fixation
→ Government policies
  → Tax policies
  → Raising bank deposits
  → Public utilities
  → Revaluation or devaluation of currencies
  → formulating government policy.

→ forecasting demand
→ planning the levels of output and prices.

Demand forecasting :-

Forecasting helps to assess the likely demand for pdts and services and to plan prodn accordingly. Demand forecasting is helpful not only at the firm level but also at the national level.

Types of forecasts :-

Based on the period, the demand forecast can be of two types
  (a) short run forecasts
  (b) longrun forecasts.

Short run forecasts covers a period of one year whereas long-run forecasts cover any period ranging from one year to 20 years.

forecasting level :-

The forecasting may be at the firm level, national level or at the global level.

At firm level, the demand for pdts and services offered by a firm are estimated

At industry level, the aggregate demand for goods and service of all the firms can be estimated.

→ National level forecasts is for the whole economy, it is [...]
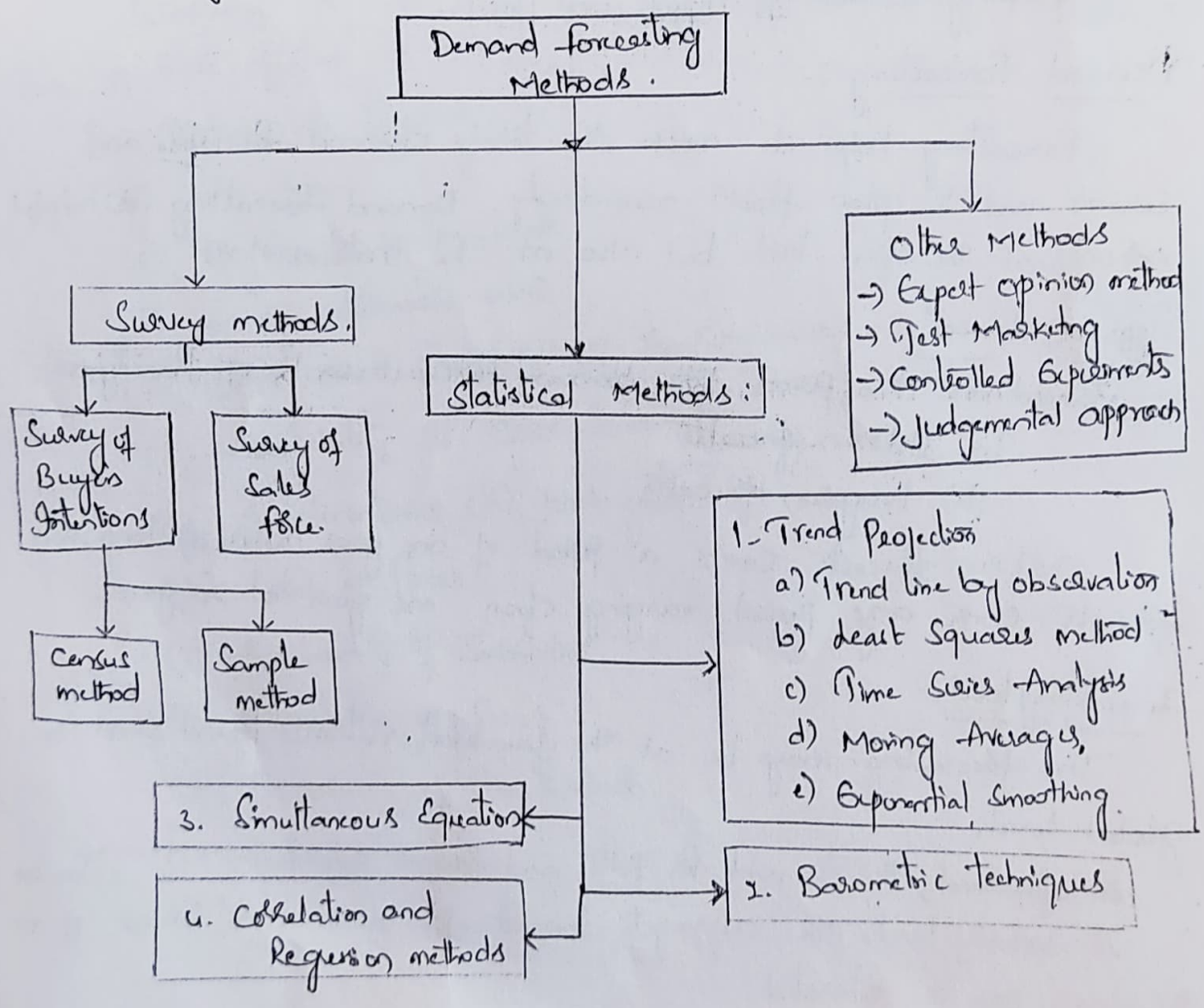   The levels of income, savings etc,.

Demand
  Degree of Orientation:-
     Forecasts in terms of total sales can be viewed as general forecasts,
  whereas pdt/service-wise (sales for a-given time period,) or region. or
  customer segment --wise forecast is referred to as specific forecast.
     Demand forecasts can be worked out based on total sales or
  pdt / service -wise sales for a given time period.

  Methods of Demand forecasting:-
     To forecast demand, we need to build a certain base of info.
  There are many methods of forecasting demand that can be grouped under
  (a) Survey methods and (b) statistical Methods.

Demand forecasting Methods.

Survey methods.
- Survey of Buyers Intentions
- Survey of Sales force
  - Census method
  - Sample method
- 3. Simultaneous Equations
- 4. Correlation and Regression methods

Statistical Methods:
1. Trend Projection
   a) Trend line by observation
   b) Least Squares method
   c) Time Series Analysis
   d) Moving Averages,
   e) Exponential Smoothing.
2. Barometric Techniques

Other Methods
→ Expert opinion method
→ Test Marketing
→ Controlled Experiments
→ Judgemental approach

Survey Methods :

Survey of Buyer's Intentions :-

The Survey of buyers can be conducted either by covering the whole population or by selecting a sample group of buyers. It is better to draw a list of potential buyers, approaching and drawing opinion on a particular pdt at a given point of time under particular conditions.

Advantages :-
→ for newly entered pdts where there exists no data.
→ less no of buyers and accessable.
→ Cost of reaching buyers is not significant.
→ when consumers sticks to their intentions.

Disadvantages :
→ Surveys may be expensive
→ Sample size and timing of Survey
→ Methods of Sampling.
→ Inconsistent buying behaviour.

(b) Sales-force Opinions :-

The Sales people are those who are in constant touch with the main and large buyers of a particular mkt, and hence they constitute another valid source of info about the likely sales of pdt.

2. Statistical Methods :-

(a) Trend Projection Methods :-

These are generally based on analysis of past sales patterns. These methods dispense with the need for costly mkt research because the necessary info is often available by co, in terms of diff time periods, that is a time series data. There are five main techniques of mechanical extrapolation.

(i) **Trend line by observation:-**

This method of forecasting trend is elementary, easy and as it involves merely the plotting the actual sales data on a ch... and then estimating just by observation where the trend line lies.

The line can extend towards a future period and correspond...

Sales forecast.
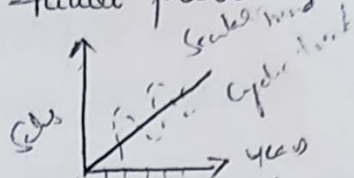
(ii) **Least Squares Method:-**

It is assumed that there is a proportional (linear) change in sales over a period of time. The trend line is the basis to extrapolate the line for future demand for the given pdt/service on graph. In such case, the trend line eqn is in linear form.

The estimating linear trend eqn of sales is written as,

$$S = x + y(T), \quad Y = a + bx$$

where x and y have been calculated from past data

S → Sales

T → The year no for which the forecast is made.

$$\Rightarrow \quad \textstyle\sum S = Nx + y \sum T$$
$$\textstyle\sum ST = x \sum T + y \sum T^2 \quad [\text{only} \cdots]$$

where, N = No of years

Ex:-

Years	1996	1998	2000	2002	2004
Sales (Rs in lakhs)	75	84	92	98	88

Estimate the sales for the years 2006 and 2008?

Sol:-

$$\textstyle\sum S = Nx + y \sum T$$
$$\textstyle\sum ST = x \sum T + y \sum T^2$$

Now, determine $\sum S$, $\sum ST$, $\sum T$ and $\sum T^2$

Year	Year no. (T)	Sales (S) (Rs in lakhs)	ST	T²
1992	1	75	75	1
1994	3	84	252	9
1996	5	92	460	25
1998	7	98	686	49
2000	9	88	792	81
	$\Sigma T = 25$	$\Sigma S = 437$	$\Sigma ST = 2265$	$\Sigma T^2 = 165$

Substitute the above values in Eqns, 1 & 2, we get

$$\Sigma S = Nx + \Sigma T \rightarrow 437 = 5x + 25y$$

$$\Sigma ST = x \Sigma T + y \Sigma T^2 \rightarrow 2265 = 25x + 165y$$

By solving the above Eqns, we get

$$y = 2, \quad x = 77.4$$

By Substituting these values in the trend equation $x+y(T)$

$$S_{2002} = 77.4 + 2(11)$$

$$= 99.4 \quad \text{Lakh units}$$

$$S_{2004} = 77.4 + 2(13)$$

$$= 103.4 \text{ lakh units.}$$

(iii) Time Series Analysis :-

Time Series emerge from such a data when arranged the below chronologically, where the surveys & market tests are costly and time-consuming, statistical and mathematical Analysis of past sales data offers another method to prepare the forecasts, that is, time series analysis. The major thing in this method is obtaining the past data. It is analysed from the below four components

(a) Trend (T)

(c) Seasonal trend (s)

(b) Cyclic Trend (c)

(d) Erratic trend (E)

Trend (T) is also called long term trend, is the ......
basic developments in the population, capital of trade.

Cyclic trend (C), is considered to a wave like movement ......
sales. The sales data is quite often affected by swings in
the levels of general economic activity, which tend to be periodic.

Seasonal trend (S), It is periodic and the sales are of
consistent pattern. It is related to holidays, weather conditions,
Geographical factors and so on.

Eratic trend (E), It is because of the result of Sudden
strikes, lockouts, etc, It even damage the impact of Systematic
components and thus making the forecasting more complex.

The classical time series Analysis (Y) is given by

$$Y = T \times C \times S \times E$$

(iv) Moving average method :-

It considers the average of Past events determine the
future events. This method provides consistent results when the
Past events are consistent and unaffected by wide changes.

In this method, the average keeps on moving depending upon
the no of years selected. Selection of the no of years is
the major factor in this method. It is easy to compute as
the past data can be dispensed, once the avg's are
computed.

Ex: compute 3-day moving avg from the following
daily sales data:

Date of month	Daily sales (Lakhs of tonnes)	3-day moving average
1	40	
2	44	
3	48	
4	45	44
5	53	45.7

Sol:

$$S_4 = \frac{40 + 44 + 48}{3} = 44$$

$$S_5 = \frac{44 + 48 + 45}{3} = 45.7$$

(V) Exponential Smoothing :-

This method is an improvement of over Moving average method unlike in moving averages, method, all time periods ranging from the immediate past to distant past) here are given varying weights. It is more popular technique used for short run forecasts.

The formula used for exponential smoothing is,

$$S_{t+1} = CS_t + (1-C) S_{mt}.$$

where S_{t+1} = Exponentially Smoothed avg for new year.

S_t = actual data in the most recent past.

S_{mt} = most recent Smoothed forecast

C = Smoothing Constant.

If 'c' is higher, higher weight is given to the most recent information. and 'c' varies from 0 to 1.

Eg:- The concept of exponential smoothing.

Time period	Actual Sales (S_t) (units in lakhs)	Predicted Sales (units in lakhs)
1	5.0	
2	5.6	
3	6.7	
4	5.8	
5	6.9	5.775
6	5.1	5.887
7	8.1	5.805

Sol:-

Let us take four period avg as the initial forecast
year 5 while smoothing constant of $c = 0.1$

$$S_5 = \frac{(S_1 + S_2 + S_3 + S_4)}{4}$$

$$= \frac{(5.0 + 5.6 + 6.7 + 5.8)}{4}$$

$$= \frac{(23.1)}{4} = 5.775.$$

Sales for $S_5 = 6.9$; S_6 is calculated as given below.

$$S_6 = c S_5 + (1-c) S_{mt}$$

$$= 0.1 (6.9) + (1-0.1) 5.775$$

$$= 0.69 + 5.1975$$

$$= 5.887.$$

Similarly, Predicted sales for year 7 is,

$$S_7 = c S_6 + (1-c) S_{mt}$$

$$= 0.1 (5.1) + (1-0.1) 5.8875$$

$$= 0.51 + (0.9) 5.8875$$

$$= 0.51 + 5.298 = 5.808$$

Barometric techniques

Since, time series & extrapolation may not give the best results, barometric methods are recommended. Under, this technique, one set of data is used to predict another set.

(c) Simultaneous Equation Method :-

In this method, all variables are simultaneously considered, with the assumption that every variable influences the other variables in an economic environment. Hence, the set of Equations equal the no of dependent, (controllable) variable which is called as 'endogeneous' variables.

In other words, it is a system of 'n' equations with 'n' unknown variables. It is an complete systems approach to demand forecasting.

(d) Correlation and Regression Methods :-

Correlation and Regression methods are statistical techniques. Correlation describes the degree of association between two variable such as Sales and advertisement expenditure. when one is increased ie, Advt cost then sales will also gets increased.

In Regression analysis, an Equation is estimated which best fits in the sets of observations of dependent variables and independent variables. The dependent variable is then forecast based on this estimated Equation, for a given value of the independent variable.

other methods :-

(a) Expert opinion :-

An expert is good at forecasting and analysing the future trends in a given Product or Service at a given level of tech.

→ The Results are more reliable

→ Independent forecasts are very quick and cheap.

(b) Test Marketing :-

A small market representing all the features of the wide market constitutes an ideal place to conduct test marketing. In test marketing, the entire Product and mktg is bi carried out for the in a small no of Well choosen and authentic Sales envt.

→ Product design can be redesigned without delay.

→ The acceptability and Judgement can be done in a limited mkt

→ Reveals the quality, of the Pdt

→ Not Easy to Select a representative audience mkt

(c) Controlled Experiments :-

These refers to such experiments where some of the major determinants are manipulated to suit to the customer with diff tastes and Preferences, income levels, etc. It is used to know the effect of change in some demand determinants like Price, Product, design, advertisement, Packaging and so on.

→ It is costly and time Consuming

→ failure in one mkt leads to overall failure in other mkts also.

(d) Judgemental approach:-

When the above methods does not relate to the given path or service directly, the mgt has no alternative other than deciding on their own. But along with the above methods, the forecasting process has to follow the factor of Judgement because:

→ long period Historical data unavailability.

→ Sales fluctuations are wide and significant.

→ The results are more helpful at the national level than at firm level.

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Production and cost-Analysis.

Introduction :

The Process of Conversion of Inputs (or) Raw materials into finished goods (or) End Products is Called Production.

Productivity is the ratio of output and input.

$$Productivity = \frac{Output}{Input}.$$

Production function : Def :-

" It is the technical relationship which reveals the maximum amount of output capable of being Produced by each and every set of inputs. " It is defined for a given set of state of technical knowledge.

— Samuelson.

Miachel R Baye defines Production function as, " that function which defines the maximum amount of O/p that can be produced with a given set of inputs. "

This Production function is also called as Input-out Put relationship.

Input -output Relationship (&) Production function :

The inputs for any Product or Service are land, labour, capital, organisation and technology. Mathematically, it is expressed as,

$$Q = f(L_1, L_2, C, 0, T)$$

Where Q = Quantity of Production

L_1 = Land

L = Labour
C = Capital
O = Organisation
T = Technology.

Production function with one variable input and law of Returns :

The Laws of Returns states that when atleast one factor of Production is fixed or factor input is fixed and When all the other factors are Varied, the total output in the initial stages will increase at an increasing rate, and after reaching Certain level of o/p the total o/p will increase at declining rate. If variable factor inputs are added further to the fixed factor i/p, the total outlay may decline.

This law is of universal nature and is Proved to be true. The Law of Returns is also called the Law of Variable Proportions or the law of diminishing returns.

In the short run it is that concerned that the capital is a fixed factor i/p and labour is Variable i/p.
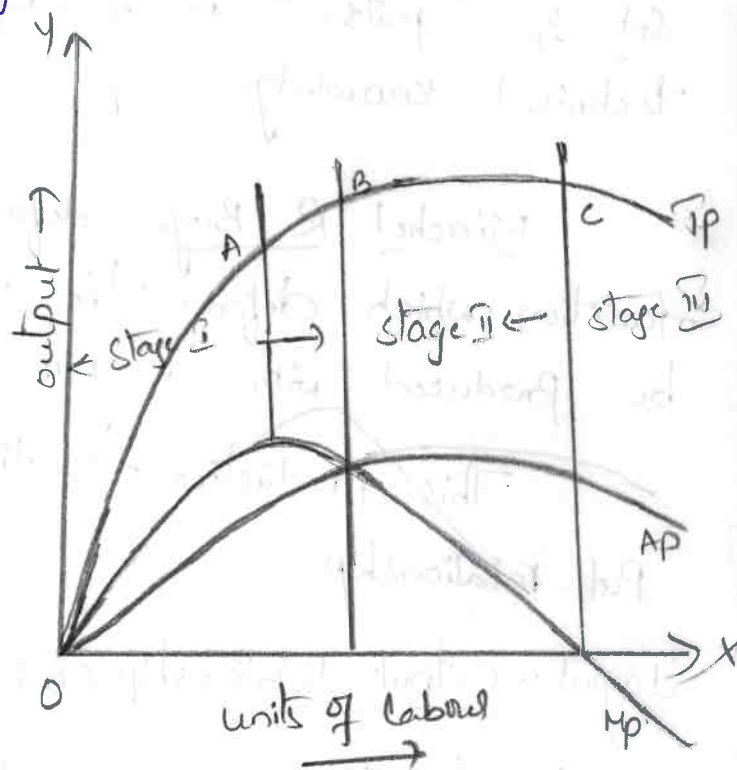
In the Initial stages, o/p increases at an increasing rat because Capital is grossly under utilised.

Productivity will increase up to a Point A when more and

and more units of labour are increased. After point A, o/p increases at an declining rate till it reaches the max at Point C. After point C, the total o/p declines and the marginal P.d.t of labour is negative.

This indicates the additional units of labour are not Contributing any thing Positively (+vely) to the total o/p.

Production function with two variable inputs and Law of Returns:

The Prod^m function based on two i/p's can be expressed as,

$$Q = f(C, L)$$

Where c → capital

Q → Quantity of output

L → Labour.

Here we restrict the no of inputs to two o/p's only.

Generally, both capital and labour are required to Produce a P.d.t. To Some extent, these two i/p's can be Substituted for each other. Hence, the Producer may choose any Combination of labour and capital out of several such Combinations.

The alternative combinations of labour and capital yielding a given level of o/p are such that, if the use of one i/p factor is increased, that of another will decrease and vice - versa.
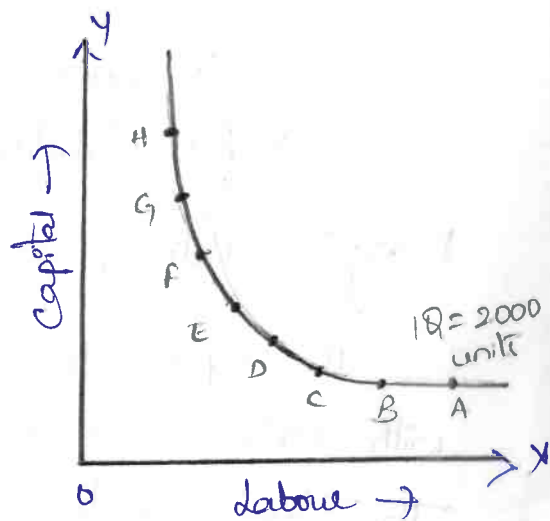
Isoquants :

Iso means "equal" and quant means "quantity"
Isoquants means that the quantities, throughout a given isoquant
are equal. Isoquants are also called "Isoproduct curves".

An isoquant curve shows various combinations of two i/p
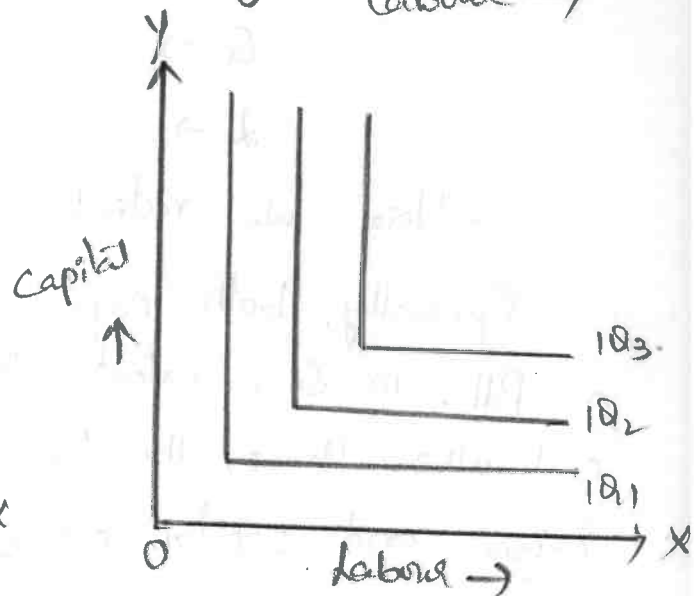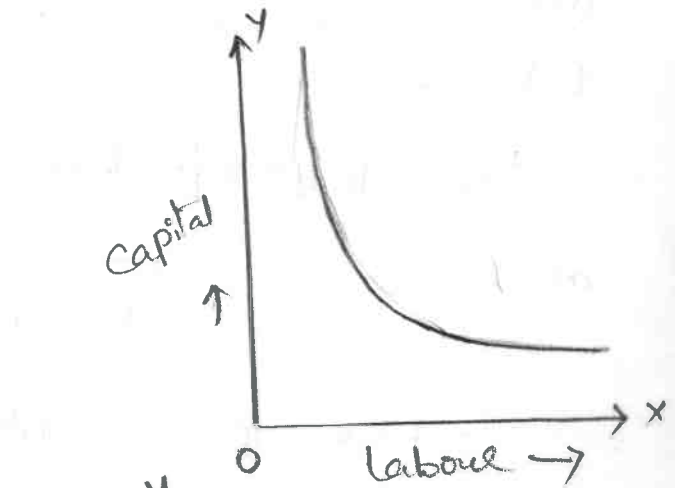factors such as capital and labour, which yield the same
level of output.

An isoquant curve is also called "Product indifference curve."

features :

→ Down ward sloping
→ Convex to origin
→ Do not intersect
→ Do not touch the axes.

$IQ_3 = 40,000$
$IQ_2 = 30,000$
$IQ_1 = 20,000$
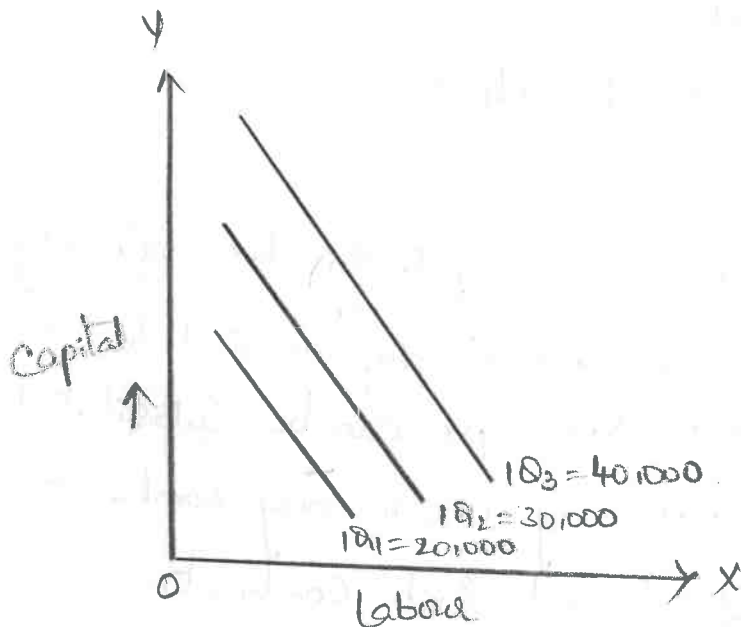
Isoquants where i/p factors are
Perfect Substitutes

IQ_3
IQ_2
IQ_1

Isoquants where i/p factors
are not Perfect Substitutes.

Marginal Rate of Technical Substitution (MRTS) :—

It refers to the rate at which one input is Substituted
with others to attain a given level of output. In other words,
the lesser units of one input (i/p) must be Compensated

by increasing amounts of another i/p to produce the same ③
level of o/p.

Combinations	Capital Rs (in lakhs)	Labour	MRTS.
A	1	20	–
B	2	15	5:1
C	3	11	4:1
D	4	8	3:1
E	5	6	2:1
F	6	5	1:1

Iso costs :

Iso cost refers to that cost curve that represents the combination of inputs that will costs the Producer the same amount of money.

Each isocost denotes a particular level of total cost for a given level of Prod^n.

If the level of Prod^n changes, the total cost changes and thus the iscost curve moves upwards and vice versa.
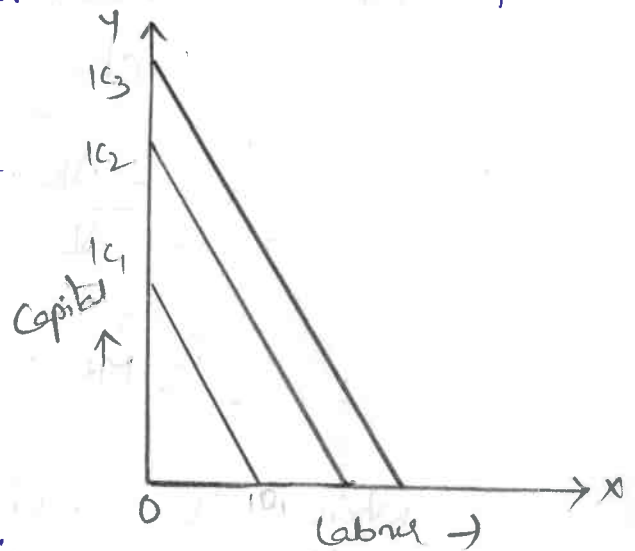
Iso costs representing diff levels of total cost.

Least cost combination of Inputs (i/p's) :

The Isocosts and Isoquants can be used to determine the input usage that minimises the cost of Prod^n. where the slope of Isoquant is equal to that of Isoq

iscost, there lies the lowest point of cost of Prod^n. This can be observed by superimposing the iscosts on iso product curves (isoquants)

The points of tangency P,Q & R on each of the isoquant curves represents the least cost combination of inputs, yielding max level of o/p.

Any o/p lower or higher than this will result in higher cost of Production.
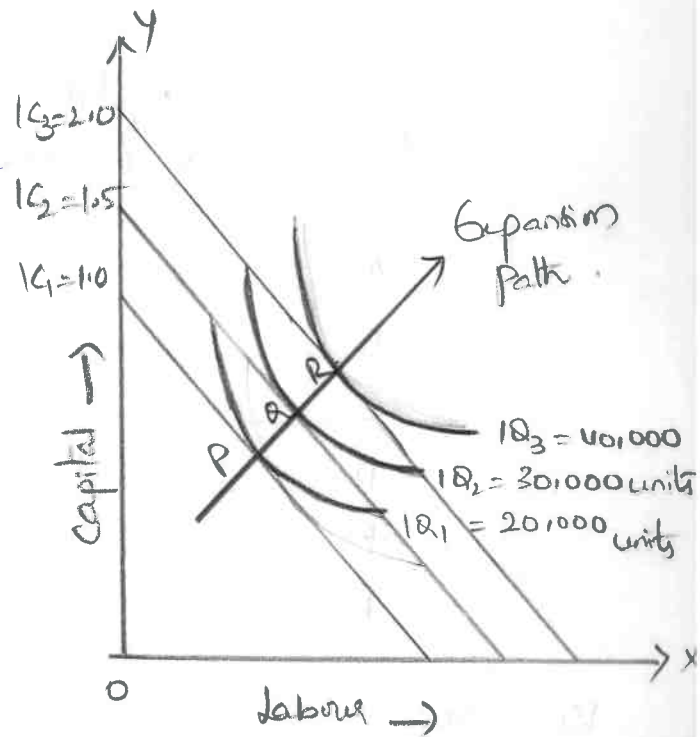
$$MRTS = \frac{\text{change in one input}}{\text{change in another input.}}$$

$$= \frac{-\Delta k}{\Delta L.}$$

$$\therefore \boxed{MRTS = \frac{-\Delta k}{\Delta L}}$$

where $\Delta k \rightarrow$ change in Capital
        $\Delta L \rightarrow$ change in labour.

The Substitution of one i/p for the another continues untill the producer reaches the point of P,Q and/or R. where the MRTS between the inputs is equal to the ratio between the prices of inputs. Thus, at the point of equilibrium, lies the "expansion Path".

The expansion path is also called "scale line."

COBB - Douglas Production function :

The cobb - Douglas Production function can be determined by,

$$P = b \cdot L^a c^{1-a}$$

Where, P = total output

L = Labour

C = Capital

a, 1-a = elasticities of Production.

The prod^n function shows that one Percent change in labour i/p, capital remaining the same, is associated with 0.75 percent change in the output. Similarly, one Percent change in capital, labour remaining the same, is associated with a 0.25 percent change in o/p.

$$P = 1.01 \ L^{0.75} \ c^{0.25}$$

$$R^2 = 0.9409.$$

Returns to Scale and Returns to factor :

Returns to scale refa to the returns enjoyed by the firm as a result of change in all the inputs. The returns to scale are governed by laws of returns to scale.

Law of Returns to Scale :

There are three laws of returns governing Production function. They are.

→ laws of Increasing Returns to scale

→ law of Constant Returns to Scale

→ law of Decreasing / Diminishing Returns to scale.

→ **Law of Increasing Returns to Scale** :-

This law states that the volume of output keeps on

increasing with every increase in the input. At this stage, the increasing rate of output will be greater than the increasing rate in inputs.

→ Law of constant Returns to scale :-

If the increasing rate in output is equal to the increasing rate in i/p, the returns are called constant returns. When a firm expands its size of o/p, the returns remain constant after a certain stage. Hence these are called constant returns to scale.

→ Law of Decreasing Returns to scale (or) Diminishing Returns :

Where the proportionate increase in the i/p's does not lead to equivalent increase in o/p, the o/p increases at a decreasing rate, the law of decreasing returns to scale is said to be operated.

Scale of Production (units of labour + capital)	Total Production (units of goods)	Returns to scale
1 labour + 2 capital 2L + 4C 4L + 8C	10 25 } 60	Increasing
8L + 16C 16L + 32C	120 } 240	Constant
32L + 64C 64L + 128C	400 } 700	Diminishing
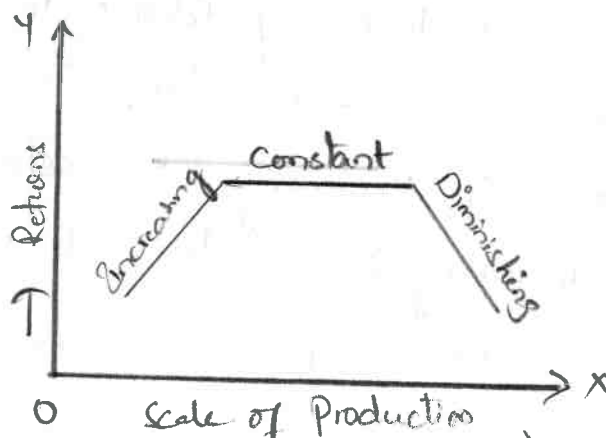
Returns to factors:

Returns to factors are also called factor productivities. Productivity is the ratio of output to the input. The Productivity of a Particular factor is measured with the assumption that the other factors are not changed or remain unchanged.

Returns to factors refer to the output or return generated as a result of change in one or more factors, keeping the other factors unchanged.

The change in productivity can be measured as,

(a) Total productivity - The total o/p generated at varied levels of input of a Particular factor, is called Total product (or) Total physical product.

(b) Average Productivity - The total physical pdt is divided by the number units of that particular factors used yields average productivity.

$$\text{Avg Productivity} = \frac{\text{Total Product}}{\text{units of factors}}$$

(c) Marginal productivity - The Marginal physical pdt is the additional o/p generated by adding an additional unit of the factor under study, keeping the other factors constant.

The total physical pdt increases at an increasing rate because of the law of increasing returns to scale, and later its rate of increase declines because of the law of decreasing returns to scale.

Economies and diseconomies of Scale:

The economies of scale result because of increase in

the Scale of Production. Alfred Marshall divides the economics of Scale into two as Internal and External.

Internal Economics:

Internal economies refer to the economies in production costs which accrue to the firm alone when it expands its output. The internal economies occur as a result of increase in the Scale of Production.

The internal economies may be of the following types.

(a) Managerial Economies
(b) Commercial Economies
(c) Financial Economies
(d) Technical Economies
(e) Marketing Economies
(f) Risk-bearing Economics
(g) Indivisibilities and Automated Machinery.
(h) Economics of larger dimension.
(i) Economics of Research and Development.

External Economics:-

External economics refer to all the firms in the industry, because of growth of the industry as a whole or because of growth of ancillary industries.

External economics benefits all the firms in the industry as the industry expands. This will lead to lowering the cost of Production and thereby increasing the Profitability.

These are of three types:
Economics of Concentration
Economics of R&D
Economics of Welfare.

Cost Analysis

Cost refers to the expenditure incurred to produce a Particular Product or Service. Costs may be monetary or non-monetary, tangible or intangible, determined subjectively or objectively.

The cost of Prod^n normally includes the cost of raw materials, labour and other expenses. This is known as Total Cost (T_c), the total revenue (T_R) depends on the sale of Pdts Manufactured.

The difference between the total revenue and total cost is termed as profit.

$$\therefore \boxed{Profit = T_R - T_c}$$

Cost Concepts :—

In order to go for decision-making, the need of the costs are to be analysed and understood in a wider Perspective.

The following are the possible variations in the concept of cost.

(i) long run (vs) short run

(ii) fixed costs (vs) variable costs

(iii) Semi-fixed (vs) Semi variable costs

(iv) Marginal cost

(v) Controllable (vs) un/Non-controllable costs

(vi) Opportunity costs (vs) outlay costs

(vii) Incremental costs (vs) Sunk costs

(viii) Explicit (vs) Implicit costs

(ix) out-of-pocket (vs) Book costs

(x) Replacement costs (vs) Historical costs

(xi) Past costs (vs) future costs

(xii) Seperable costs (vs) Joint costs

(xiii) Accounting (vs) Economic Costs

(xiv) urgent costs (vs) Postponable costs

(xv) Escapable costs (vs) unavoidable costs,

Basis of distinction among cost concepts :-

The basis of distinction, in respect of each of the above cost concepts, is outlined as follows:

Cost Concepts	Basis of Distinction
1. Short run (vs) long run costs	→ Time factor involved in adapting to Present output.
2. Variable (vs) fixed costs	→ Degree of variability.
3. Opportunity (vs) outlay costs	→ Nature of Sacrifice.
4. Past (vs) future costs	→ Degree of anticipation.
5. Seperable (vs) Joint costs	→ Traceability to unit of Operation.
6. Out-of-pocket (vs) Book costs	→ Involvement of cash flow.
7. Incremental (vs) Sunk cost	→ Increase in the level of activity.
8. Escapable (vs) unavoidable	→ Degree of compulsion.
9. Controllable (vs) Non-Controllable costs	→ Degree of Controllability.
10. Replacement (vs) Historical Costs	→ Timing of valuation.
11. urgent (vs) postponable	→ Degree of urgency.

Cost - output Relationship :-

The costs and outputs are related. The cost of production depends upon Several factors Such as volume of production, relationship between the costs and outputs; Prices and Productivity of the inputs such as land, labour, Capital

and so on and time scale.

The cost-o/p r/p significantly differs in short-run and in the long run. It is because, in the short-run, the costs can be classified into fixed costs and variable costs.

The cost-o/p r/p in the short-run is governed by certain restrictions in terms of fixed costs. whereas in the long-run, the cost-o/p r/p studies the effect of varying in size of plants upon its costs.

cost-o/p r/p facilitates many managerial decisions such as,

→ Expense control
→ Profit Prediction
→ Pricing
→ Promotion
→ formulating a rational policy in plant size and the standards of operation.

Costs in short-run:-

costs in the short-run are classified into fixed and variable costs. The fixed costs can be ascertained in terms of total fixed cost and average fixed costs (TFC & AFC), total variable costs (TVC)

From the table it is clear that :-

→ TFC remain fixed irrespective of inc (or) dec in prodⁿ activity.
→ Avg FC per unit declines as the vol of prodⁿ increases.
→ The Tc increases with the vol of prodⁿ.
→ Mc is the change in the Tc resulting from a unit change in o/p

It can be observed that as the o/p goes on increasing, Afc will continue to decrease. Hence, Afc curve will slope down wards and it appears to meet the x-axis but it will never meet it.

The Avc is a u-shaped curve which denotes that the Avc curve tends to fall in the beginning when the o/p is increasing but after a particular level of o/p, it rises because of the application of law of Returns or law of variable Proportions. Hence, with the increase in o/p, the ATC curve will be distancing itself from the Afc curve.

The marginal cost curve is also a u-shaped curve. It falls in the beginning and rises sharply. The rising marginal cost curve will pass through the min point of the Avc and the min point of ATC at R and s respectively.

monthly output (units)	Total fixed Cost (TFC) RS	Total variable Cost (TVC) RS	Total cost RS	Avg fixed cost (AFC) RS	Avg variable cost (AVC) RS	Avg total cost (ATC) RS	Marginal cost (MC) RS
a	b.	e	d=b+c	e= b/a	f=c/a	g=d/a	'h'
0	100	0	100	—	—	—	—
1	100	30	130	100	30	130	30
2	100	54	154	50	50 ^{27}	77	24
3	100	72	172	33.3	3 ^{24}	57.3	18
4	100	96	196	25	24	49	24
5	100	150	250	20	30	50	54
6	100	216	316	16.6	36	52.6	66
7	100	320	420	14.2	45.7	69.9	104

upgrade, and import Technology, R&D etc., It has no fixed costs. All are variable costs. Hence, the long-run costs refer to the costs of producing different levels of o/p by changing the scale of production.
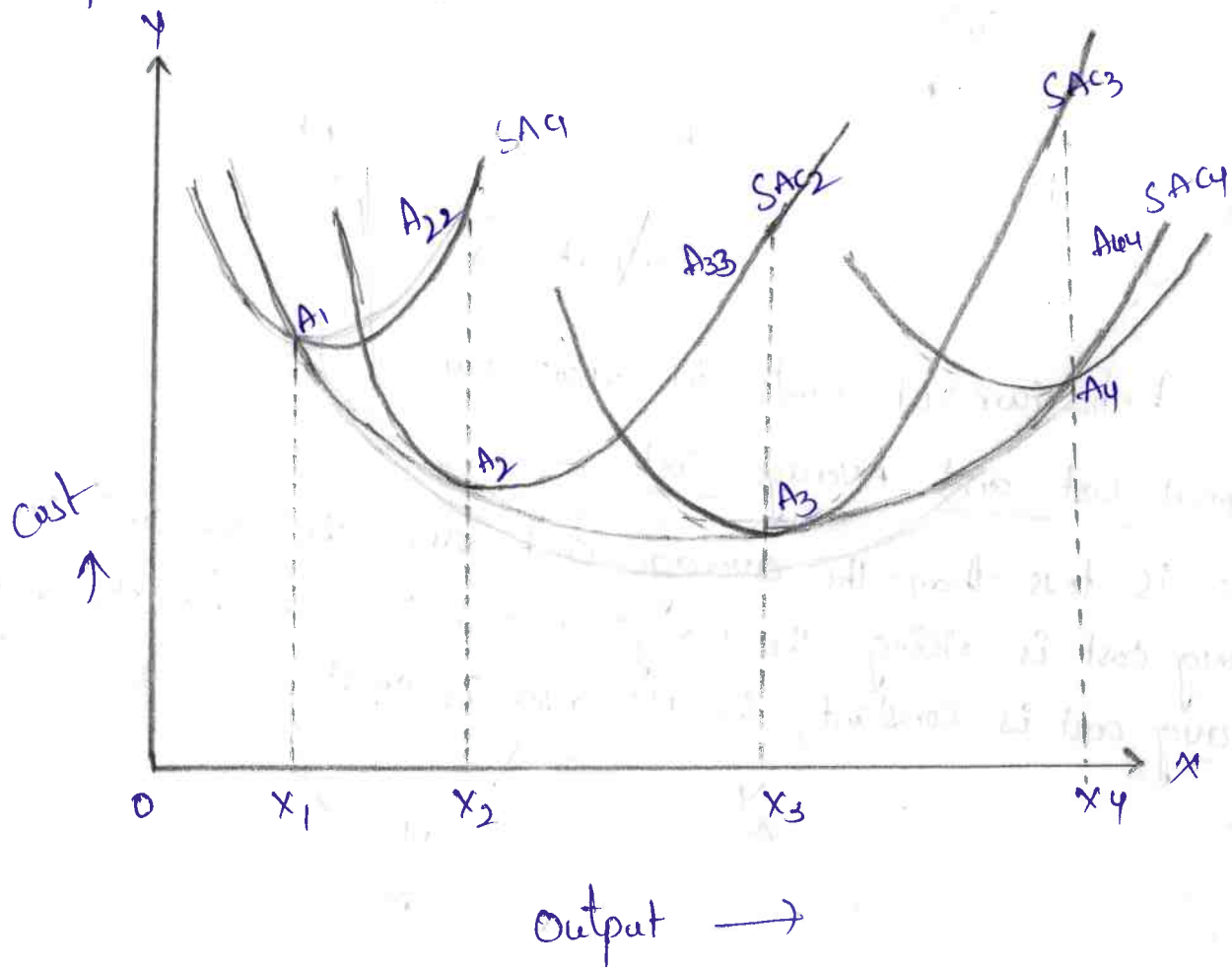

long-run average cost (LAC) curve enveloping a series of SAC's

The long-run avg cost curve (LAC) is a flat u-shaped curve. It is tangential to all the SAC's. Each of the SAC is an operating curve, which decides the current prod^n level. The LAC is a plng curve. The u-shape implies that the cost of prod^n continues to be low till the firm reaches the optimum scale. Beyond, this level, the cost of prod^n increases.

Long run avg cost curve is of great utility for making
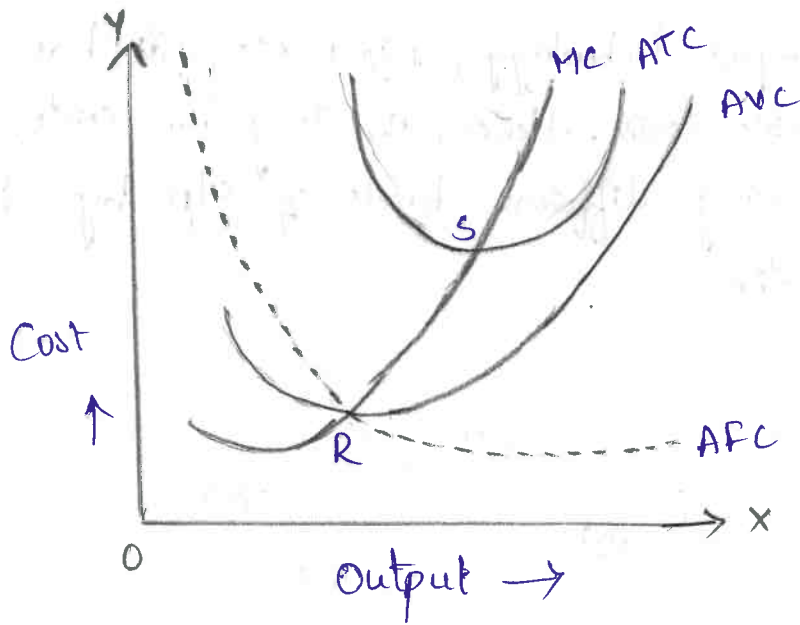
Behaviour of costs in short run.

Marginal cost and Average cost :-

MC is less than the average cost, when the avg cost is falling the avg cost is rising, the Marginal cost is more than the avg cost. When avg cost is constant, the MC also is const.
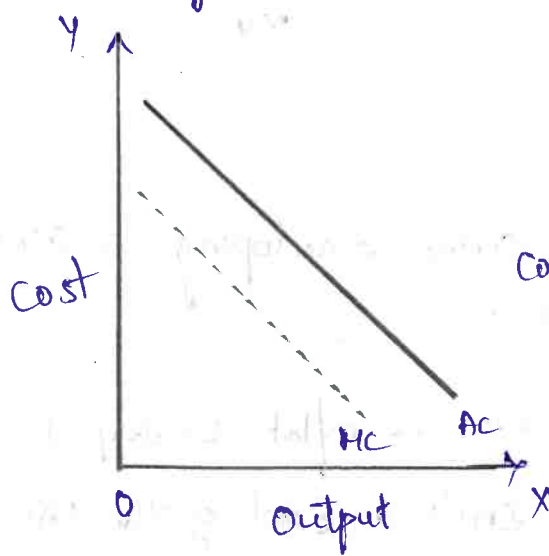
Where MC < AC
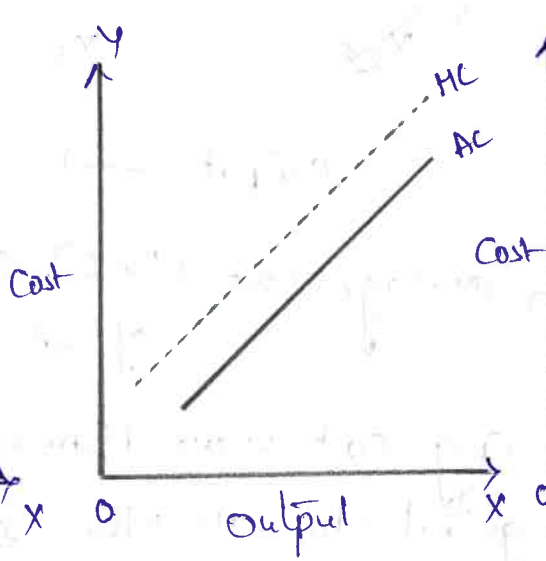
Where MC > AC
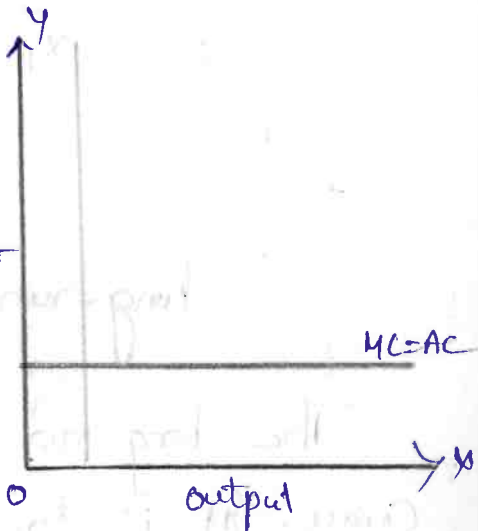
where AC is constant, MC coincides A.

Costs in long-run :-

long-run refers to that period of time over which all factors are variable. The firm has more time to make changes in the Production depending on its requirements. It can expand its Production, upgra

decisions relating to expansion of the size of the firm. ⑨
It helps to minimise costs to advantage the firm.

Optimum Size of the firm :-

Optimum means — the conditions that Produce the best result where in the firm maximises the Profits Per unit at min avg cost.

optimum firm is, "that org^n of business enterprise which, in given circumstances of tech, and the market for its pdt can Produce its goods at the lowest avg unit costs in the long run".
— R.S. Baye.

A firm is said to be in optimum size when it is in a position to utilise its resources, including technology, most efficiently. As, a result, the cost of Prodn is min and Productivity is very high.

A firm can acheive optimum size in the long-run when its LAC is the lowest.
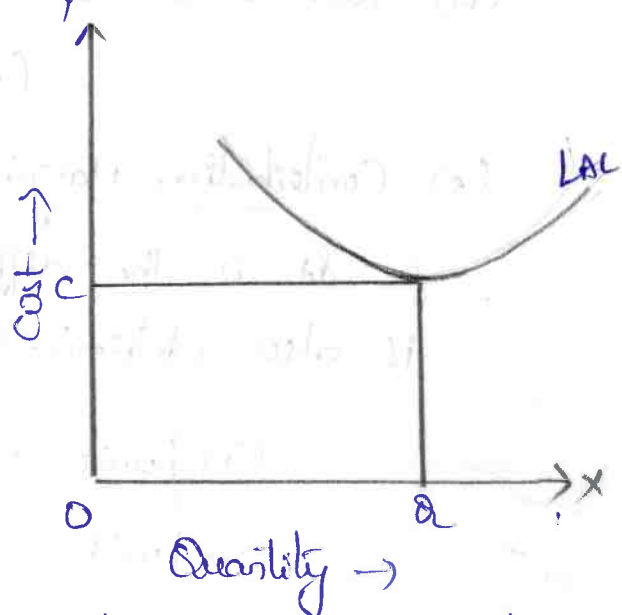
Optimum size of the firm in long-run.

Break-Even Analysis (BEA) :-

It refers to analysis of the Break-even-point (BEP).
BEP is defined as "no-profit or no-loss point."

BEA is defined as analysis of costs and their possible impact on revenues and vol of the firm. It is also called Cost-volume-Profit (CVP) analysis.

A firm is said to attain the BEP when its total revenue is equal to total cost $(T_R = T_c)$ $(T_c = f_c + VC)$

Key terms :-

(a) fixed cost : Remains fixed in short-run
Ex:- Rent, Insurance, Depreciation, Salaries and so on.

(b) Variable cost : It vary with the V of of prod'n, These includes direct materials, cost, labour, expenses and so on.

(c) Total cost : fixed cost + variable cost.

(d) Total revenue : Sales proceeds
(Sp per unit × no of units sold)

(e) Contribution Margin (CM) :
It is the diff btn the Sp/unit and VC/unit. It is also determined as, fc/unit + Profit/unit

$$CM/unit = Sp/unit - VC/unit \quad (OR)$$

$$CM/unit = fc/unit + Profit/unit$$

(f) Profit : Profit = Contribution - fixed cost.

(g) Contribution Margin Ratio (CMR) :

$$CMR = \frac{Contribution \ per \ unit}{Selling \ price \ per \ unit}$$

(h) Margin of Saftey in units (MOS) :
The Excess of actual sales (in units) minus the BEP (in Rs)

$$MOS = Actual \ sales - BEP$$

i) Margin of Saftey (in Sales volume) :

The excess of actual Sales (in Rs) Minus the BEP (in Rs).

j) Angle of incidence :

The angle formed where total cost coave cuts the total revenue coave.

(k) P/v ratio :

$$P/v \text{ ratio} = \frac{Contribution}{Sales}$$

Determination of BEP :

$$Sp = Fc + Vc + Profit$$
$$Sp - Vc = Fc + Profit$$
$$= Contribution.$$

Contribution per unit = Sp/unit - Vc/unit.

i) BEP in units :

$$BEP = \frac{fixed\ costs}{Contribution\ Margin/unit.}$$

Where CM/unit = Sp/unit - Vc/unit.

ii) BEP in Rupees (value) :

$$BEP = \frac{fixed\ costs}{Contribution\ Margin\ ratio}$$

$$CMR = \frac{Contribution\ Margin/unit}{Selling\ price\ per\ unit.}$$

Graphical representation of BEP :-

from the above graph it is clear that :

→ TC = TVC + TFC
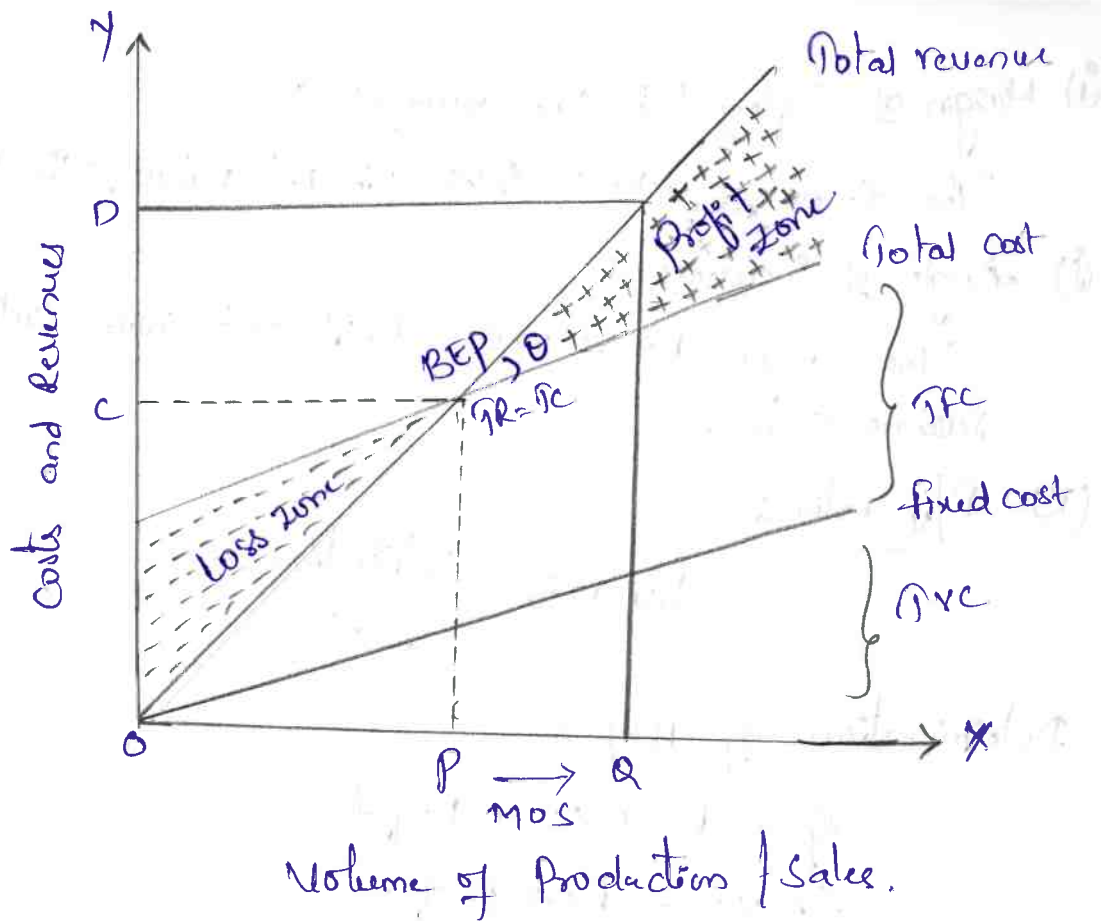
Volume of Production / Sales.

→ The VC varies proportionately with vol of Prodn & Sales.

→ The total revenue line starts from O point and increases along with vol of Sales intersecting total cost line at point BEP.

→ The zone below BEP is loss zone and above is profit zone.

→ OP is the Qty Produced / sold at OC, the cost / price at BEP

→ The angle formed at BEP, that is, the point of inter-section of total revenue and total cost is called angle of incidence. "θ".

    The larger the angle of incidence, the higher the quantum of Profits.

Assumptions : The assumptions underlying BEA are,

→ Costs can be perfectly classified into fixed and variable costs

→ Selling price does not change with vol changes.

It remains fixed.

→ All the goods are sold. There is no closing stock.

Significance of BEA :-

BEA is a valuable tool to ascertain

→ Profit on a particular level of sales volume.
→ To compare the efficiency of the diff firms.
→ To decide to "make or buy" decisions.
→ To assess the impact of changes in FC, VC or SP on BEP and Profits during a given period.

Limitations of BEA :

→ BEP is based on FC, VC and GR. Hence, a change in one variable will affect the BEP.
→ All costs cannot be classified into fixed and variable costs.
→ It is based on FC concept and hence holds good only in the short run.
→ TC and GR lines are not always straight.

Example Problems

① A firm has a fixed cost of Rs. 101000, Sp per unit is Rs 5, and variable cost per unit is Rs 3.

   (i) Determine BEP in terms of value and volume
   (ii) Calculate Margin of safety considering that the actual production is 87000 units.

Soln:- Determination of BEP :

$$BEP \text{ in units} = \frac{FC}{CM/unit.}$$

where $CM/unit = Sp/unit - VC/unit$

$$= 5 - 3$$
$$= 2 \text{ units}.$$

BEP in units $= \dfrac{10,000}{2} = 5,000 \text{ units}.$

BEP in Sales value $= \dfrac{fc}{CMR}$

where $CMR = \dfrac{SP - VC}{SP} = \dfrac{5-3}{5} = 2/5.$

BEP in Sales value $= \dfrac{10,000}{2/5}$

$$= \dfrac{10,000 \times 5}{2} = 25,000 \, /-$$

Verification: At BEP, $\mathcal{P}_R = \mathcal{P}_C$

$\mathcal{P}_R = $ Total cost

$= (\text{No of units at BEP}) \times (\text{sp}/\text{unit})$

$= 5,000 \times 5$

$= 25,000 \, /-$

In other words at BEP, $\mathcal{P}_R = \mathcal{P}_C$

$\Rightarrow$ Profit / loss $= $ zero

$\Rightarrow$ Break even point.

(ii) Determination of Margin of Safety.

Margin of Safety (units) $=$ No of units Sold $-$ BEP in units.

$= 8,000 - 5,000$

$= 3,000 \text{ units}.$

(2) A high-tech rail can carry a max of 36,000 Passengers (12) per annum at a fare of Rs. 4,00. The variable cost per Passenger is Rs 150. while the fixed costs are 25,00,000 per year. find the BEP in terms of no of Passengers and also in terms of fare Collections.

Sol:- BEP in units $= \dfrac{\text{fixed costs}}{\text{Contribution Margin per unit.}}$

CM/ Passenger $=$ fare per Passenger $-$ VC per Passenger.

$= 400 - 150$

$= 250.$

BEP in no of Passengers $= \dfrac{25,00,000}{250}$

$= 10,000$ Passengers.

BEP in Rupees:

BEP in Sales Value $= \dfrac{\text{fixed costs}}{\text{Contribution Margin ratio.}}$

Contribution Margin ratio $= \dfrac{SP - VC}{SP}$

$= \dfrac{400 - 150}{400}$

$= \dfrac{250}{400}.$

BEP in Sales value $=$

$= \dfrac{25,00,000}{250/400}$

$= \dfrac{25,00,000 \times 400}{250}$

$= Rs. 40,00,000.$

⑧ Srikanth enterprises deals in the supply of hardware parts of computer. The following cost data is available for two successive periods.

	Year I (Rs)	Year II (Rs)
Sales	50,000	1,20,000
fixed costs	10,000	20,000
Variable costs	30,000	60,000

Determine (a) BEP (b) Margin of safety.

Sol: Here, per unit data is not available. So use the P/v ratio formula to find out BEP.

$$P/v \ ratio = \frac{Contribution}{Sales} \times 100.$$

Contribution and profit during the year I and II are calculated as follows.

	Year I (Rs)	Year II (Rs)
Sales	50,000	1,20,000
less: Variable Cost	30,000	60,000
Contribution.	20,000	60,000
less: fixed cost	10,000	20,000
Net profit.	10,000	40,000

P/v ratio
$$\frac{Contribution}{Sales} \times 100$$

Year I: $\frac{20,000}{50,000} \times 100$ = 40%

Year II: $\frac{60,000}{1,20,000} \times 100$ = 50%.

$$BEP = \frac{\text{fixed cost}}{P/v \text{ ratio}}$$

$$\frac{10,000}{40\%} \qquad \frac{20,000}{50\%}$$

$$\frac{10,000 \times 100}{40} \qquad \frac{20,000 \times 100}{50}$$

$$Rs. \ 25,000 \qquad Rs \ 40,000.$$

Margin of safety

$$= \frac{\text{Net profit}}{P/v \text{ ratio}}$$

$$\frac{10,000}{40\%} \qquad \frac{40,000}{50\%}$$

$$25,000 \qquad 80,000$$

The answers can be verified by using the following formula :

$$Sales = BEP \ Sales + Margin \ of \ Safety .$$

Year $\mathbb{I}$ $50,000 = 25,000 + 25,000$

$50,000 = 50,000$

Year $\mathbb{II}$ $1,20,000 = 40,000 + 80,000$

$1,20,000 = 1,20,000$

④ Drop or Add decisions :

Ex:- A firm has to Produce two products B and c. The Particulars of price per unit, variable cost per unit and Percentage of share in the total sales volume are given in the following table.

Product mix -I

Products	Selling price	Variable cost	% of share
B	RS.40	RS -16	40%
	Rs. 50	Rs. 20	60%

The total fixed costs during the year amount Rs 1,00,000.
The total volume of Sales is Rs. 8,00,000.

The Company wants to drop Product B as it is yielding less Contribution per unit. Instead it wants to add Product D. If D is added, the new fixed cost is likely to be Rs. 1,25,000 and the sales volume is likely to increase to Rs. 9,00,000. The new scenario will be as given below.

Product Mix II :

Products	Selling price	Variable cost	% of share
C	Rs. 50	Rs. 20	70%
D	Rs. 60	Rs. 24	30%

Do you recommend the change?

Sol: . There are two Situations here.

Situation I — Products B and C
Situation II — Products C and D.

Compare the net profit earned in both the situations. Then we can decide which situation is better.

Situation 1 :

Let us find out the contribution ratio of each Product.

$$\text{Contribution ratio} = \frac{\text{Selling Price} - \text{Variable cost}}{\text{Selling Price}} \times \text{Percentage Share in the total Sales.}$$

Contribution ratio for Pdt B $= \frac{40-16}{40} \times 40\%$

$= \frac{40-16}{40} \times 0.4 = 0.24$

Contribution ratio for Product c = $\dfrac{50-120}{50} \times 0.6$

$$= 0.6 \times 0.6$$

$$= 0.36$$

Total contribution ratios for

Products B and c $= 0.24 + 0.36$

$$= 0.6$$

Total contribution = Sales × contribution ratio

$$= 8,00,000 \times 0.6$$

$$= Rs.\ 4,80,000.$$

Profit = Contribution – fixed cost

$$= 4,80,000 - 1,00,000$$

$$= 3,80,000/-$$

Situation II : (with products c and D)

Contribution ratio for Product c $= \dfrac{50-20}{50} \times 0.7$

$$= 0.6 \times 0.7$$

$$= 0.42$$

Contribution ratio for Product D $= \dfrac{60-24}{60} \times 0.3$

$$= \dfrac{36}{60} \times 0.3$$

$$= 0.6 \times 0.3$$

$$= 0.18$$

Total contribution ratios for

Products c and D $= 0.42 + 0.18 = 0.6$

Total Contribution = Sales × contribution ratio

$$= 9,00,000 \times 0.6$$

$$= Rs\ 6,40,000\ /-$$

Profit = Contribution — fixed cost

$$= \cancel{6} \ 5,40,000 - 1,25,000$$

$$= Rs.\ 4,15,000\ /-$$

The profit in the second situation is higher, and hence the change is recommended.

III. Introduction to Markets and pricing stralegies and ①
New Economic Environment

Market :-

It is defined as a place or point at which buyers and Sellers negotiate their exchange of well-defined pdts or services.

Market Size :-

It depends on many factors Such as nature of Products, demand, tastes and preferences of the customers, their income levels, State of tech, time factor in Short run and long run etc;.

Market structure :-

It refers to the characteristics of a mkt that influence the behaviour and performance of firms that Sells in that market.

→) Degree of Seller Concentration.

→ Degree of Buyer Concenkation.

→) " " pdt differentiation

→) Conditions of Entry and Exit into the market.

P·K·K

Types of Competition :-

Based on the degree of Competition, the mkts are divided into two as ⓐ Perfect market and ⓑ imperfect market.

Perfect Competition and Perfect market :-

A mkt Structure in which all firms in an industry are Price takers and in which there is freedom of Entry and exit from the industry is called Perfect Competition. The Market with Perfect Competition Conditions is known as Perfect market.

features:- The assumptions underlying Perfect markets are :

→) large no of buyers and sellers

→) Homogeneous pdts or Services.

→ Freedom to enter & exit the market.

→ Perfect info available to the buyers and Sellers

→ Perfect mobility of factors of Prod^n.

→ Each firm is a price taker.

<u>Total Revenue (TR), Average Revenue (AR) and Marginal Revenue (MR):-</u>

$$\frac{\_\_\_}{X} , \frac{\_\_\_}{X} - \frac{\_\_\_}{X}$$

→ Total revenue is the revenue earned by producing and selling 'n' no of units.

∴ TR = Price per unit (P) × no. of units produced and sold (Q)

$$\boxed{TR = P \times Q}$$

→ Avg revenue is the revenue earned per unit sold.

$$Avg \ revenue \ (AR) = \frac{Total \ Revenue \ (TR)}{No \ of \ units \ Produced \ and \ Sold \ (Q)}$$

$$\therefore AR = \frac{TR}{Q} \quad (\because TR = P \times Q)$$

$$= \frac{P \times Q}{Q}$$

$$\boxed{\therefore AR = P}$$

→ Marginal revenue (MR) refers to the change in revenue by producing and selling one more unit.

Thus, under - Perfect Competition,

$$\boxed{P = AR = MR}$$

<u>Imperfect Competition :-</u>

A competition is said to be imperfect when it is not Perfect. when the conditions of a perfect market do not exist in a given market, it is called imperfect market.

Based on the no of sellers and buyers the imperfect markets are classified as;

"Poly" = Seller , "Psony" = Buyer

Monopoly :- only one seller.

An extreme version of imperfect mkt is monopoly. A single seller completely controls the entire industry. It is the only firm producing the given pdt in its industry.

monopolistic competition :-

when a large no of sellers produce differentiated pdts, monopolistic competition is said to exist. A pdt is said to be differentiated when its imp features vary. and these differences may be real or perceived.

Ex:- Yashica, Nikon, Kodak cameras differ in features like flash, zoom lense, focal length, memory, size etc;.

→ Duopoly :- Two sellers., duopoly is said to exist.

→ Oligopoly :-
If there is competition among a few sellers, oligopoly is said to exist. Oligopolistic mkt situations are very common in the sectors relating to manufacturing, transportation, commⁿ and so on.

Ex:- News papers — The Hindu, Indian Express, Times of India, etc.

→ Monopsony :-
If there is only one buyer, monopsony mkt is said to exist.

Ex:- FCI, the only govt organ that purchases agricultural pdts.

→ Duopsony :- Two Buyers

→ Oligopsony :- few buyers, oligopsony is said to exist.

Equilibrium point :-
It refers to a position where the firm enjoys max profits and

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It has no incentive either to reduce & increase its output level.

In Perfect competition, the firm has to satisfy two conditions to attain Equilibrium

(a) MR = MC

(b) MC curve should cut the MR curve from below.

Price - output determination in Case of Perfect competition:-

Short - run:-

The price and o/p of the firm are determined, under perfect competition, based on the industry price and its own costs.

The firm's demand curve is horizontal at the price determined in the industry (AR = MR = P). This demand curve is also known as avg revenue curve.
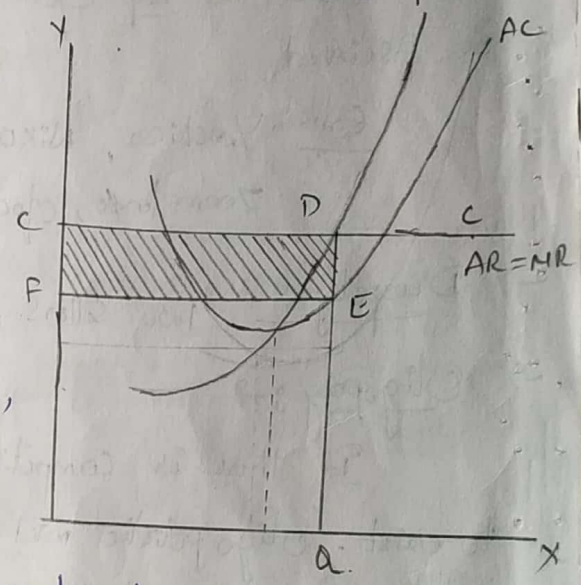
when the avg revenue curve is const, it will coincide with the marginal revenue curve. Thus, CC is the demand curve representing the price, avg revenue curve and also the marginal revenue curve (P = AR = MR). Avg cost (AC) and marginal cost (MC) are the firm's avg and marginal cost curves.

Here, the firm satisfies both conditions (a) MR = MC

(b) MC curve cuts the MR curve from below.

At point D, the firm attains Equilibrium point.

The firm gets higher profits as long as the price it receives for each unit exceeds the avg cost (AC) of Prodn

OC = QD, price

OF = QE, avg cost

OQ = FE, Equilibrium point

Avg Profit = P - AC

Here, DE is the avg profit and CDEF is the total profit which constitutes the "Supan8mal" & "abn8mal" Profit.

Long-run :-

The two conditions are satisfied

(a) MR = MC

(b) AR = AC and AC must be tangential to AR at its lowest point.
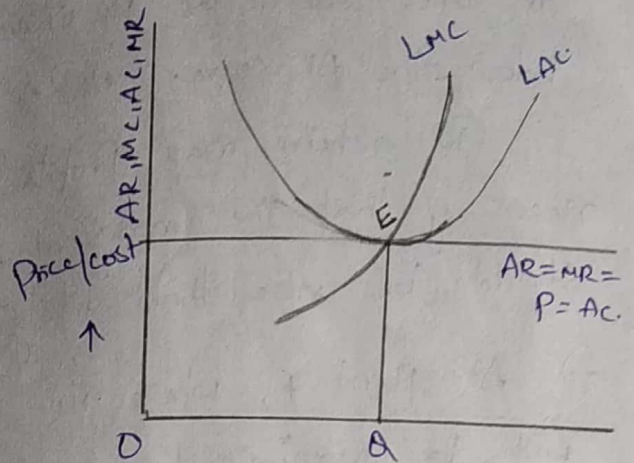
QE is the price and also the longrun Avg cost (LAC) long run marginal cost (LMC) curve passes through the min point of the long-run avg cost EEA curve (LAC) at E.

E is the Equilibrium point.

Monopoly :-

It refers to a situation where a single firm is in a position to control either supply & price of a particular pdt or service.

Features :-

→ Single firm controls a particular pdt & service.

→ No close substitutes & competitors

→ Monopolist can decide either price & quantity, not both.

→ pdts and services provided by the monopolist bear inelastic demand.

Price - output determination in Monopoly :-

Under monopoly, the avg revenue curve for a firm is a downward sloping. It is because, if the monopolist reduces the price of his pdt, the quantity demanded increases and

Vice-Versa.

→ In monopoly, MR is less than AR. In other words, the MR curve lies below the AR curve. (MR < AR)

To acheive max Profits, it is necessary that the marginal revenue should be more than marginal cost.

→ At point f, where MR = MC, Profits will be maximised.
→ OQ = Equilibrium.
→ OA = Equilibrium price
→ QC = Avg cost.
→ BC = Avg Profit (AR - AC = Avg Profit).
→ ABCD = Profits earned by the monopolist in the Equilibrium position in the short run.
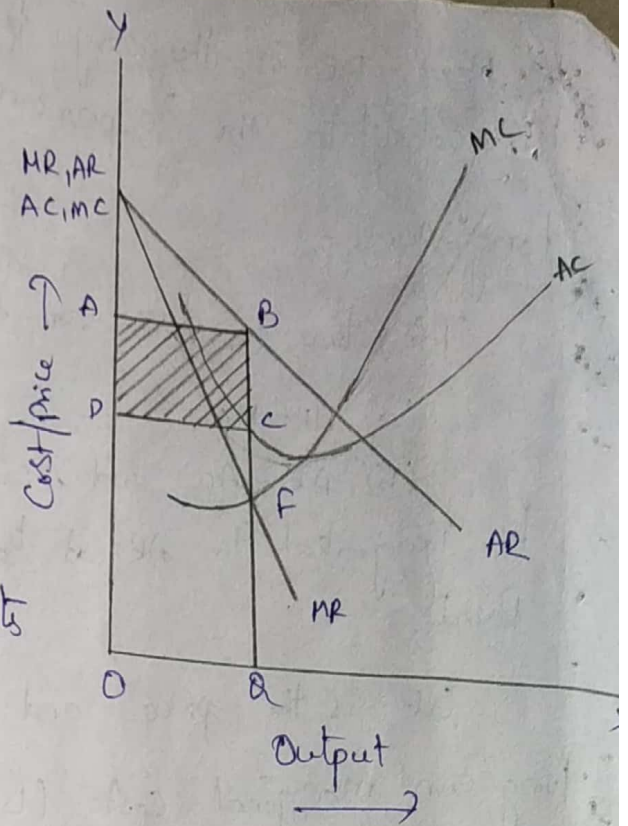
Price Discrimination :-

When a firm sells its products to its customers of diff profile at diff prices, with no corresponding change in cost then it is called price discimenation. It is also called differential pricing.

Basis of price diccimination :-

→ Purchasing Power
→ Quantity bought
→ Customers from diff mkt conditions.

In general, most of the entrepreneurs find *small is beautiful* and feel expanding the size of the firm upto a particular point may be feasible and beyond that it is not. There are also entrepreneurs consider they cannot really do big business if the size of the business is kept limited. They are very passionate about spreading their business activities across the boundaries and get the work done through competent workforce at different levels of management. Here, it is not easy to say which approach is right. The deciding factor in all the cases is the competence of the entrepreneur and his ability to translate the vision into action.

PRICING STRATEGIES

Conventionally, economists discuss price determination under different competitive situations such as perfect competition and monopoly. But in the real world, firms do not determine price based on marginal cost and marginal revenue. Equilibrium price and output determination is too abstract to be put into practice. However, these models are based on sound economic logic and the economic logic may be made use of by firms, along with sound common sense, for fixing of prices. This chapter deals with different pricing methods which are practised by firms in real life situations. Pricing is not an exact science. Pricing decisions, more often, are made by trial and error. Most often we see discounts and concessions offered at the time of purchase. Sometimes, certain schemes are introduced where buying of a packet of tea leaves gets you a shining steel table spoon free! Why are these small concessions provided? While the main objective of such schemes is to increase sales, one of the other objectives is also to correct the pricing strategy, if it has gone wrong earlier.

SIGNIFICANCE OF PRICING

In the case of certain firms of oligopoly nature, pricing is the very philosophy of business and it depicts the very objectives of the business. Pricing is more often viewed as a strategy to bag a larger market share. The success of business objectives depends, to a great extent, on the pricing policies and methods practised by firms. Any indifferent or haphazard approach to pricing may lead to disastrous consequences. To understand the significance of pricing, it is essential to know the pricing objectives and pricing policies of a business firm. Pricing is an important exercise. Underpricing will result in losses and overpricing will drive away customers. To determine pricing in a scientific manner, it is necessary to understand the objectives, policies and methods of pricing. Pricing new products and services is a relatively difficult task. This is because there is no prior information or guidelines to fix the price. In the case of existing products, fixing price may be easy because there is a lot of information about the prices prevailing in the market and the experiences of traders. The significance of pricing can be explained in terms of the following pricing objectives and policies.

PRICING OBJECTIVES

Pricing objectives refer to the general and specific objectives which a firm sets for itself in establishing the price of its products and/or services and these are not much different from the marketing objectives of a firm or its overall business objectives. Generally, the objectives of pricing are:

(a) To maximise profits
(b) To increase sales
(c) To increase the market share

(d) To satisfy customers
(e) To meet the competition
(f) To generate internal resources to finance expansion and growth
(g) To maximise the value of the firm for different stakeholders.[1]

Pricing Policy

Pricing policies are intended to bring consistency in the pricing pattern. They define how to handle complex issues such as price discrimination and price stability.

Pricing policies play a significant role, not only in the case of single-product firms but also multi-product firms. A multi-product firm faces more challenges such as maintaining price differentials between related products, especially substitutes such as deluxe models and basic models.

PRICING METHODS

The following are the different methods of pricing.

I. Cost-based Pricing Methods

(a) Cost-plus pricing: This is also called 'full-cost or mark-up' pricing. Here the average cost at normal capacity of output is ascertained and a conventional margin of profit is added to the cost to arrive at the price. In other words, find out a product's unit total cost and add a percentage of profit to arrive at the selling price. This method is suitable where costs keep fluctuating. It is commonly followed in departmental stores and other retail shops. This method is simple to be administered but it does not consider the competition factor. A competitor may produce the same product at a lower cost and, thus, offer it at a lower price!

Sometimes, it may be very difficult to find the selling price in advance due to the complexity of the nature of the project. In such a case, the parties to the contract agree on a percentage of profit on the total cost incurred to execute the project. For instance, in the case of large capital projects or high-technology contracts, time, duration of construction or changing technical specifications leads to a high degree of uncertainty about the final price. In such a case, the only alternative is to adopt cost-plus pricing.

(b) Marginal cost pricing: In marginal cost pricing, selling price is fixed in such a way that it covers fully the variable or marginal cost and contributes towards the recovery of fixed costs fully or partly, depending upon the market situation. In times of stiff competition, marginal cost offers a guideline as to how far the selling price can be lowered.

(c) Social cost-based pricing: *Charging Based on Social Cost* is a system of charging extra for the users of a transport network during peak hours to reduce traffic congestion. The highway users are charged relatively higher toll charges during the peak hours, higher charges for utilities during peak hours, public transport in canals and airports. The purpose of this charging to regulate the demand during peak hours so that the congestion is managed without increasing supply. This method gains importance because traffic has to be managed in the light of the supply constraint. When the users are made aware of the higher toll charges payable during the peak hours and the consequences of such excessive use on the

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[1] Stakeholders include shareholders, employees, customers, creditors, investors, government and general public.

environment, the use comes down relatively. This method is also called congestion pricing. Since this method involves payment of differential tariff, it is criticised by many that it is not equitable and is budensome for the users. Even the shopkeepers complain that their business activity is affected adversely.

II. Competition-oriented Pricing

Here pricing is a very complex task. Here the price of a product is decided on the basis of what the competitor charges for a similar product. In other words, a reduction in the price of products by the competitor will force a particular seller to follow suit. But how much can this seller reduce the price? Here the marginal cost concept comes handy. As long as the price covers the marginal cost, he will continue to sell. If not, he will stop selling. It is because; every unit sold at less than the marginal cost results in a loss apart from fixed expenses losses.

(a) Sealed bid pricing: This method is more popular in tenders and contracts. Each contracting firm quotes its price in a sealed cover called 'tender'. All the tenders are opened on a scheduled date and the person, who quotes the lowest price, other things remaining the same, is awarded the contract. The objective of the bidding firm is to bag the contract and, hence, quote lower than others. The comment of marginal cost is the guiding principle here also. Any price quoted less than the marginal price results in a loss apart from fixed expenses. Ambitious quoting, no doubt, results in profit but suffers from the danger of losing the contract.

(b) Going-rate pricing: Here the price charged by the firm is in tune with the price charged in the industry as a whole. In other words, the prevailing market price at a given point of time is the guiding factor. When one wants to buy or sell gold, the prevailing market rate at a given point of time is taken as the basis to determine the price. Normally, the market leaders keep announcing the prevailing prices at a given point of time based on demand and supply positions.

(c) Limit Pricing: A limit price is the price set by a monopolist with a view to discourage others from entering into a market. The limit price is often lower than the average cost of production or just low enough to make entering not profitable. With limit price in operation, those entering the market with a view to compete with the monopolist will find it totally unattractive to survive. The firms use different strategies to keep competition off. Some of such strategies include signing a union contract to employ a certain (high) level of labor for a long period of time, or building excess production capacity so as to drive out competition effortlessly. It is illegal in many countries.

PRICING STRATEGIES IN TIMES OF STIFF PRICE COMPETITION

We find firms selling similar products in a neck and neck contest. If the price wars lead to prices close to marginal cost, the firms do not really get any profit. In such a situation, there are five strategies that are valuable for firms:

1. **Price matching:** Price matching is a strategy in which a firm promises to match a lower price offered by any competitor while announcing its own price. It is necessary that the firm is confident, that the price cannot be less than the one is has offered before adopting this strategy. If all the firms maintain the same price, they share the market and charge monopoly price which results in high profits. The firm that comes out with a similar product at a lower price, will reclaim back its market share.

2. **Promoting brand loyalty:** This is an advertising strategy where customers are frequently reminded of the brand value of a given product or service. The conviction here is that customers, once loyal to a given product or service, will not slip away when competitors come out with products at lower prices. Pepsi and Coke spend huge amounts on advertising campaigns to draw the attention of consumers. Brand-loyal customers continue to be with the firm despite its higher prices.

3. **Time-to-time pricing:** In this method, the firm varies its price from time to time, could be hour to hour or day to day. This method offers two advantages: the rival firms cannot play with price cuts. Customers will have no experience of which firm charges the lowest price. There is no guarantee that one firm continues to offer the best price. The person who has the price information often stands to gain. But this gain is short-lived or is a one-time benefit. This is because such information needs to be updated from time to time. A customer cannot hunt for price information every time. So all the firms in the market have their own undisturbed market share. Added to this, they can also sustain their market share by providing better customer care and service.

Situation Analysis

Pricing methods

Which pricing strategy do you suggest to maximise sales in the following cases? Support your answer.

- Colgate
- Private airlines company
- State university
- Private college
- Software training company
- Bathing soap manufacturing company
- Pepsi or Coca-Cola
- Travel agencies and Star Hotels
- Scooter and accessories

This method is frequently applied in bullion, currency and bank deposit markets. Gold prices vary internationally for various extraneous considerations. Banks keep changing their deposit interest rates. Similarly, the exchange rate of the US dollar varies from time to time. Different exchange houses vary their buying and selling rates of different currencies.

4. **Promotional pricing:** A firm may offer a product at the most competitive price to promote it. Sometimes, the price of a particular product is kept intentionally low to attract the attention of a customer to the other products of the firm. The objective is to increase the sales of the entire product-line rather than make a profit on a particular product.

5. **Target pricing:** Here, the company operates with a particular targeted profit in mind. Normally the cost of capital will be one of the yardsticks to guide the targeted rate of return. How much is the rate of return the other companies achieve could also be a yardstick to determine the price. The higher the risk and investment, the higher is the targeted profits and price.

III. Demand-oriented Pricing

The higher the demand, the higher may be the price. Cost is not the consideration here. The key to pricing here is the value as perceived by a consumer. This is a relatively modern marketing concept. Most organisations now consider favourably such proposals where there is a possibility to charge higher prices on their products and services, even though they call for higher investments and latest technology. Demand-oriented pricing can take two forms: (a) Differential pricing, also called price discrimination (b) Perceived value pricing.

(i) Price discrimination: Price discrimination refers to the practice of charging different prices to customers for the same good. A firm uses its discretion to charge different customers differently. It is also called differential pricing. Customers of different profiles can be separated in various ways, such as on the basis of consumer requirements (for example bulk and low gas supply to industrial and household consumers), the nature of the product itself (for example original and replacement components of pressure cookers), geographical areas (domestic and international markets), income group (patients, in a government hospital, are charged a fee based on their income groups) and so on.

The objects of price discrimination are to:

(a) Develop a new market including, for exports
(b) Utilise the maximum capacity
(c) Share consumer surplus along with the consumer and not leave it totally to him
(d) Meet competition
(e) Increase the market share.

(ii) Perceived value pricing: Perceived value pricing refers to fixing the price on the basis of a buyer's perception of the value of the product. This involves more understanding the needs and psychology of the customer.

(iii) Priority pricing: Priority pricing is more visible in securities trading. In securities trading, the first bid or offer price is executed before the next bid or offer price. The sequence of receipt of bids is the basis for execution of the transactions. Volume of the order is not important here. As per the market rules in stock trading, the first trade received to be executed first. Of course, if two bids are received at the same time, one for the large volume is given preference over the other and executed first. The rationale behind priority pricing is that the user pays for what he gets. The charges payable under priority pricing are fixed more on what the customer is ready to pay for the services rendered.

III. Strategy-based Pricing

(a) Market skimming: When a product is introduced for the first time in the market, the company fixes a very high price for it. The main idea is to charge the customer the maximum possible. This strategy is mostly found in the case of technology products. When Sony introduces a particular TV model, it fixes a very high price. A new series of Pentium is priced very high when it is released into the market. Initially everyone cannot afford to buy it. But with time, the price comes down and more people can afford to the product.

This method can be followed only when (i) the demand for the product is inelastic (ii) there is no threat from competition (iii) high price is coupled with high technology or quality.

(b) Market penetration: This is exactly opposite of the market skimming method. The price of the product is fixed so low that a company can increase its market share. The company attains profits with increasing volumes and increase in the market share. More often, companies believe that it is necessary to dominate the market in the long run than making profits in the short run. This method is more suitable where the market is highly price-sensitive. In such a case, a low price stimulates rapid growth. It will be more appropriate in cases where the costs are likely to fall with an increase in output. A low price may not attract a significant degree of competition either.

Through penetration pricing policy, the firms succeed in launching its new products and services and thus penetrating the mass markets through lower price offers, particularly while introducing new products. This method of pricing is also called stay-out pricing because it discourages the new concerns from entering the market. Penetration pricing yields good results when (a) the product or service has elastic demand (b) produced in mass (c) there is threat of competition.

(c) Two-part pricing: Firms with market power can enhance their profits by the two-part pricing strategy. Under this strategy, a firm charges a fixed fee for the right to purchase its goods, plus a per unit charge for each unit purchased. Entertainment houses such as Country Club, athletic clubs, golf courses and health clubs usually adopt this strategy. They charge a fixed initiation fee plus a monthly or a per visit charge, to use the facilities. There are also organisations which charge a membership fee (equivalent to the consumer surplus) and offer their products and services on a cost-to-cost basis. The fixed fee generally equals the consumer surplus each consumer receives at this per unit price. The charge per visit or on a monthly basis equals the marginal cost. Under this method, if the membership fee is fixed equal to one's consumer surplus, actual profits can even be higher than in the case of monopoly.

(d) Block pricing: Block pricing is another way a firm with market power can enhance its profits. We see block pricing in our day-to-day life. Six Lux soaps in a single pack or five Maggie noodles packets in a single pack illustrate this pricing method. By selling a certain number of units of a product as one package, a firm earns more than by selling unit wise. Block pricing is a profit maximisation price on each package. It is generally the total value a consumer receives for the package, including consumer surplus. It works out as follows: Suppose six International Lux soaps are offered as a single unit along with a nice-looking soap box at Rs 100. Here, a consumer has to make an all-or-none decision between buying six units or buying nothing. From the customer point of view, each soap bar costs, say, Rs 18, and the soap box is priced at Rs 25. So the soaps and box together cost the customer $(6 \times 18) + 25 = 108 + 25 = $ Rs 133. As against this, the pack of six International Lux soaps is offered at Rs 100 which is fairly attractive from the customer's angle! The consumer surplus here is equal to Rs 33. Block pricing enhances profits by forcing consumers to make an all-or-none decision to purchase a product. This can enhance profits even in situations where consumers have identical demands for a given product.

(e) Commodity bundling: Commodity bundling refers to the practice of bundling two or more different products together and selling them at a single 'bundle price'. The package deals offered by tourist companies and airlines hold testimony to this practice. The package includes the airfare, hotel, meals, sight-seeing and so on at a bundled price instead of pricing each of these services separately. Computer firms offer PCs, assembling as per the customer specifications and of PCs and offer them at a bundled price. The car companies provide cars with air-conditioning, power steering, automatic transmission, autogear so on, and sell them at a special price. Commodity bundling is a viable pricing strategy to enhance profits when consumers differ with respect to the amounts they are willing to pay for multiple

products sold by a firm. It is advantageous for a trader to know how much a consumer is prepared to pay for each of the product offered in a bundle. In case a tourist is prepared to pay any price for viewing Niagara Falls for longer hours, the tourist company can charge better more to this customer by letting him have a good time!

(f) Peak load pricing: During the season when demand is likely to be higher, a firm may enhance profits by peak-load pricing. The firm's philosophy is to charge a higher price during peak times than is charged during the off season. The pricing is done in such a way that competition does not eat into the business. Such a firm covers the likely losses during the off season from the likely profits made at the peak season. Where the demand during the peak times is so high that all the customers cannot be accommodated at the same price due to capacity constraints, a profitable alternative for a firm is to follow peak-load pricing. Airliners such as Air-India, Indian Airlines and Jet Air keep revising their fares every three months to charge higher during festival/holiday seasons. Toll roads/bridges tend to have more traffic during the rush hour than at other times of the day; utility companies tend to have a higher demand during the day than during late-night hours. Peak-load pricing is similar to price discrimination. But due to capacity limitations, a firm is unable to fully equate the marginal revenues of those who purchase at different times.

This is a form of price discrimination in which the time of consumption is the basis discrimination. Where the elasticity for products and services changes with time, this strategy is very appropriate. In other words, take the case of telecommunication, electricity or public transport. If the power or electricity is consumed during the peak times such as day time that too during office hours, the charge could be on higher side. Similarly if the calls are made during wee hours i.e., 2.00 AM to 4.00 PM, the tariff could be very low. This strategy is more visible services or business activities where fluctuations in demand associated with time is significant.

(g) Cross subsidisation: In cases where demand for two products produced by a firm is interrelated through demand or cost, the firm may enhance the profitability of its operations through cross subsidisation. Using the profits generated by established products, a firm may expand its activities by financing new product development and diversification into new product markets. For example, a computer company selling both hardware and software may find economies relating to volume and cost, in selling the two products jointly. Cost savings can accrue as the software is developed as per the requirements of a customer. The demand for the two products is likely to be interdependent. In such circumstances, the company may find it profitable to sell hardware at or below cost and charge a higher price for software. The customer is also happy that the software is customised to his requirements and compatible with the hardware. The strategy of cross subsidies facilitates a company to sell multiple products. This may result in cost savings. If the two products are such that they are interdependent in terms of demand, a customer can be given an incentive to buy more of each product than he would otherwise buy.

(h) Transfer pricing: Transfer pricing is an internal pricing technique. It refers to a price at which inputs of one department are transferred to another in order to maximise the overall profits of the company. In case of a company having multiple processes, the output of one process is the input of the next. Till production reaches the last stage, the output of each process is termed as work-in-progress. The output price of one process affects the output price of next. The engine department of Kinetic Honda makes scooter engines and forwards these to the assembly department. The assembly department in turn assembles the scooter. Here the price at which the engine department forwards each engine affects the price of the scooter. Transfer pricing refers to the method of pricing the work-in-progress at different

levels of processing at which one department forwards its output to the next department for further processing.

(i) Loss Leader Pricing: Loss leader pricing is an aggressive pricing strategy. Here, the seller offers goods and services below the cost to attract the customers. While offering the products below the cost, the store will make for the losses on the highlighted products when the customer makes additional purchases of profitable goods. This strategy is extensively seen in on line retail's website or even physical store outlets.

It is widely observed that the customer does not go from the store with only such products offered below the cost, when he comes to the store, he gets attracted to buy some other products (these are not priced below the cost, in fact they bear higher prices than cost) on which the store makes profits. This is a strategy to make the customers first visit the store. Offering several free copies of magazine at the time of its launching or inviting all the known contacts for a free lunch or dinner for a day or two at the time of inauguration of hotel or mess or any other introduction offer are a few examples for loss leader pricing strategy.

(j) Predatory Pricing: Here the products and services are offered at such a low price to drive competition out of the market or creating absolute barriers for every one else to enter. No one can afford to survive in the market if they cannot sustain equal or lower prices without losing money. Chinese products of different quality and prices seen every corner in the word today reflect as an example for this strategy.

(k) Psychological Pricing: Offering products or services at a price such as Rs. 49 or Rs. 499 is popularly called as psychological pricing. Companies such as Bata extensively follow this method. Customers are likely to consider that this product is not costing Rs. 50 or Rs. 500 and hence they buy at these prices. The companies which adopt this strategy consider that there could be resistance from the customers if prices are either rounded off or higher than this level.

(l) Flat Rate Pricing: Where the price is charged at a flat rate or single fixed rate for a particular product or service irrespective of the usage, flat rate pricing is said to exist. Take the case of internet service providers. You pay a flat rate to access internet at all hours and days of the year. For internet broad band connections, charging flat rate is common practice across the world.

(m) Time/Usage Sensitive Pricing: Service Providers such as Internet, Electricity companies or mobile communication companies offer their customers time sensitive, or time of use, pricing plans. These plans reflect the actual cost of providing service at the time it is needed. They are designed to encourage customers to lower their consumption during times when the cost of providing the service is high. For instance, during the peak hours such as 11.00 AM, when all offices and factories work, the electricity charge for consumption of every unit is priced relatively higher than the non-peak period such as morning 6 'O'Clock. This type of strategy will enable the consumers to use these services all through the day adjusting to these changing price tariff. For instance, when demand is low, utilities can supply electricity drawing from less expensive sources. When demand for electricity is high, draw from more expensive sources to supply enough electricity. This is also called peak load pricing.

(n) Precedence Model: The Precedence model is more seen in the context of internet users. During peak hours, when congestion is likely to occur, precedence model offers a solution in terms of offering the

services in a sequence. It does not support any new real time multi-media applications. It provides a framework wherein the existing users who compete for resource sharing are given better service in a conflict-free environment. First, a criteria set to determine the priority of different applications (precedence numbers are assigned accordingly) and this be reflected in the internet protocol (IP) precedence field of the different data packets. The packets would receive network priority based on their precedence numbers. During times of congestion, this model provides a logical basis for deciding which packets to send first and which to hold up or drop.

(o) Transaction-Based Pricing (TBP): This is technology-based pricing (TBP) model that allows to acquire enterprise-wide case management solution including all the services require in terms of support, maintenance, version upgrades and training at one go. Normally all these means a large capital expenditure. But when these are associated with the main transaction, the charges for all these services could be factored into the price of the main transaction. Today organisations have several constraints in terms of budget availability and skillset. Transaction based pricing is viewed as the best alternative in such a case. Annual maintenance contract for a refrigerator or an air conditioner will be cheaper if taken up at the time of purchase of the asset. Transaction costs are kept lower to attract the customers. This allows for immediate profits for the customers also. Unlimited support and new version upgrades offer more attraction for the customers to prefer transaction-based pricing and this is equally profitable for the sellers/service providers also.

New Internet Pricing Models

New Internet pricing models brought price transparency in the markets and this has been great boon for the consumers and it has been bad really for the businessmen. Price transparency means the ability of the consumers, both wholesalers and retailers, to know the prices prevailing for a given good or service at a variety of outlets. So far, consumers were not aware of the prices prevalent in other markets because of geographical limitations and non-availability of technology to make these prices accessible. Today, with the click of a mouse, the consumer is in a position to price-shop across the world with full information on prices and other terms and conditions. In other words, technology has empowered us so great in terms of formulating a new way to respond to changes in the digital market place. In e-markets (driven by internet pricing models), a local company can hawk its wares worldwide at an affordable price while forcing firms to ramp up their response to shifts in consumer demand. Dynamic pricing and variable pricing are two methods that are widely seen in e-markets.

Dynamic Pricing: Dynamic pricing extensively visible in stock exchanges and commodities markets. Dynamic pricing is a mechanism used for matching supply and demand through the price structure. On stock exchange, foreign currency or even in commodity markets, where supply and demand can fluctuate on a second-by-second basis, dynamic pricing model comes handy. Dynamic pricing method can successfully capture these changes and provide the consumers with the range of prices for a given period for decision making. Airlines companies also follows dynamic pricing model wherein Air ticket prices are reduced on empty seats proportionately as the day, or even the hour, of the flight draws closer.

Variable Pricing: Variable pricing method is extensively visible in consumer segment. It aims to generate incremental sales and revenues by varying the price of an item. Particularly where the customer is not willing to pay the current price for the product, the seller offers a steep price discount and motivates the buyer to go for a trial use. Once the consumer finds that the product is a better-fit, he will be willing to

pay for the product at the discounted price. Variable pricing is widely seen in perishable environment and also where the products are minutely defective. For instance, the seconds market (Raymonds or Bata, even slightly dented cars) offers the products at moderate to steep discounts to sell the stocks.

Of late, the supermarkets such as More or Fresh retail outlets do their research to determine where the variable pricing works. For instance, using their vast database of consumer history, they resort to offering the products through selective deep price discounts. Wednesday is chosen as the most preferred day to offer the lowest prices on select products to bring housewives to supermarkets. Otherwise, the consumers prefer to do shopping during weekends and on working day such as Wednesday, the middle day of the week, the supermarkets face shortage of consumers. Another example could be 'Offering fabric softner at a discounted price to a consumer buying laundry detergent'.

Smart Pricing (Through Smart Market Mechanism Model): Smart pricing is one of the latest methods of pricing which adds more value for the users. As part of smart pricing, automatic price adjustments are introduced for certain clicks obtained from the Google Network. Google's smart pricing model offers better placement for better performing ads, and reduced the cost of a click to the least amount possible to stay above the competitor's ad. And now, with no change in the bid, *Google may reduce the cost for a click that better reflects the value it brings to advertisers.*

Google AdWords Team, for instance, introduced two improvements to AdWords that will help improve your ROI and help you reach additional targeted prospects. First, the price of certain clicks is adjusted based on expected value to help ensure better performance for advertisers. Second, the reach of contextually-targeted advertising is extended to ads in approved email programs, including Gmail and HTML newsletters.

The Google Network constantly analyses the data across its network, and if its data shows that a click is less likely to turn into business results (e.g. online sale, registration, phone call, newsletter sign-up), i may reduce the price payable for that click. *One can may notice a reduction in the cost of clicks from content sites.*

Many factors are considered in this process: such as what keywords or concepts triggered the ad, as well as the type of site where the ad was served. For example, a click on an ad for medical tourism on a web page about do's and don'ts in medical tourism may be worth less than a click on the same ad appearing next to a review of hospitals offering services of medical tourism. In this process, one can save time and hassle by estimating the value of clicks and adjusting prices on an ongoing basis. With improved smart pricing, one automatically gets greater value for clicks from ad impressions across the network, all with no change in how bids are made.

Precedence Model: The Precedence model is more seen in the context of internet users. During peak hours, when congestion is likely to occur, precedence model offers a solution in terms of offering the services in a sequence. It does not support any new real time multi-media applications. It provides a framework wherein the existing users who compete for resource sharing are given better service in a conflict-free environment. First, a criteria set to determine the priority of different applications (precedence numbers are assigned accordingly) and this be reflected in the internet protocol (IP) precedence field of the different data packets. The packets would receive network priority based on their precedence numbers. During times of congestion, this model provides a logical basis for deciding which packets to send first and which to hold up or drop.

Forms of Business organisations :-

The diff forms of Business orgons are :

→ Sole trader & Proprietorship

→ Partnership

→ Joint stock company (Jsc)

→ Cooperative Society.

Sole trader :-

It is one of the Simplest, oldest and natural form of business orgons. It is also called Proprietorship.

Sole → Single
trader → owner } Single owner.

It is one-man form of orgon.

features : → Easy to start and Easy to close.

→ Own Capital

→ Enjoys all profits and Suffers loses alone.

→ High degree of flexibility

→ Direct Contact with cuslomers.

→ Can take decisions very fastly and implement them Promptly.

Advantages :-

→ DM

→ Low rate of Taxation

→ Secrecy

→ Total control

→ Transferability.

Disadvantages :-

-) unlimited labour
-) No division of labour
-) uncertainity
-) Inadequate for growth and expansion
-) Low bargaining power.

Partnership :-

It is an improved firm of sole trader.

Acc to Indian Partnership Act, 1932 defines partnership as " the relationship btn two or more persons who agrees to share the Profits of the business carried on by all or any one of them acting for all.

features :-

-) Relationship
-) Agreement
-) unlimited liability
-) No of Partners { 10 in Banking business
                     20 in non- banking business.
-) Division of labour
-) Direct | Personal contact with customers
-) Flexibility
-) Joint and several liability.
-) Implied authority
-) Transferability of shares
-) Taxation
-) Dissolution. (closure of Partnership)

②

Partnership Deed :-

The written agreement among the Partners is called Partnership Deed. It includes the terms and conditions governing the working of Partnership.

Kinds of Partners :-

→ Active Partner
→ Sleeping Partner
→ Nominal Partner
→ Partner by Holding out
→ Partner by Estoppel (behaviour or Conduct)
→ Minor partner.

Advantages :-

→ Easy to form
→ Availability of larger amount of capital.
→ Division of labour
→ flexibility
→ Quick decisions and prompt actions.
→ Positive impact of unlimited liability
→ Tax rate.

Disadvantages :-

→ Difficult in formation
→ lack of harmony
→ limited growth
→ Instability
→ High tax rate.

Joint stock Company (JSC) :-

It is the emerged form of the limitations of Partnership such

Joint and several liability, unlimited liability, limited resources and uncertain duration etc.;

The word company has derived from latin origin. Com means "come together" and pany means "bread". So that Jsc means People Come together to earn their livelihood by investing in the stock of the Co jointly

Company Def:-

Section 3(1) of the Companies Act, 1956 defines a co as a co formed and registered under the Act or an existing co.

A Jsc is described as a voluntary association of persons recognised by law, having a distinct name, a common seal, and formed to carry business for profit, limited liability corporate body and perpetual succession.

Features :-

→ Artificial Person
→ Seperate legal Existence
→ Limited liability
→ capital divided into shares.
→ Transferability of shares
→ Common Seal
→ winding up
→ Perpetual Succession
→ The name of the Co ends with limited.

Kinds of Companies :-

→ Based on incorporation
→ Based on Public interest
→ Based on liability
→ Based on Nationality.

i) Based on incorporation :- chartered, statutory and Registered. ③
   → Chartered cd's are created by a Royal charter of the
   → statutory Co's   "   "   "   the statute of a state
   state legislative & the parliament.

     Ex:- Pora APSRTC, RBI, FCI, IDBI etc.
     Powers, scope, objectives, responsibilities are defined
by this act.

   → Registered co's is one that is registered under Indian
   Companies Act, 1956 (earlier it was ICA, 1913)
     Charter (co's) contain the rights, Previlages and
Powers to be used by the chartered co
     Ex:- British East India Co. formed in England in 1600
to Trade with India and the East.

2) Companies based on Public Interest :-

i) Private limited company :- Acc to sec.3 of Indian co's
Act, a Pvt Co means a co that has a min Paid up
Capital of one lakh or such higher paid up capital
     → Min Paid up capital of one lakh
     → No rights to transfer shares
     → limits no of People by 50 (excluding present and
     Past employees)
     → No invitation or acceptance of deposits
     → should end with the words " private limited "
     (Pvt. Ltd.)

ii) Public co:- i) It is not a Pvt co

→ Min. paid up capital 5 lakhs. or more

→ Allows transfer of its shares

→ Can issue prospectus to raise the capital.

→ Min members should be 7 and any no.

The name of the co. end with the word "limited" (Ltd.).

(iii) Government company:-

Sec 617 of ICA, 1956 defines a govt. co. as "any co. in which not less than 51 percent of the paid up share capital is held by the Central govt, or by any state govt (or)(S).

Ex:- NTPC, BHEL, HMT, SAIL, HPT (Hindustan Post. trust) etc;.

3) Based on liability:-

→ Unlimited co.

→ Limited co.

→ Companies limited by guarantee.

4) Based on Nationality:-

→ foreign co. - It is a co. incorporated outside India but established a place of business within India. These come under the purview of the ICA, 1956.

→ Indian co :- co's incorporated in India under the Indian companies Act, 1956 (ICA).

Formation of Joint Stock Co (JSC):-

It includes two stages

i) to obtain certificate of Incorporation

ii) "   "   "   "   commencement of business.

Main documents in Co formation :-

   (a) Memorandum of Association (MOA)
   (b) Articles of Association (AOA)
   (c) Prospectus.

Co-operative Societies :-

Defi:- Acc to International Labour organisation (ILO), a co-operative Society is "an association of persons usually of limited means who have voluntarily joined together to aacheive a common economic end."

Features :-
→ It is a voluntary association
→ A Seperate legal entity
→ compulsory legislation
→ Membership
→ One member — one vote.
→ No transferability of shares
→ Service objective

Advantages :-
→ voluntary org^n
→ Equal voting rights
→ limited liability
→ Zero speculation
→ self government
→ larger identity of interests
→ Govt support.
→ Paralias
→ Exploitation eliminated

Disadvantages
→ Shortage of funds
→ Inefficient mgt
→ Many legal formalities
→ Misuse of funds
→ Recurring loss.

Public Enterprises :-

Public enterprises occupy an imp position in the Indian economy. These provide the substance and heart of the economy. The concept of public enterprises in India dates back to the era of pre-Independence.

Genesis of Public Enterprises :-

→ Higher Production
→ Greater employment
→ Economic equality and
→ Dispersal of economic power.

forms of Public Enterprises :-

Public enterprises can be classified into three forms.

(a) Departmental undertaking
(b) Public corporation
(c) Government company.

(a) Departmental undertaking :-

Earliest form of public enterprise. Govt appoints a Managing director (normally a civil servant.). It does not have the budget of its own, it draws money from the govt exchequer and deposits when it has surplus.

Ex:- Railways, Posts, AIR, Doordarshan, Defence undertakings like DRDL, DLRL, ordinance factories etc.

features :-

→ under govt control
→ More financial freedom

→ Budget, accounting and audit controls
→ more a govt orgⁿ, less a business orgⁿ.

Public corporation :-

A public corporation is defined as a "body corporate created by an Act of Parliament or legislature and notified by the name in the official Gazette of the Central & State Govt. It is a corporate govt entity having Perpetual Succession and common seal with powers to acquire, hold, dispose off Property, Sued and to be Sued by its name."

(IFCI)

Ex:- LIC, UTI, Industrial finance Corporation of India, Damodar Valley corporation etc.,

Government company :-

Sec' 617 of the Indian Companies Act, defines a govt Co as "any co in which not less than 51% of the Paidup Share Kapital is held by the Central govt or by any state govt and includes a co which is Subsidary of govt co.

Ex:- Industrial undertakings - HMT, Indian Telephone Industries (ITI) and so on.

Promotional agencies - NIDC, NSIDC, and so on.

New Economic Environment :-

The new Economic environment comprises the recent developments that have taken place in the environment of business. The term envt refers to all those factors that are external to the individual business unit / Industry.

Envt is basically macro in nature and business firm is micro in nature.

Key aspects :-

(a) The new Industrial policy 1991.

(b) Exports and Imports policies - EXIM policy.

(c) Policies regarding sales tax, Income tax, Wealth Tax, Property tax etc;.

(d) Govt policy regarding Concessional loans, Subsidies and loan waivers to industry, agriculture and educational sectors.

(a) New Industrial policy, 1991 :-

The industrial policy resolution of 1956 emphasised on increasing state involvement through the public sector. The main objective of acheiving economic growth, was by allowing Public sector to grow fast and attain "commanding heights". The statement of new Industrial policy 1991 appears to be the reversal of the 1956 policy.

Objectives :-

→ To speed up liberalisation measures.

→ To correct the distortions or weakness that might have crept in

→ To maintain sustained growth in Productivity and gainful employment.

→ To attain international competitiveness.

The Industrial policy 1991, is called the New Industrial policy 1991."

features of NIP 1991:-

(a) Doing away with Industrial licensing requirements.

(b) Diminishing role of Public sector.

(c) Incentives and concessions for foreign investment and leg technology.

(d) Removal of Compulsory convertibility clause.

Critical Evaluation of the NIP :-

→ Growth of new economy companies.

→ Economy bailed out.

→ New breed of Entrepreneurs.

→ FDI and new technologies

→ Healthy competition

→ Sustained economic growth.

foreign Trade policy :-

The liberalisation measures taken since 1991 have been addressed to augment the production of necessary goods and services in the Indian economy. These measures can be grouped under (a) Trade and capital flow reforms, (b) Industrial deregulation, (c) Public enterprise reforms (including divestments), and (d) Financial sector reforms.

Trade and Capital Flow Reforms

The major trade reforms comprised:

- Devaluation of Indian rupee (to restore India's competitiveness)
- Introduction of convertibility of the rupee on trade account and, later, current account
- Allowing foreign equity participation up to 51 per cent in service areas
- Delinking technology transfer from equity investment as a measure of flexibility in the choice of technology

Foreign companies could bring patented products for sale to India, they are now eligible for appointment as technical advisors or management consultants. They could also deal in financial matters with the Indian public in terms of accepting deposits or borrow, if necessary and repatriate profits.

Foreign Trade Policy An outward looking and liberal trade policy is one of the main features of India's economic reforms. The trade policy:

- rationalised tariff levels.
- dispensed with the practice of channelising large part of the exports and imports through the public sector. This gave an opportunity to the private sector to gain access to foreign trade.
- provided a variety of export promotion measures (under the Exim Policy[3] 1992–97) such as setting up export oriented units from agricultural and allied sectors, simplification of the Export Promotion Capital Goods Scheme, broadened the scope of export processing zones, duty-free import for export under the advance licensing scheme, setting up of exporters' grievance cell in the Ministry of Commerce, etc. Enhancing global competitiveness of the Indian economy is one of the major thrust areas of the present Exim Policy of 2002–07.
- allowed exporters exim[4] scripts equal to 30 to 40 per cent of their export earnings to import even restricted items. This was replaced by the dual exchange rate system which was further replaced by the unified exchange rate during 1993–94 under the liberalised exchange rate mechanism.
- reduced drastically quantitative restrictions by introducing a streamlined and simplified system of export and import licences (to boost exports and imports).

Imports Most goods are freely importable on payment of a specified customs duty. However, imports are restricted in the case of a small number of goods on the bases of security, health and environmental protection. Also, these are such goods that require low skills and can be produced by the small-scale or cottage industries by employing a large number of people.

There are no quantitative restrictions on the import of capital goods and intermediaries. However, in the case of second hand capital goods, only those with more than a 10-year usage can be imported, with a

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3 Export–Import Policy
4 Export–Import scripts

specific licence from the Government of India. In other words, second hand goods with less than a 10-year usage cannot be imported.

No duty is charged in respect of raw materials, intermediaries, components etc meant for the manufacture of goods for export and these can be imported against a licence. Input-output norms have been laid down and these will determine the amount of duty free import of inputs allowed for specified products meant for export. Unless importers adhere to specified value-addition norms and export obligations, duty-free licences will not be issued.

The Export Promotion Capital Goods (EPCG) scheme provides for import of new capital goods at a concessional basic customs duty rate of 5 per cent, against an export obligation to be fulfilled over a specified period.

Exports Export of goods is allowed freely, except for a few items in the negative list. Exports are the major focus of India's trade policy, and a thrust in the new economic policy of the country. The export promotion package is better with incentives offered anywhere in the world. The major focus has been to motivate foreign investors to set up Export Oriented Units (EOUs) in India.

Export profits were initially exempt from income tax. (The proportion of the export turnover to the total turnover decides the profit.) However, tax exemption is being phased out over a period of five years at the rate of 20 per cent annually with effect from financial year 2000–01.

Tariff liberalisation The tariff rates have been lowered over the past seven years, from the peak rate of 350 per cent in June, 1991, to 35 per cent in 2000–01. Most imports of capital goods attract basic customs duty at the rate of 25 per cent. Import duties on equipment are lowered for projects in specific sectors. The tariff structure is favourable for those companies that import equipment to set up projects in the infrastructure sector.

Industrial Deregulation

The industrial sector, which was tied up by many regulations such as the MRTP Act, etc. was freed by appropriate deregulation in the NIP, 1991.

Some of the major features of deregulation were:

(a) *Industrial licensing abolished:* Except for establishments in the health, strategic and security sectors, the new industrial policy has abolished licensing in all other industries irrespective of the level of investment.

(b) *Limit on the size of companies:* Enforced earlier under the MRTP Act, was scrapped to enable the industrial units grow optimally and derive the benefits of scale economies.

(c) *Simplifying, the industrial location policy:* There is no need to, for instance, obtain industrial approval from the Centre except for industries subject to compulsory licensing for projects to be set up in locations other than cities of more than one million population.

(d) *Phased manufacturing programmes* for new projects, introduced earlier to encourage indigenisation in manufacturing, have been abolished. It was felt that there is no need for enforcing the local content requirements on every case, particularly in the light of substantial reforms made in the trade policy.

(e) *Removal of mandatory convertibility clause:* Financial institutions can no longer take the option of converting part of their loans into equity of newly-funded projects.

Public Sector Reforms (Including Disinvestment)[5]

Historically, public sector enterprises (PSEs) have played a prominent role in the industrialisation of India. Investment in the public sector was pumped over the past four decades to take the Indian economy to 'commanding heights'.[6] The volume of investments in PSEs grew from Rs 290 million in 1951 to Rs 2,301 billion in 1999. The number of enterprises grew from five in 1951 to 240 in 1999.

The past performance of the public sector reveals that productivity was low and, as a result, their profitability was also poor. Consequently, the government has been emphasising the need to upgrade productivity, project management, technology, R&D, and human resource development in the recent years.

Public sector enterprises have been called 'white elephants' consuming huge amounts of public funds. They were originally conceived as 'engines of economic growth'. But most of them proved contrary in the past five decades. With the result, the NIP focused on the following major reforms including disinvestment in the public sector.

- Restructure and revive potentially viable public sector enterprises. Profit making PSEs to get more managerial autonomy for better performance
- Bring down the government equity in all non-strategic PSEs to 26 per cent or lower, if necessary. Partial disinvestment of equity in select PSEs.
- Promote private sector competition in areas where social considerations are less significant
- Close down those PSEs that cannot be revived and dispose off burdensome or loss making PSEs.
- Protect the interest of workers through retraining and rehabilitation programmes by creating a special fund called the National Renewal Fund (NRF).

The government established a disinvestment commission in 1996 for making recommendations regarding disinvestment in select PSEs. The commission, with support from external consultants and administrative ministries, made recommendations for all the 43 PSEs referred to it.

Disinvestment is viewed both as positive and negative. It is a positive measure in the sense that it enables PSEs to become dynamic in a free market economy. Sale of PSE shares was criticised as frittering away the nation's wealth.[7] Recent deals such as Videsh Sanchar Nigam Limited (VSNL) and Bharat Aluminium Company (BALCO) support this viewpoint. For instance, BALCO was sold off for one-tenth of its value despite the fact that it is a profit-making unit. Disinvestment, as a current trend, is discussed in Box 30.1.

Exit Policy   The staff in PSEs is so substantially large that a defined policy was essential regarding issues such as retraining and redeployment in the event of their closure or disinvestment. Profit-making public enterprises, such as nationalised banks, BHEL, etc. realised that one way to remain competitive is to shed excess staff. As part of this strategy, they announced voluntary retirement schemes or the golden handshake. Many employees availed of these schemes. In case of loss-making or sick units, there was no alternative except retrenching the staff and paying them retrenchment compensation. Some of them could be retrained or even redeployed in other government organisations.

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5. Disinvestment is the form of transfer of a part of the ownership of a public enterprise to private sector enterprise.
6. Words of Pandit Jawaharlal Nehru, the first Prime Minister of independent India.
7. R.K. Mishra, R. Nandagopal, and A. Lateef Syed Mohammad, 'Sale of Public Enterprise Shares—Frittering Away Nation's Wealth, *Economic and Political Weekly*, November 27, 1993, p. 163.

Box 12.1   Disinvestment, the Current Trend

The Government of India has been striving hard for the last 15 years to disinvest all public enterprises including the profit-making ones. The long-term benefits of disinvestment or privatisation are:

(a) Financial burden of the government is reduced.
(b) Public finances can be improved.
(c) By introducing competition, market discipline can be ensured.
(d) Infrastructure growth can be funded.
(e) Ownership is widely distributed.
(f) Essential services can be depoliticised.

Disinvestment yields short-term benefits also. By offering 10 percent of the equity of successful PSUs, the entire market can be rejuvenated and the ailing economy can be put on the growth path. Thus, disinvestment has been a cure for many ailments in the economy. According to Price WaterhouseCoopers' report, over $1 trillion worth of assets and services have been transferred to the private sector in over 100 countries worldwide.

The first round of disinvestment was begun by the PV Narasimharao-Manmohan Singh team in 1991. Some of the prominent public sector units that have been disinvested include Modern Food Industries Limited (MFIL), Bharat Aluminium Company Limited (BALCO), CMC Limited (CMC), Videsh Sanchar Nigam Limited (VSNL), Paradeep Phosphates Limited (PPL), Hindustan Zinc Limited (HZL), Maruti Udyog Limited (MUL) Indian Petrochemical Corporation Limited (IPCL), etc.

Methods of Disinvestment There are many methods of disinvestments. They are: (a) offering equity to retail and institutional investors through domestic public issue (b) issue of global depository receipts (GDR) to investors in overseas (c) Government selling part of its share in one PSU to other PSUs (this is called *cross holding*) (d) government's financial institutions buying government's stake in select PSUs and holding them till any third buyer comes forward (this is called *warehousing*) (e) government retaining its stake up to 26 percent in the PSU to protect its interest (this is called *retaining golden share*) (f) selling of a major portion of government's stake to a strategic buyer and handing over management control. (This is called strategic sale method. Under this method, the price of disinvestments is marketbased.) (g) Selling shares at different prices to different types of investors such as the retail investor and institutional investors (this method is called differential pricing).

The policy of retraining, redeployment and retrenchment compensation followed in restructuring public enterprises is called exit policy. It is intended to address the social issues resulting from loss of jobs, like frustration among employees, etc. By creating a National Renewal Fund, the government has been able to address the social aspect of ensuring competitive efficiency in a free economy. However, the transition from being a protected economy to being a market-friendly economy has been expensive in terms of loss of employment, consumption, purchasing power and, thereby, overall productivity. This calls for administering the exit policy with a humane approach.

Financial Sector Reforms

Financial sector reforms can broadly be discussed under two broad heads: (a) Financial sector reforms for the banking sector (b) Financial sector reforms for the insurance sector.

(e) *Increased autonomy:* Banks, henceforth, will enjoy increased autonomy. Each nationalised bank can fix, vary and modify, its lending rates and interest rates on deposits based on their own profitability. The Reserve Bank of India does not interfere any more in this respect.

(f) *Strict supervision on banks:* A supervisory board is being established to intensify the supervision of banks and other financial institutions.

(g) *Bank funds spared:* The fiscal needs of the government cannot be met with bank funds.

(h) *Lower SLR and CRR:* The statutory liquidity ratio (SLR) requirements are slashed down to 25 per cent. The cash reserve ratio (CRR) for banks is reduced to 10 per cent.

(i) *Encourages use of indirect monetary control instruments:* The use of instruments such as credit cards etc is encouraged.

(j) *Initiates structural changes:* The necessary structural changes for turning around sick financial institutions and banks have been initiated.

(k) *Reduced minimum government shareholding:* Minimum Government shares in nationalised banks has been reduced to 33 per cent.

(l) *Revised norms:* There are new norms for entry of new banks in the private sector.

(m) *Social responsibility factor:* In case of banks, larger funds are available at concessional rates of interest. Thus, the social responsibility factor is also taken care of.

Financial Sector Reforms (for the Insurance Sector) II

So far, the Government of India owned both life and other insurance business in India. The Life Insurance Corporation of India (LIC) and General Insurance Corporation (GIC) of India along with its four subsidiaries (United India Assurance, Oriental Insurance, New India Assurance and National Insurance) were the major players. After the insurance sector was opened to private players, companies like Tata AIG, ICICI-Prudential Life Insurance, Max New York Life Insurance company Limited, etc. offer a variety of insurance policies and schemes.

Insurance regulatory and development authority (IRDA)

The Insurance Regulatory and Development Authority (IRDA) has been constituted under the IRDA Act, 1999, as the Indian insurance industry regulator. The IRDA is empowered to regulate and promote and be responsible to ensure orderly growth in the Indian insurance industry.

PRIVATISATION

Privatisation means 'increasing the role of market forces'. In the context of privatisation of public enterprises, it means *inducting private ownership in State-owned public enterprises with a strategy to reduce the role of government in business.* Privatisation does not necessarily involve a change in ownership. A public enterprise is said to be privatised if private management and control figure on the board of directors. The privatisation wave has swept the world. Britain, Portugal, East European countries, Russia and China are some of the countries which have also resorted to privatisation.

Why Privatisation?

Privatisation is resorted to for any one or more of the following reasons:

• To raise revenues for the government through sale of assets of public enterprises.

• To extend the State ownership to private entrepreneurs.
• To improve efficiency through competition.
• To improve the performance of the a Public Sector Enterprise (PSE) when it is not doing well in terms of (a) return on capital employed, (b) contribution to national exchequer, (c) rate of capacity utilisation, (d) number of patents or new products developed through research and development.

Privatisation may take one or more of the following forms:

(a) **Liquidation** The assets of the public enterprise, in case of liquidation, are sold off to a private entrepreneur for a consideration.

(b) **Management buyout** Here employees may form a cooperative and take over the ownership of the PSE. They may raise the necessary finances from financial institutions for this purpose. They also get dividends as owners. The union finance minister announced in his budget speech of 1988 that five per cent of capital issues would be reserved for employees.

(c) **Holding company pattern** A holding company is one which has working control of one or more companies called subsidiaries. It was a part or whole of the share capital of subsidiaries. The main purpose of holding company is to own shares in other companies and to exercise control over the same.

(d) **Liberalisation** Liberalisation as a strategy of privatisation refers to an attempt to permit and promote competition in areas where previously there was none. Earlier road transport was totally controlled by state road transport corporations. Today, the government has permitted private bus operators to run their buses on State Road Transport Corporation (SRTC) routes. Such a policy leads to competition and passengers are the real beneficiaries.

(e) **Leasing** Here, the government transfers the physical possession of a PSE but not its ownership to a private agency with certain conditions and for a specific period. After the expiry of the lease period, the government takes back the possession of the PSE. The major advantage here is that the PSE may experience a turnaround during the period of lease in terms of say, reduction in wastage and costs or better degree of efficiency. The government reserves the right to cancel the lease agreement at any stage.

(f) **Denationalisation** When the government transfers the ownership of a public enterprise to entrepreneurs in the private sector, the public enterprise is said to be denationalised.

(g) **Joint venture** When part of the ownership (ranging from 25–50 per cent) in public enterprise is transferred to the private sector, it is said to be a joint venture. The percentage of transfer in the ownership is governed by a number of factors such as government policy, financial condition of the PSE, etc.

(h) **Restructuring** The government may prefer to restructure ailing or sick PSEs by redefining or restructuring the whole set of operational or commercial activities or just the issues governing financial matters.

(i) **Disinvestment** One of the main objectives of privatisation is to raise resources for the government. In India, disinvestment is the process of withdrawing the investments made by the government in a public enterprise. In keeping with the NIP of 1991, the government has been following a disinvestment strategy in respect of PSEs. Disinvestment as a current trend has been discussed earlier under public sector reforms.

(j) Franchising or Contracting out When private firms are allowed and encouraged to make bids to run services that were previously exclusively run by the public sector, the work is said to be franchised or contracted out. For example, municipalities entrusting the work of cleaning roads and clearing the garbage and debris to private agencies instead of getting these done from the employees of municipality, Andhra Pradesh.

(k) Operational strategies Several measures can be initiated for the privatisation of a public enterprise without resorting to any of the above measures. For instance, the top management of a public enterprise may be directed to:

    (i) *increase production* by offering special incentives and overtime to the workers to meet the market demand.

    (ii) *outsource* some of its operations where the public enterprise does not have core competencies.

    (iii) *buy from the market* by special tenders such items as may be costly to produce internally.

    (iv) *raise funds* from the national or international capital market, and so on.

These operational strategies provide operational autonomy for the public enterprise to function as per the market requirements while reducing the degree of government control and interference in its day-to-day administration.

GLOBALISATION

Globalisation means 'integrating' the economy of a country with the world economy with a view to eliminating supply bottlenecks, improving investment climate, providing a wide choice of quality goods and services to the ultimate consumers. Through globalisation, India can attract huge foreign direct investment in different sectors of the economy, including infrastructure. More details on how India can projects its strengths while attracting foreign direct investment are available in Box 12.4.

In general, globalisation is characterised by the following parameters:

- *Reduction of trade barriers* among different countries across the world.
- Creation of a *conducive environment* in which there can be perfect mobility of factors of production such as capital and human resources among countries. For example, developed countries have abundance of capital and developing countries such as India have abundance of skilled, semi-tries and labour can move from developing countries to developed countries.
- Ensuring *free flow of technology* across the countries. For example, companies from developed countries must be willing to provide latest technology to collaborative firms in developing countries.

Factors that Led to Globalisation

The following are some of the major factors that paved the way for India to adopt the globalisation policy.

- Large deficit in balance of payments during 1990–91
- Gulf War in 1990–91
- Trade deficit as a result of steeply rising import bill with a decline in exports
- Declining foreign remittances
- External commercial borrowings at higher rates of interest

- Declining investors' confidence
- Downgrading of India's credit rating by international agencies
- Political uncertainty
- Excessive outflow of funds brought in by foreign institutional investors
- Dwindling foreign exchange reserves hardly adequate to meet import requirements for two weeks
- The terms and conditions as put forth by the World Bank.

All these factors pushed the Indian economy to a corner in such a way that it had no alternative but to bounce back with a series of reforms aimed at stabilisation and structural adjustments in the economy. These reforms can be classified into the following categories:

(a) *stabilisation measures* to cut down the fiscal deficit and the rate of growth of money supply

(b) *liberalisation measures* to enhance productivity by relaxing the restrictions on production, investment and prices so that it becomes a 'market-driven' economy from an 'administered or protected' economy.

(c) *globalisation measures* that involve removal of the restrictions on the international flows of capital, technology, goods and services.

Thus, globalisation is a part of the structural adjustment programme. It is interesting to note that all measures are complementary and not mutually exclusive. One leads to the other. For instance, without controlling fiscal deficit and growth of money supply, the rate of inflation and balance of payments cannot be controlled. Unless an economy is stable in terms of growth, it may not be in a position to attract foreign investment.

Policy Measures Towards Globalisation

1. Full Convertibility
A country's currency is fully convertible when it allows its own exchange rate to be determined in the international market without official intervention. The Government of India has been lifting exchange control measures in a phased manner and is working towards full convertibility. Presently, India has full convertibility on the current account, which implies freedom to buy or sell foreign exchange for selected international transactions such as payments of imports, interest on loans, etc.

2. Liberalising Imports
This is more of a strategic measure that makes available to domestic producers quality machinery and other key inputs, which are likely to facilitate quality output for exports. The government has, in keeping with the requirements of the World Bank, to bear lowering import tariffs on all goods, except those mentioned in the 'negative' list and allowing free import of all goods, including capital goods that are not included in the negative list. The custom duties, ad valorem[9] and other surcharges have been drastically reduced to facilitate imports. India, as a member of the World Trade Organisation, is committed to phasing out quantitative restrictions.

3. Attracting Foreign Capital
The size of foreign direct investment is one of the major indicators of globalisation of an economy. The NIP, 1991, announced a list of high technology and investment priority industries where automatic permission was granted for direct foreign investment up to 51 per cent foreign equity. This list covers different industries such as entertainment, electronics, food processing, etc. and the service sector. Foreign companies can set up power plants in India with 100 per cent equity

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9. This is levied as a percentage of the price or value of the unit of output.

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participation. They can invest in Indian capital markets provided they are registered with the Securities and Exchange Board of India (SEBI) and approved by the Reserve Bank of India (RBI). Several operational restrictions prevalent earlier have been removed. Today, foreign investors enjoy a host of privileges. They can use their trademarks in India, take back their profits to their respective native countries, deal in immovable property in India etc. and 100 per cent foreign direct investment is allowed in select sectors such as pharma, tourism, infrastructure, telecom, etc.

Consequences of Globalisation

The following are the likely consequences of the globalisation policy, if properly implemented.

1. *Trade barriers disappear:* Trade barriers disappear when the domestic economy is integrated into the global economy.
2. *Increased competition:* The degree of competition goes up. Domestic producers have to compete with foreign manufacturers. It is an opportunity to enhance domestic competitiveness through increased productivity and efficiency.
3. *Exports and imports likely to increase:* New markets can be explored and exports can be strengthened. Imports are also likely to increase.
4. *Access to WTO:* Membership of the World Trade Organisation is essential to resolve international trade discpline. India has emerged stronger, in the global market, through globalisation.

India and the WTO

India was one of the 118 countries that signed the Final Act of the Uruguay Round at Marrakesh in April 1994, which paved the way for setting up of the World Trade Organisation (WTO) in 1995. India, which was one of the founder members of General Agreement on Tariffs and Trade (GATT), has now become a founder member of the WTO. The WTO agreement was ratified on December, 1994, and this has far-reaching implications for strengthening global trade and economic growth.

It is to be noted that GATT, which was promoted by 23 countries in 1947, including India, was not a formal organisation but only a legal arrangement to promote international trade through tariff reduction, etc.

The WTO is a new international organisation set up as a permanent body to monitor trade-related activities and settle trade disputes among member countries. Its sphere of activity includes trade in goods and services, foreign investment, trade related intellectual property rights (TRIPs), trade related investment measures (TRIMs), etc.

CHANGING BUSINESS ENVIRONMENT TO POST LIBERALISATION SCENARIO

Economic reforms, as envisaged in New Industrial Policy of 1991, are now 15 year old and there is now ample evidence to assess their impact on Indian Economy. The Indian industry for over 40 years sinc independence was predominantly operating in a regulated and protected economy and hence remained a underperformer. During the implementation of LPG policies, it could sustain extremely well the pressure in the new competitive environment.

is not at all adequate. To modernise these, it calls for huge public investment in all these sectors. The Government needs to provide sufficient incentives to promote foreign direct investement into the infrastructure sector.

7. *Other Hurdles:* Till today, the economic reforms are restricted to the Central public sector units. State level public sector units are yet to be covered. Labour laws need to be amended to match the international labour legislation. The need of the hour is to scrap out the outdated enactments and thereby strengthen the legal system.

Today, one of the issues that concerns the Government of India is second generation of economic reforms. The whole world feels that India can become a superpower in the years down the line if the above hurdles are eliminated and efforts are made to implement the economic reforms with commitment and perseverance.

Clearly, the economic reforms undertaken since 1991 have been far reaching and able to unleash the growth potential of the Indian economy. As a result of reforms, the spirit of entrepreneurship is growing phenomenally as is evident from the growing number of startup companies and foreign collaborations in India. The reforms proposed in the 8th and 9th Five Year Plan were aimed at moulding the economy with appropriate deregulations and strengthening it with huge foreign investments in such a way that it can emerge as a forerunner in the Asia-Pacific region in the years to come.

Real Strength of Economic Reforms

Economic reforms are carefully sequenced, consistent and mutually reinforcing. This is evident from the fact that it could survive even the exceptionally turbulent and unfavourable Asian economic environment of 1998–99 (that badly affected countries such as Indonesia, Korea, Thailand, Malaysia, the so-called 'Asian tigers'),[13] the continuing recession in Japan and the severe financial crisis in Russia, etc. While the GDP of some of these economies declined significantly, India could survive the crisis with a marginal decline in the GDP. Indian banks continued to operate successfully with their strong capital base while some banks in this region went bankrupt.

Critical Evaluation of LPG Policies

But there is a downside of the LPG policies. The demerits are:

(a) Giants and liliputians compete   It resulted in competition among giants and Liliputs. Many Indian enterprises are relatively very small in terms of size and resources and have not been able to face competition from multinationals. Domestic producers have been the worst hit as a result of the entry of multinationals that have huge finances, superior technologies and access to policymakers in political circles. The major sufferers are the old-economy companies.

(b) FIIs more opportunistic   Foreign direct investment has been a very sensitive phenomenon and appears to be elusive. With every slight uncertainty in the economy, the inflows and outflows in foreign direct investment have fluctuated wildly. These volatile fluctuations reflect the opportunistic attitude of FIIs rather than their commitment to their marketplaces.

(c) Costly debt servicing   Borrowed funds are used in the country, for building capital assets such as infrastructure. Debt servicing has increased at an alarming rate.

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13. During 1998–99, the decline in GDP of Indonesia was over 15 per cent, South Korea and Thailand 5–7 per cent.

(d) Public sector employees disgruntled   With disvestment in the public sector, the government has undone what has been done in the last four decades. This has demotivated PSU employees.

(e) Decline in purchasing power   LPG provides a wide choice to the Indian consumer in terms of quality and variety. But the purchasing power of the average consumer has declined. Indian agriculture and small industry are the worst affected sectors due to government policies since 1991. These two sectors used to provide large employment and were a source of income generation in rural and semi-urban areas. Due to increasing competition and eroding profit margins, not only has the Indian small industry, but also the large industry in the private sector, seen tough times.

(f) Declining personal savings   With a variety of goods and services dumped by multinationals, the consumption expenditure of the people of India has gone up during the last decade. But the savings rate has declined. Targeting higher levels of economic growth with a declining rate of savings may be merely a pipe dream. The consequences of the reforms will be better known only in the long run.

(g) Disappearing competitive edge   Most business firms in the domestic industry lost their competitive capability due to factors such as diseconomies of scale, outdated technology, patronage from the government, excessive rates of interest on loans and taxation, etc. It was a piece of cake for foreign companies to conquer the Indian markets with their quality products and services.

(h) Increasing sickness in industry   The loss of business to multinationals increased the rate of sickness among the Indian industries.

(i) Unfavourable government policies   Imports are allowed in the areas reserved for the small-scale sector whereas Indian entrepreneurs are not allowed to produce in those areas. Government policies have been more conducive to multinationals in terms of granting them counter guarantees for fast-track projects. Indian firms have been deprived of such privileges.

(j) Benefits of LPG marginalised   The increase in India's share in world exports due globalisation has been very marginal but the damage it has done to the country's economy as a whole substantial.

(k) Dumping grounds   The practice of selling goods abroad at below the normal price or even below the cost in called dumping. The purpose of dumping may be to capture foreign market or eliminate competition from foreign firms. Industrially advanced countries possess a high degree of negotiation and bargaining power at the World Trade Organisation (WTO) and they have always been successful in pushing their patented products and obsolete technologies into developing countries in the name of technology transfer. Developing countries are more viewed as dumping grounds for foreign products and services for no significant benefit in return.

(l) Disguised protection   Social clauses, such as child labour, are being used to beat India particularly where Indian products are cost effective and of comparable quality. In recent years, the United States raised the issue of labour standards to protect its domestic market from the Indian carpets. When the developed countries cannot compete with the developing countries, they resort to a disguised protection measures such as invoking social clauses. The WTO has, on a number of occasions, ruled that the US has been adopting unfair trade practice by imposing such restrictions.

(m) Anti-dumping duties   Though antidumping duties refer to the duties on the products of foreign firms to discourage dumping practices, Indian firms had to face antidumping duties in US and