

# UNIT SNAPSHOT

## UGC NET MANAGEMENT

Unit I

# Management & Managerial Economics



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## ❖ What is Management?



**Management is a set of principles** relating to the functions of planning, organizing, directing and controlling, and the application of these principles in harnessing physical, financial, human and informational resources efficiently and effectively to achieve organizational goals.

Management is to forecast, to plan, to organize, to command, to co-ordinate and control activities of others” – **HENRY FAYOL**

## ❖ Management functions

List of management functions varies from author to author:

Writers	Management functions
Henry fayol	Planning, Organising, commanding, coordinating and controlling
Luther gullick	POSDCORB- Planning, organising, staffing, directing, co-ordinating, reporting and budgeting
Ralph davis	Planning, organising, controlling
Koontz and O Donnell	Planning, organising, staffing, leading and controlling

**1. Planning** - Planning is looking ahead. According to Henry Fayol, drawing up a good plan of action is the hardest of the five functions of management. This requires an active participation of the entire organization.

**2. Organizing**-An organization can only function well if it is well-organized. This means that there must be sufficient capital, staff and raw materials so that the organization can run smoothly and that it can build a good working structure.

**3. Commanding**-When given orders and clear working instructions, employees will know exactly what is required of them. Successful managers are capable of motivating a team and encouraging employees to **take initiative**.

**4. Coordinating**-When all activities are harmonized, the organization will function better. Positive influencing of employees behaviour is important in this. Coordination therefore aims at stimulating motivation and discipline within the group dynamics.

**5. Controlling**-By verifying whether everything is going according to plan, the organization knows exactly whether the activities are carried out in conformity with the plan. Control takes place in a four-step process:

- Establish performance standards based on organizational objectives
- Measure and report on actual performance
- Compare results with performance and standards
- Take corrective or preventive measures as needed

### ❖ **Management process**

As a process, management refers to a series of inter-related functions. It is the process by which management creates, operates and directs purposive organization through systematic, coordinated and co-operated human efforts. **According to George R. Terry**, "Management is a distinct process consisting of planning, organizing, actuating and controlling, performed to determine and accomplish stated objective by the use of human beings and other resources".

As a process, management consists of three aspects:

1. Management is a social
2. Management is an integrating process
3. Management is a continuous process



#### ❖ Management theories/ Thought/ Approaches/ Philosophy

- **Pre-scientific management theory**- These theories are purely based on the evolution of management thoughts. Main thinkers are, Robert own, Dupin, Charles Babbage
- **Classical theory/ Traditional theory** – Classical organization theories (By Taylor, Weber & Fayol) deal with the formal organization and concepts to increase management efficiency.

#### ➤ Taylors Scientific management theory:

Frederick W. Taylor (1856-1915) was among the first to study worker productivity and how best to optimize it. Taylor, who had a background in mechanical engineering, conducted controlled experiments that led him to develop four principles of scientific management known as "Taylorism." These principles recommend that the scientific method be used to determine the most efficient way to perform a task in the workplace instead of simply relying on the judgment or personal discretion of workers. The fundamental principles that Taylor saw underlying the scientific approach to management may be summarized as follows:

1. **Replace rule-of-thumb work methods** with methods based on a scientific study of the tasks.
2. **Scientifically select, train, and** develop each worker rather than passively leaving them to train themselves.
3. **Cooperate with the workers** to ensure that the scientifically developed methods are being followed.
4. **Divide work nearly equally between managers and workers, so that the managers apply scientific management** principles to planning the work and the workers actually perform the tasks.

➤ **Fayols administrative theory:**

**Henri Fayol (1841-1925)**, a mining engineer and senior executive in France, is considered to be one of the most influential contributors to modern management theory. Unlike Taylor, who improved productivity by analyzing workers' actions, Fayol took a top-down approach.

**Fayol developed 14 principles of administration that outline how managers** should organize and interact with employees.

14 Principles of Management	
1	Specialization of labor
2	Authority
3	Discipline
4	Unity of Command
5	Unity of Direction
6	Subordination of Individual Interests
7	Remuneration
8	Centralization
9	Scalar Chain (Line of Authority)
10	Order
11	Equity
12	Personnel Tenure
13	Initiative
14	Esprit de Corps

➤ **Webbers bureaucracy theory:**

Max Weber (1864-1920) was a German sociologist who developed the bureaucratic management theory, which focuses on structuring organizations in a hierarchical fashion with clear rules of governance.

**Weber's principles** for creating an ideal bureaucratic system include:

- clear division of labour,
- a hierarchical chain of command,
- separation between the personal and organizational assets of the owner,
- meticulous record keeping and documentation,
- strict and consistent regulations and rules, and
- the selection and promotion of employees based on qualifications and not personal relationships or personalities

❖ **Behavioural theory** - The behavioral management theory is often called the human relations movement because it addresses the human dimension of work.

➤ **Human relation theory:**

Elton Mayo (1880-1949) was an Australian born psychologist and Harvard researcher who helped laid the foundation for the human relations movement. Mayo conducted experiments aimed at improving productivity among dissatisfied employees at the Hawthorne plant in Chicago in the 1920s.

- He changed working conditions, including lighting, temperature, break times, and the length of the workday but observed that regardless of the change, there was always an increase in productivity.
- This led Mayo and his team to conclude that increases in workers' performance weren't due to changes in their environment but a result of the researchers paying attention to them and of feeling valued as part of a unified group collaborating in the study.

➤ **Behavioural science theory:**



**Behavioural theorist** takes a complex view of the work situation. They adopt the concepts from various disciplines and test them in business organisation.

### ❖ **Modern management theory:**

**Following can be included in it:**

- **Contingency theory-** Also known as **situational approach**. This theory suggests that the action must be on the basis of situation than universality
- **System theory-** According to this theory an organisation is a dynamic and interrelated set of parts. Each part represents a department or sub system
- **Quantitative theory-** It simply means the application of scientific methods to solve the problems. It's also known as operations research theory
- **Operational theory-** In this the management process is considered as a set of management functions which distinguishes managers from non-managers
- **Empirical theory-** It is also known as case study and is developed by Earnest dayol, it studies the experiences of practicing manager and previous managers

### ❖ **What are management skills?**

Management skills can be defined as certain attributes or abilities that an executive should possess in order to fulfil specific tasks in an organization.

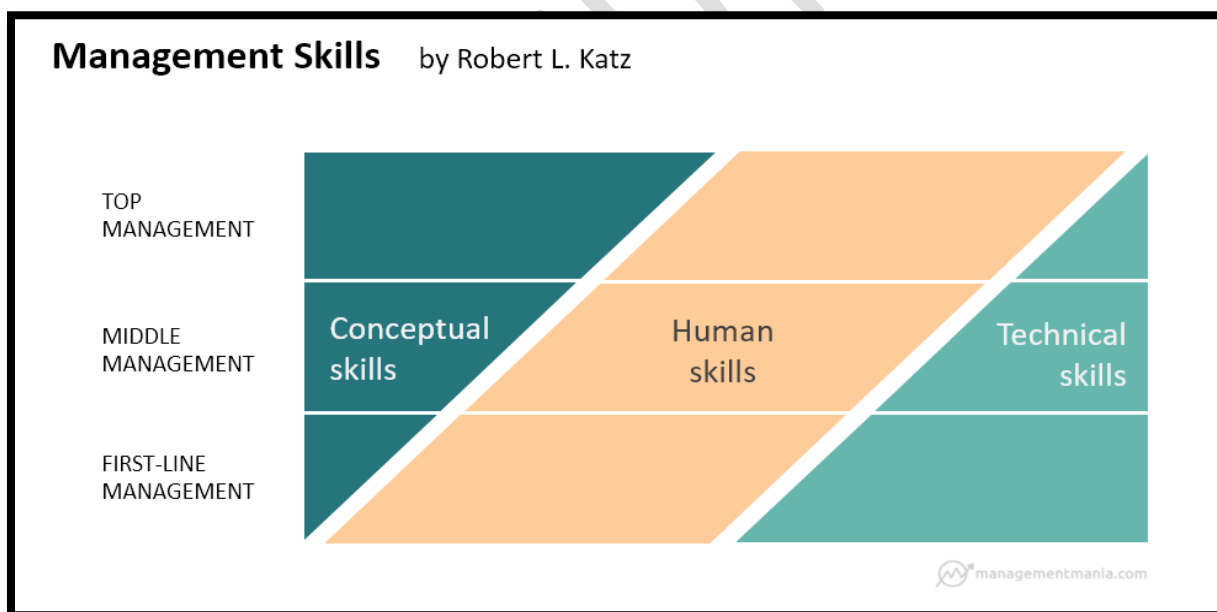
### **Types of Management Skills**

**According to American social** and organizational psychologist [Robert Katz](#) the three basic types of management skills include:

- **Technical Skills-** Technical skills involve skills that give the managers the ability and the knowledge to use a variety of techniques to achieve their objectives. These skills involve
  - operating machines and software,
  - production tools, and pieces of equipment

- skills needed to boost sales,
- design different types of products and services, and
- market the services and the products.

- **Conceptual Skills**-These involve the skills managers present in terms of the knowledge and ability for abstract thinking and formulating ideas. The manager is able to see an entire concept, analyze and diagnose a problem, and find creative solutions. This helps the manager to effectively predict hurdles their department or the business as a whole may face.
- **Human or Interpersonal Skills**-The human or the interpersonal skills are the skills that present the managers' ability to interact, work or relate effectively with people. These skills enable the managers to make use of human potential in the company and motivate the employees for better results.



- **10 different but highly interrelated roles that managers perform- HENRY MINTZBERG**

❖ **Inter-personal roles**

1. Figurehead role
2. Leader role



### 3. Liaison role

#### ❖ Informational role

1. Monitor role
2. Disseminator role
3. Spokesperson role

#### ❖ Decisional role

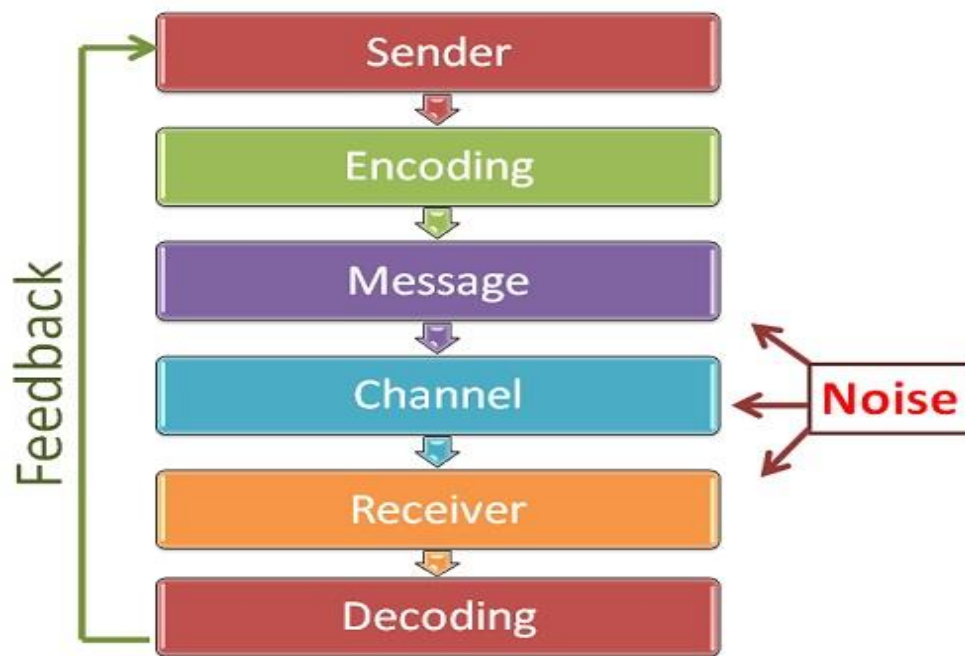
1. Entrepreneur role
2. Disturbance handler role
3. Resource allocator role
4. Negotiator role

#### ❖ Communication

A manager may be highly qualified and skilled but if he does not possess good communication skills, all his ability becomes irrelevant. A manager must communicate his directions effectively to the subordinates to get the work done from them properly.

#### ❖ Communications Process

**Communications is a continuous process** which mainly involves three elements viz. sender, message, and receiver. The elements involved in the communication process are explained below in detail:



1. **Sender** - The sender or the communicator generates the message and conveys it to the receiver. He is the source and the one who starts the communication
2. **Message**- It is the idea, information, view, fact, feeling, etc. that is generated by the sender and is then intended to be communicated further.
3. **Encoding**- The message generated by the sender is encoded symbolically such as in the form of words, pictures, gestures, etc. before it is being conveyed.
4. **Media**- It is the manner in which the encoded message is transmitted. The message may be transmitted orally or in writing. The medium of communication includes telephone, internet, post, fax, e-mail, etc. The choice of medium is decided by the sender.
5. **Decoding**- It is the process of converting the symbols encoded by the sender. After decoding the message is received by the receiver.
6. **Receiver**- He is the person who is last in the chain and for whom the message was sent by the sender. Once the receiver receives the message and understands it in proper perspective and acts according to the message, only then the purpose of communication is successful.

**7. Feedback-** Once the receiver confirms to the sender that he has received the message and understood it, the process of communication is complete.

**8. Noise-** It refers to any **obstruction that is caused by the sender, message or receiver during the process of communication**. For example, bad telephone connection, faulty encoding, faulty decoding, inattentive receiver, poor understanding of message due to prejudice or inappropriate gestures, etc.

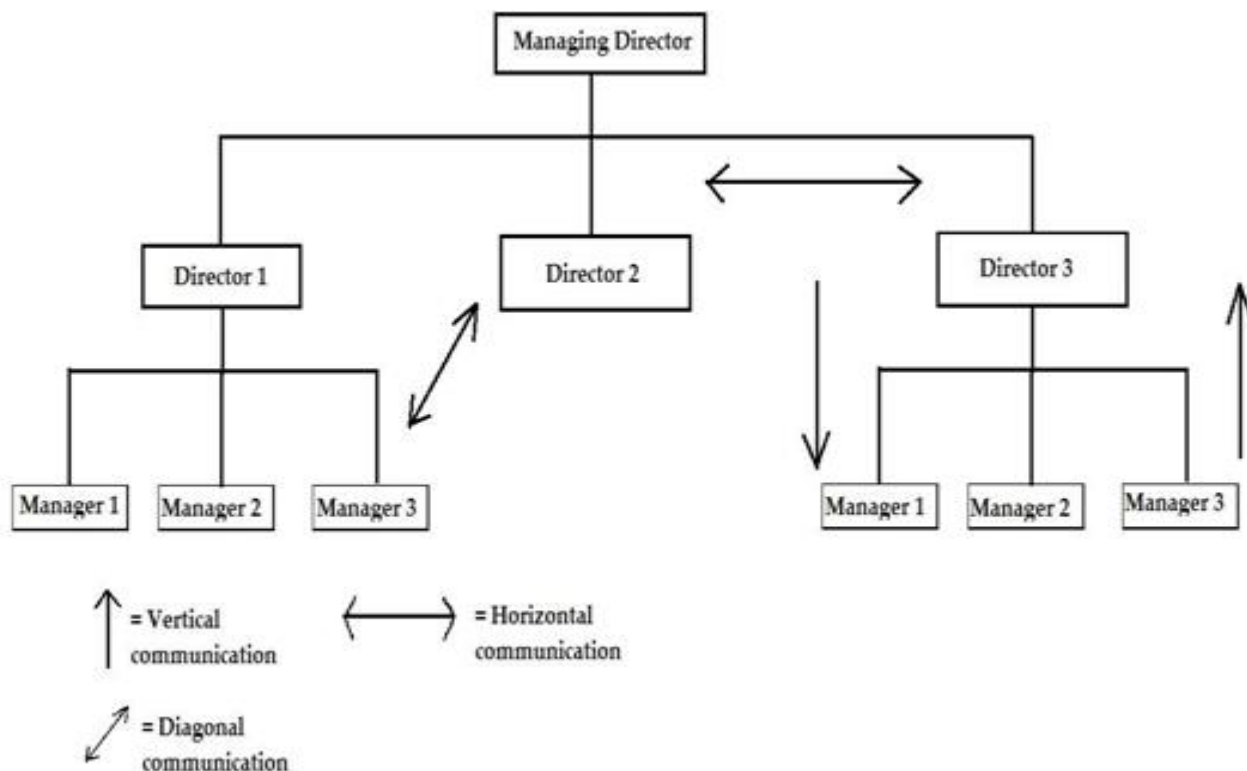
### Types of Communication

#### 1. Formal Communication:

Formal communications is the one which flows through the official channels designed in the organizational chart.

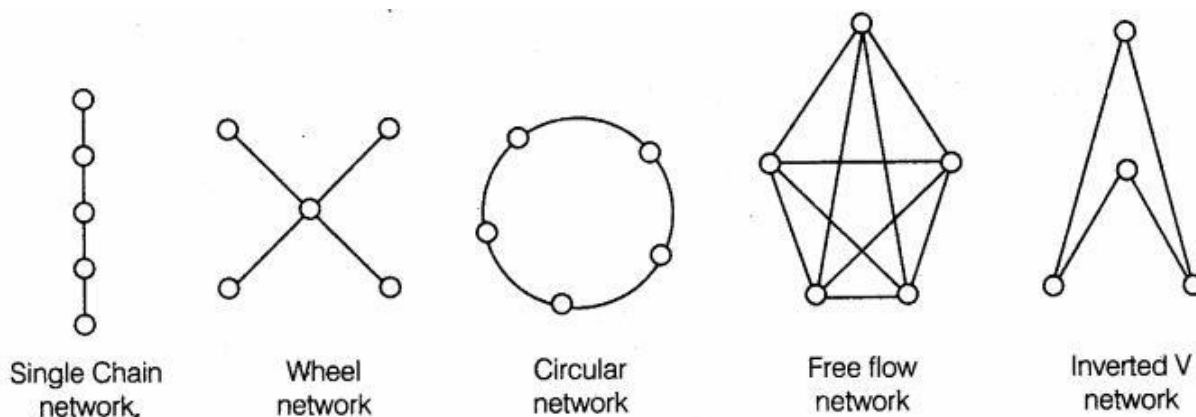
**Some of the most important types of direction in formal communication are:**

1. Downward
2. Upward
3. Horizontal or Lateral
4. Diagonal or Cross-wise



- **Vertical Communication:** Vertical Communications as the name suggests flows vertically upwards or downwards through formal channels.
  - Upward communication refers to the flow of communication from a subordinate to a superior
  - Downward communication flows from a superior to a subordinate.
- **Horizontal Communication:** Horizontal or lateral communication takes place between one division and another. For example, a production manager may contact finance manager to discuss the delivery of raw material or its purchase.
- **Diagonal or crosswise communication:** takes place when people working at the same level interact with those working at a higher or lower-level of organisational hierarchy and across the boundaries of their reporting relationships.

**Types of communication networks in the formal communication:**



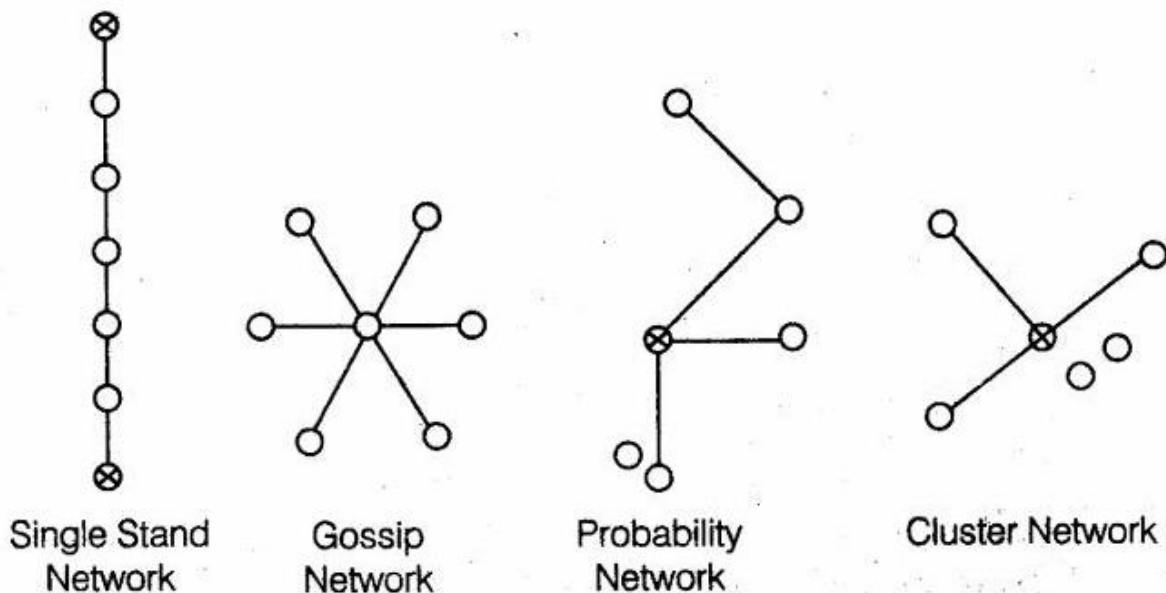
- **Single chain:** In this type of network, communications flows from every superior to his subordinate through a single chain.
- **Wheel:** In this network, all subordinates under one superior communicate through him only. They are not allowed to talk among themselves.

- **Circular:** In this type of network, the communication moves in a circle. Each person is able to communicate with his adjoining two persons only.
- **Free flow:** In this network, each person can communicate with any other person freely. There is no restriction.
- **Inverted V:** In this type of network, a subordinate is allowed to communicate with his immediate superior as well as his superior's superior also. However, in latter case, only ordained communication takes place.

## 2. Informal Communication:

**Any communication that takes place without** following the formal channels of communication is said to be informal communication. The Informal communication is often referred to as **the 'grapevine'** as it spreads throughout the organization and in all directions without any regard to the levels of authority. Informal channels **are also used by the managers to transmit information** in order to know the reactions of his/her subordinates.

### Types of Grapevine network:



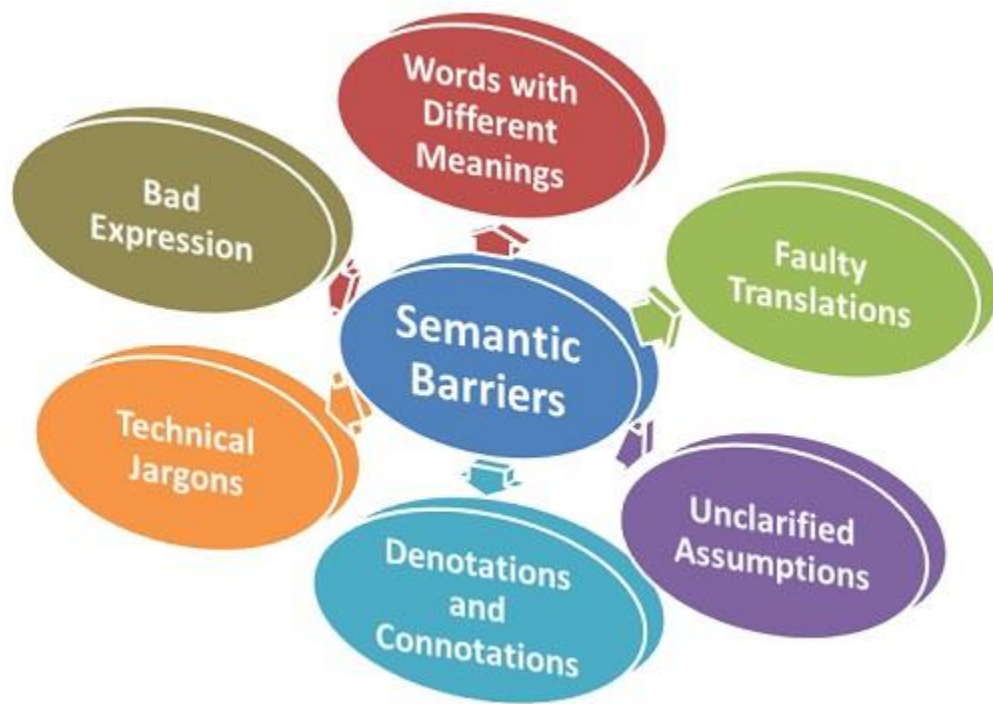
- **Single strand:** In this network, each person communicates with the other in a sequence.
- **Gossip network:** In this type of network, each person communicates with all other persons on the non-selective basis.

- **Probability network:** In this network, the individual communicates randomly with other individuals.
- **Cluster Network:** In this network, the individual communicates with only those people whom he trusts. Out of these four types of networks, Cluster network is the most popular in organizations.

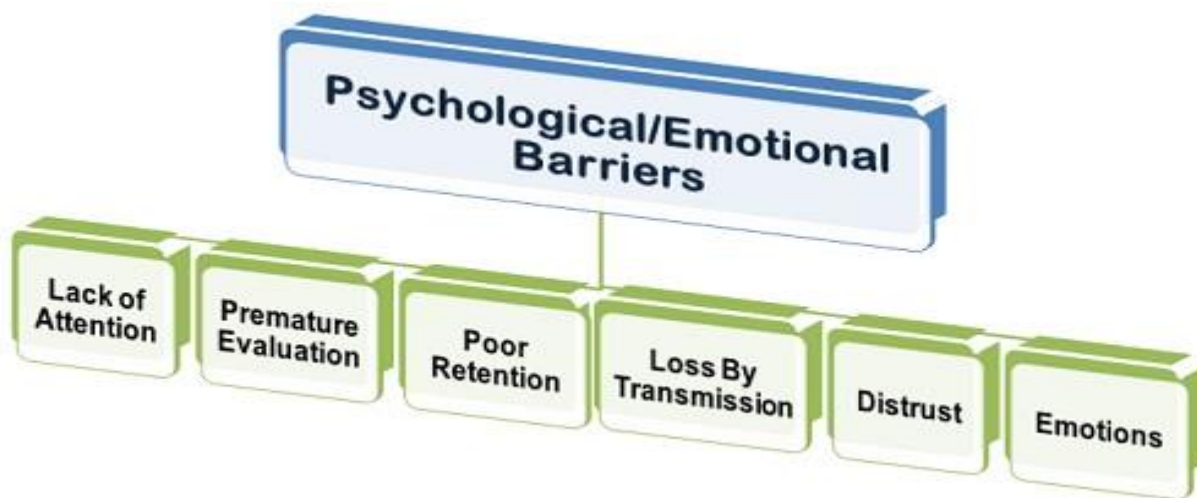
### ❖ Barriers to communication



**1. Semantic Barriers** - These are concerned with the problems and obstructions in the process of encoding and decoding of a message into words or impressions. Normally, such barriers result due to use of wrong words, faulty translations, different interpretations etc.



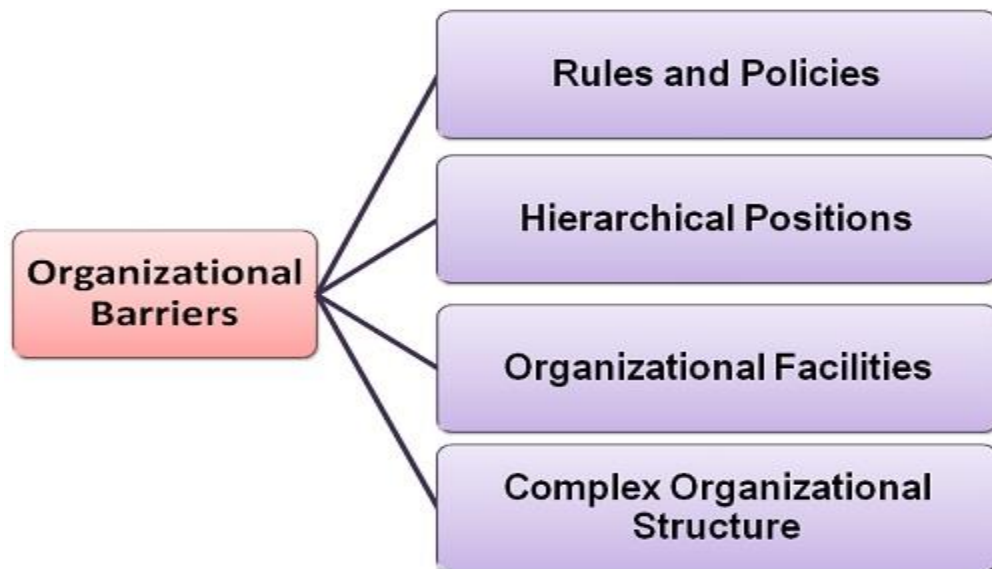
**2. Psychological Barriers** - Emotional or psychological factors also act as barriers to communication. The state of mind of both sender and receiver of communication reflects in the effective communication.



**3. Organizational Barriers** - The factors related to organizational structure, rules and regulations authority relationships, etc. may sometimes act as barriers to effective communication.







**4. Personal Barriers** - The personal factors of both sender and receiver may act as a barrier to effective communication. If a superior thinks that a particular communication may adversely affect his authority, he may suppress such communication.



#### ❖ **Decision making:**

**Decision making is the process** of making choices by identifying a decision, gathering information, and assessing alternative resolutions.

**Using a step-by-step decision-making process** can help you make more deliberate, thoughtful decisions by organizing relevant information and defining alternatives. This approach increases the chances that you will choose the most satisfying alternative possible.



### ❖ Decision making tools and techniques:

➤ **Decision matrix** - A decision matrix is used to evaluate all the options of a decision. When using the matrix,

- Create a table with all of the options in the first column and all of the factors that affect the decision in the first row.
- Users then score each option and weigh which factors are of more importance.
- A final score is then tallied to reveal which option is the best.

**Decision Matrix**

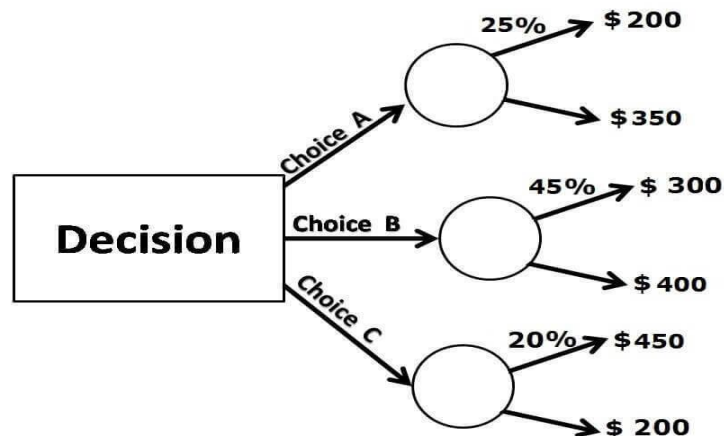
	Criterion A	Criterion B	Criterion C	Criterion D	Total Benefit
Solution 1					
Solution 2					
Solution 3					
	Criteria Weights				

- **T-Chart** - This chart is used when weighing the plusses and minuses of the options. It ensures that all the positives and negatives are taken into consideration when making a decision.

## T CHART

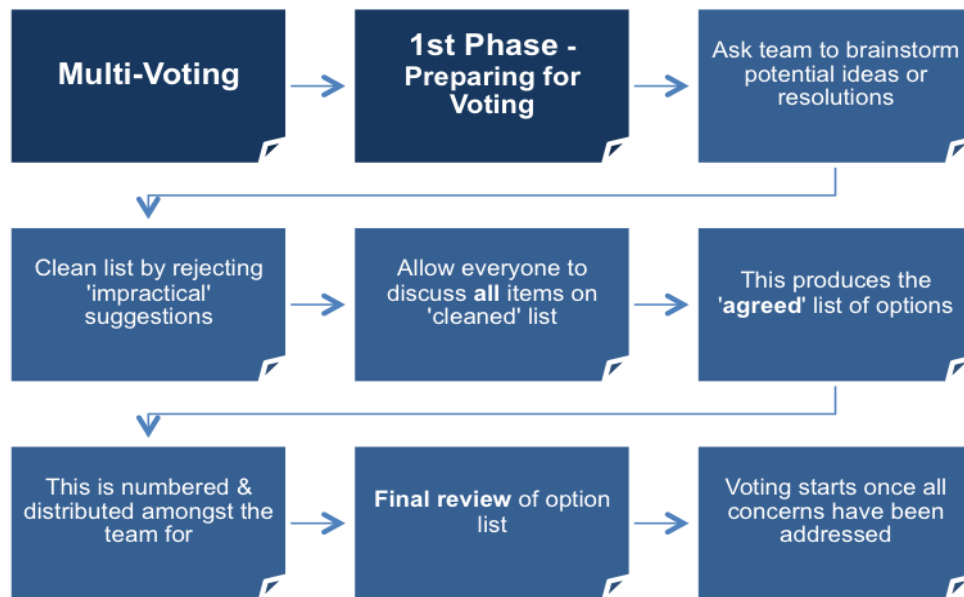
Pros	Cons
-----	-----
-----	-----
-----	-----

- **Decision tree** - This is a graph or model that involves contemplating each option and the outcomes of each. Statistical analysis is also conducted with this technique.

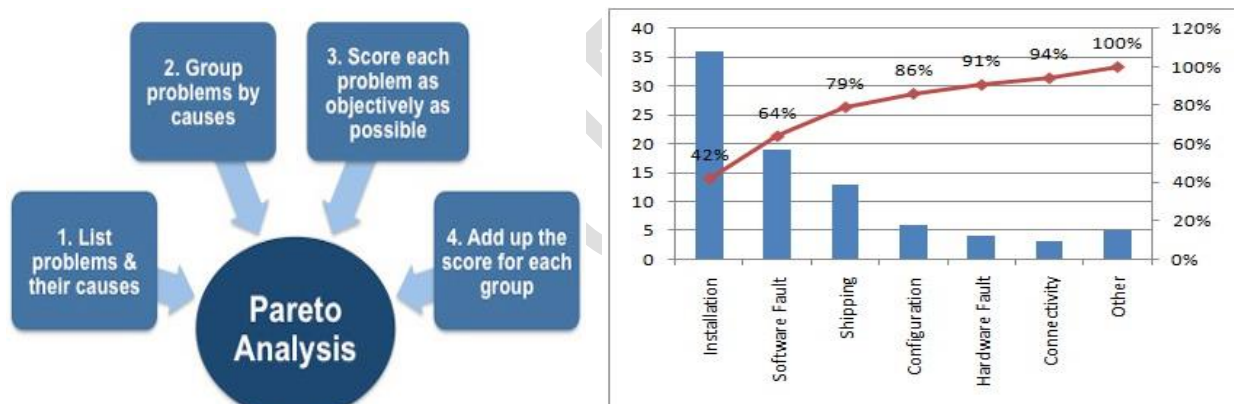


- **Multi voting** - This is used when multiple people are involved in making a decision. It helps whittle down a large list options to a smaller one to the eventual final decision.





- **Pareto analysis** - This is a technique used when a large number of decisions need to be made. This helps in prioritizing which ones should be made first by determining which decisions will have the greatest overall impact.



- **Cost-benefit analysis** - This technique is used when weighing the financial ramifications of each possible alternative as a way to come to a final decision that makes the most sense from an economic perspective.

## Cost-Benefit Analysis Example



	<b>Solution A</b>	<b>Solution B</b>	<b>Solution C</b>
<b>Total Costs</b>	€10,000	€15,000	€20,000
<b>Total Benefits</b>	€12,000	€19,000	€23,000
<b>Cost-Benefit ratio</b>	1.20	1.27	1.15

- **Conjoint analysis** - It is a survey-based statistical technique used in market research that helps determine how people value different attributes (feature, function, benefits) that make up an individual product or service.

### A typical "Choice task"

Which of these TVs would you choose?

Type	Plasma	LCD	LED
Size	36 inch	40 inch	46 inch
Brand	Sony	Toshiba	Philips
Price	\$499	\$699	\$899
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

"Attributes" Three "Product profiles" each of four attributes

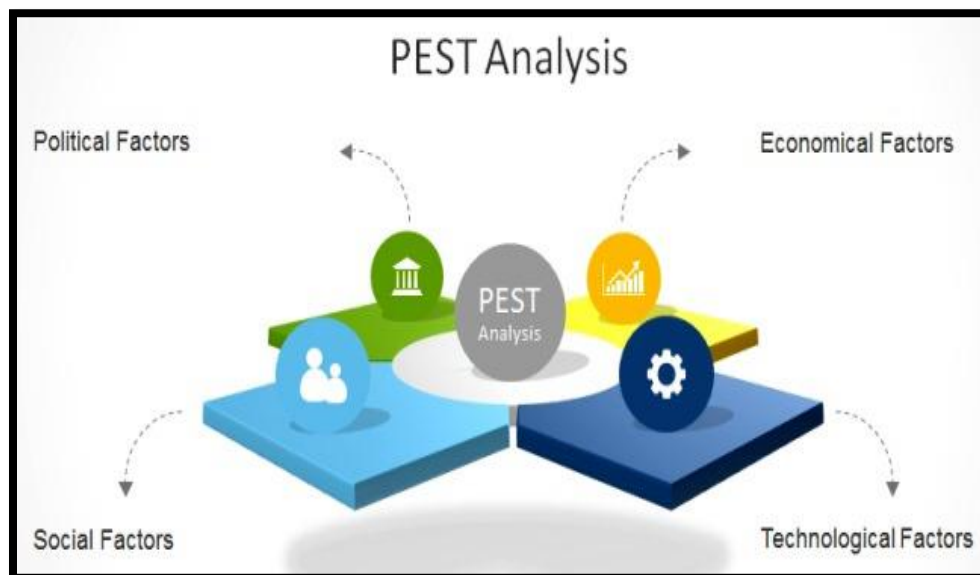
"Levels" for each attribute

- **SWOT Analysis** - SWOT stands for strengths, weaknesses, opportunities and threats, which is exactly what this planning tool assesses.

# SWOT Analysis

		External	
		Opportunities	Threats
Internal	Strengths	How do you leverage your strengths to benefit from opportunities?	How do you use your strengths to minimize the impact of threats?
	Weaknesses	How do you ensure your weaknesses will not stop you from opportunities?	How will you fix weaknesses that can make threats have a real impact?

- **PEST Analysis** - An acronym for political, economic, social and technological, PEST can improve decision-making and timing by analyzing external factors. This method considers present trends to help predict the future ones.



- **Organisational structure** - An organizational structure defines how jobs and tasks are formally divided, grouped and coordinated. The type of organizational structure would depend upon the type of organization itself and its philosophy of operations.

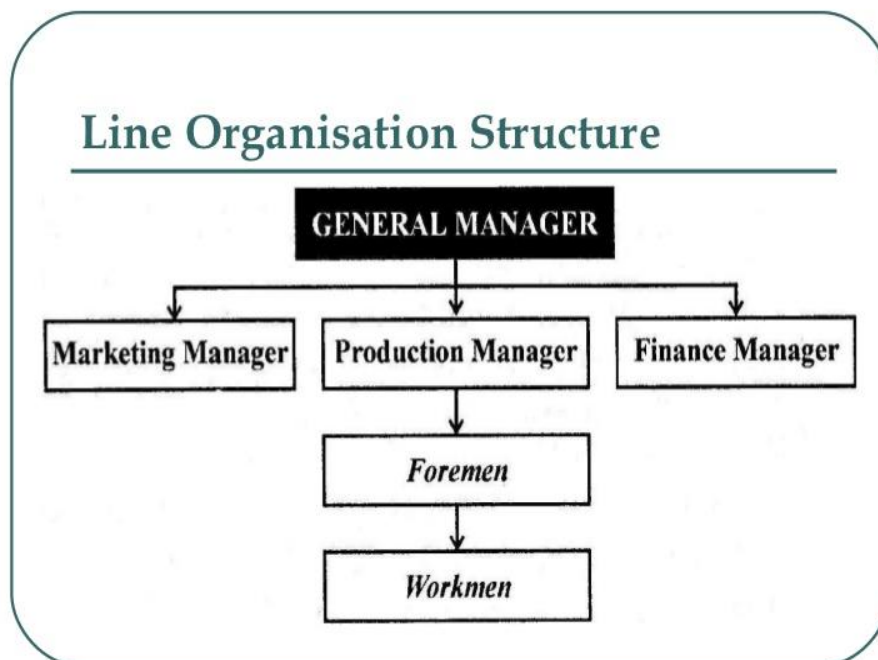


### ❖ Key Elements for Proper Organizational Structure:

- **Work Specialization:** To what degree are articles subdivided into separate jobs?
- **Departmentalization:** On what basis jobs will be grouped?
- **Chain of Command:** To whom will individuals and groups report?
- **Span of Control:** Up to how many individuals can a manager efficiently direct?
- **Centralization Vs Decentralization:** Who will be the sole maker of decisions?
- **Formalization:** To what degree will there be rules and regulations to direct employees and managers?

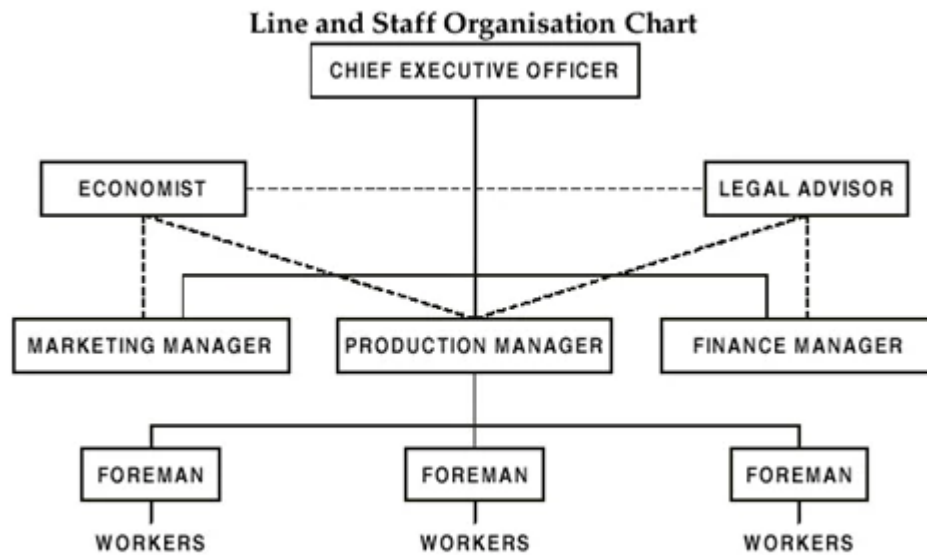
### ❖ Types of organisation

- **Line Organization:** Line organization is the simplest form of organization and is most common among small companies. The authority is embedded in the hierarchical structure and it flows in a direct line from the top of the managerial hierarchy down to different levels of managers and subordinates and further down to the operative levels of workers. It clearly identifies authority, responsibility and accountability at each level.

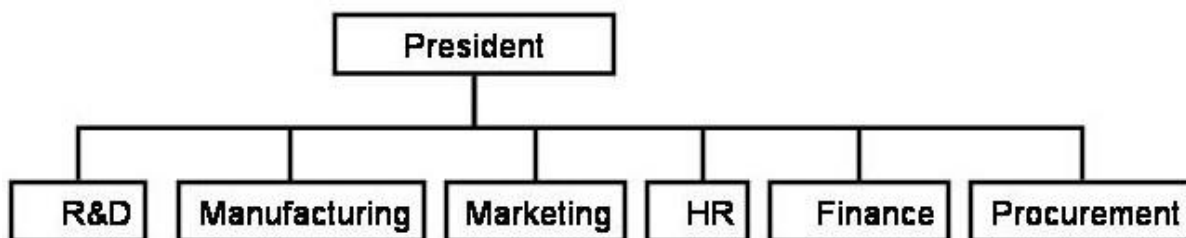




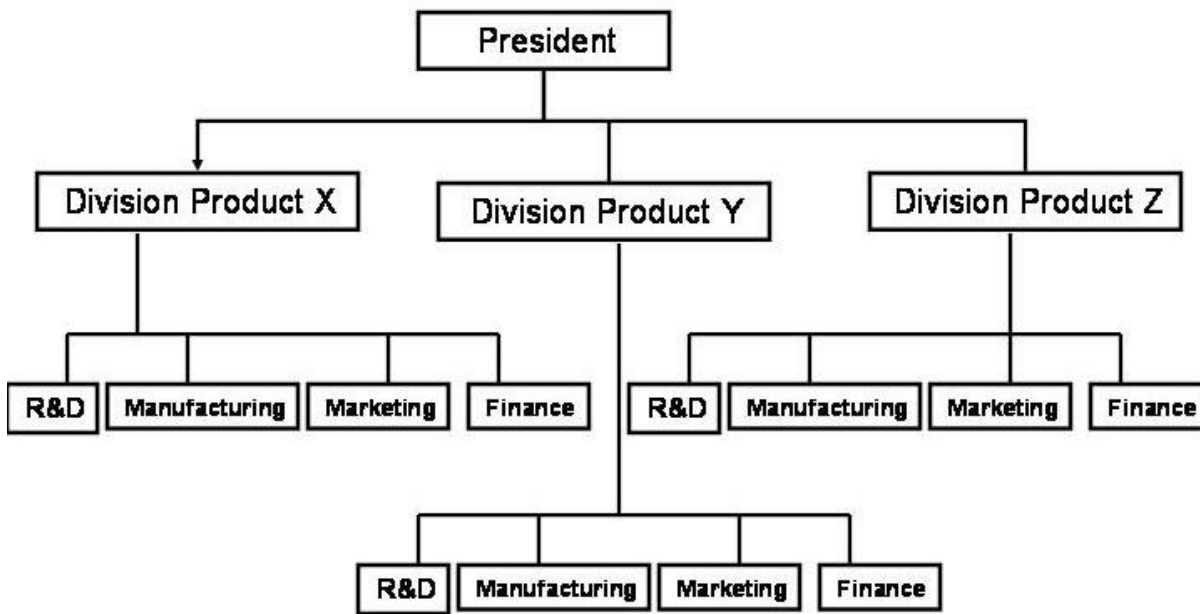
- **Line and Staff Organization:** In this type of organization, the functional specialists are added to the line, thus giving the line the advantages of specialists. This type of organization is most common in our business economy and especially among large enterprises.



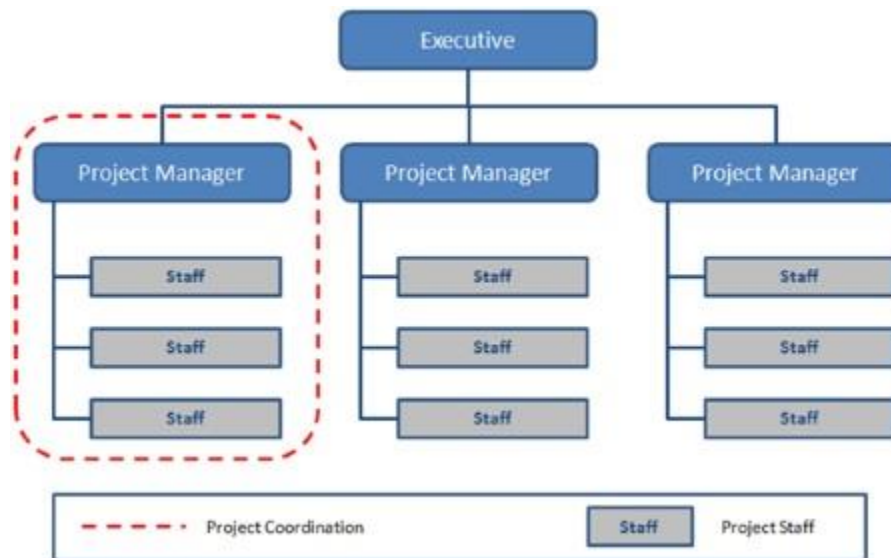
- **Functional Organization:** The functional organizational concept, originated with Fredrick W. Taylor and it permits a specialist in a given area to enforce his directive within the clearly defined scope of his authority.



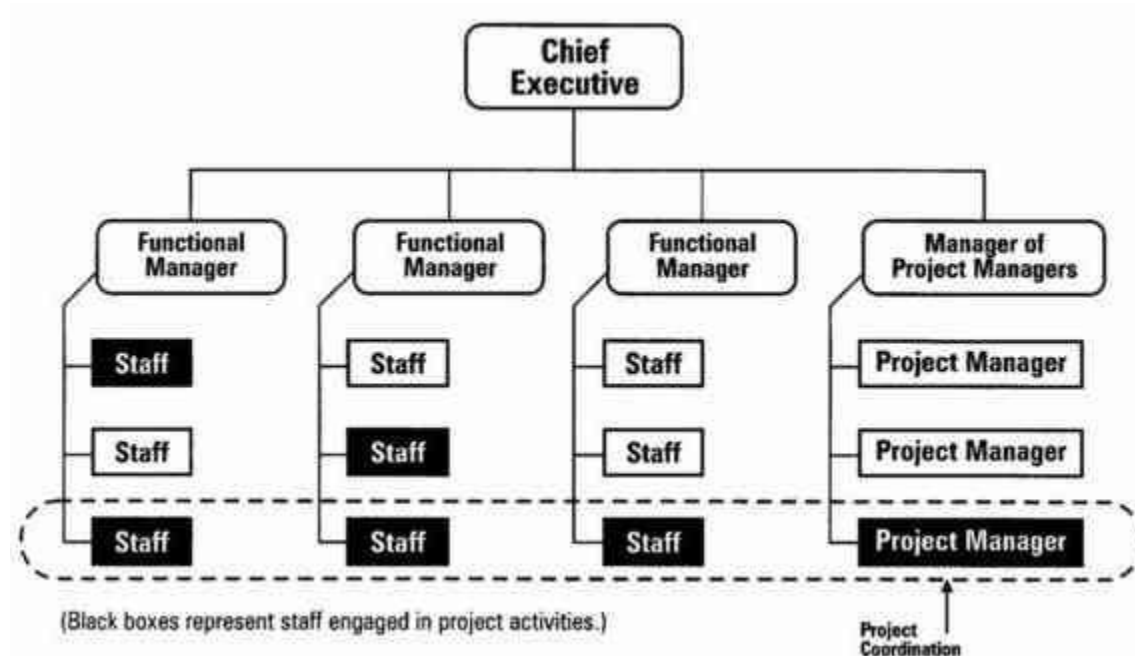
- **Divisional Organization:** The divisional or departmental organization involves grouping of people or activities with similar characteristics into a single department or unit.



- **Project Organization:** These are **temporary organizational structures** formed for specific projects for a specific period of time and once the goal is achieved, these are dismantled.



- **Matrix Organization:** A **matrix structure** is, in a sense, a combination and interaction of project and functional structures and is suggested to overcome the problems associated with project and functional structures individually. The key features of a matrix structure are that the functional and project lines of authority are super-imposed with each other and are shared by both functional and project managers.



- **Centralisation vs decentralisation:** Centralization and Decentralization are **the two types of structures** that can be found in the organization, government, management and even in purchasing. **Centralization of authority** means the power of planning and decision making are exclusively in the hands of top management. It alludes to the concentration of all the powers at the apex level.

**On the other hand, Decentralization refers** to the dissemination of powers by the top management to the middle or low-level management. It is the delegation of authority, at all the levels of management.

### Key Differences between Centralization and Decentralization

BASIS FOR COMPARISON	CENTRALIZATION	DECENTRALIZATION
Meaning	The retention of powers and authority with respect to planning and decisions, with the top management, is known as Centralization.	The dissemination of authority, responsibility and accountability to the various management levels, is known as Decentralization.
Involves	Systematic and consistent reservation of authority.	Systematic dispersal of authority.
Communication Flow	Vertical	Open and Free
Decision Making	Slow	Comparatively faster
Advantage	Proper coordination and Leadership	Sharing of burden and responsibility
Power of decision making	Lies with the top management.	Multiple persons have the power of decision making.
Implemented when	Inadequate control over the organization	Considerable control over the organization
Best suited for	Small sized organization	Large sized organization

- ❖ **Authority and Responsibility:** These are two sides of the same coin. The term 'authority' stands for power or rights assigned to an individual to make decisions, whereas 'responsibility' is a duty to maintain and manage the assigned authority.





## Authority Vs Responsibility

BASIS FOR COMPARISON	AUTHORITY	RESPONSIBILITY
Meaning	Authority refers to the power or right, attached to a particular job or designation, to give orders, enforce rules, make decisions and exact compliance.	Responsibility denotes duty or obligation to undertake or accomplish a task successfully, assigned by the senior or established by one's own commitment or circumstances.
What is it?	Legal right to issue orders.	Corollary of authority.
Results from	Formal position in an organization	Superior-subordinate relationship
Task of manager	Delegation of authority	Assumption of responsibility
Requires	Ability to give orders.	Ability to follow orders.
Flow	Downward	Upward
Objective	To make decisions and implement it.	To execute duties, assigned by superior.
Duration	Continues for long period.	Ends, as soon as the task is accomplished.

### ❖ Span of control:

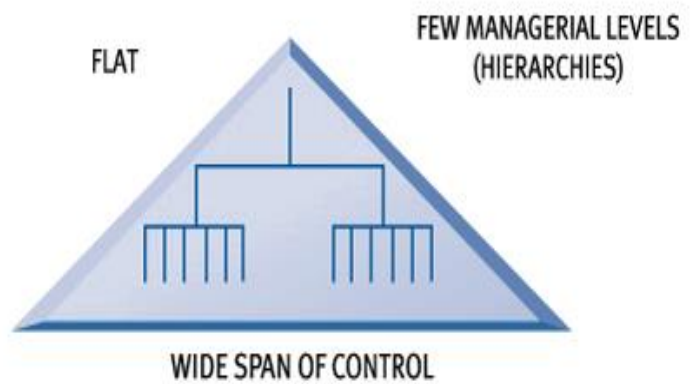
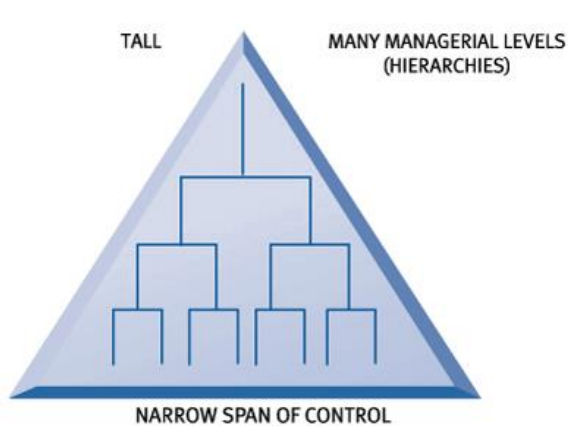
The concept of "span of control," also known as management ratio, refers to the number of subordinates controlled directly by a superior.



The concept of span of control was developed in the **United Kingdom in 1922 by Sir Ian Hamilton**. It arose from the assumption that managers have finite amounts of time, energy, and attention to devote to their jobs. In studies of British military leaders, Hamilton found that they could not effectively control more than three to six people directly. These figures have been generally accepted as the "rule of thumb" for span of control ever since. More than a decade later, A.V. Graicunas illustrated the concept of span of control mathematically.

$$r = n \left( \frac{2^n}{2} + (n-1) \right)$$

Here,  $r$  = number of relationships  
 $n$  = number of subordinates



### ❖ Managerial economics

Managerial economics is a discipline that combines economic theory with managerial practice. It helps in covering the gap between the problems of logic and the problems of policy. The subject offers powerful tools and techniques for managerial policy making.

#### According to Spencer and Siegel man:

“The integration of economic theory with business practice for the purpose of facilitating decision-making and forward planning by management”.

#### According to McGutgan and Moyer:

“Managerial economics is the application of economic theory and methodology to decision-making problems faced by both public and private institutions”.

Spencer and Siegel man have described the importance of managerial economics in a business and industrial enterprise as follows:

- Accommodating traditional theoretical concepts to the actual business behaviour and conditions:
- Estimating economic relationships:
- Predicting relevant economic quantities:



- Understanding significant external forces:

**(a) External factors:** A firm cannot exercise any control over these factors. The plans, policies and programs of the firm should be formulated in the light of these factors.

**(b) Internal factors:** These factors fall under the control of a firm. These factors are associated with business operation. Knowledge of these factors aids the management in making sound business decisions.

- Basis of business policies.

### ❖ **Characteristics of Managerial Economics:**

(i) It studies the problems and principles of an individual business firm or an individual industry. It aids the management in forecasting and evaluating the trends of the market.

(ii) It is concerned with varied corrective measures that a management undertakes under various circumstances. It deals with goal determination, goal development and achievement of these goals.

(iii) Managerial economics is pragmatic. In pure microeconomic theory, analysis is performed, based on certain exceptions, which are far from reality.

(iv) Managerial economics employs economic concepts and principles, which are known as the theory of Firm or 'Economics of the Firm'. Thus, its scope is narrower than that of pure economic theory.

(v) Managerial economics incorporates certain aspects of macroeconomic theory. These are essential to comprehending the circumstances and environments that envelop the working conditions of an individual firm or an industry.

(vi) Managerial economics aims at supporting the management in taking corrective decisions and charting plans and policies for future.

(vii) Science is a system of rules and principles engendered for attaining given ends. Scientific methods have been credited as the optimal path to achieving one's goals. Managerial economics

has been is also called a scientific art because it helps the management in the best and efficient utilization of scarce economic resources.

(viii) Managerial economics is a normative and applied discipline.

#### ❖ Demand analysis:

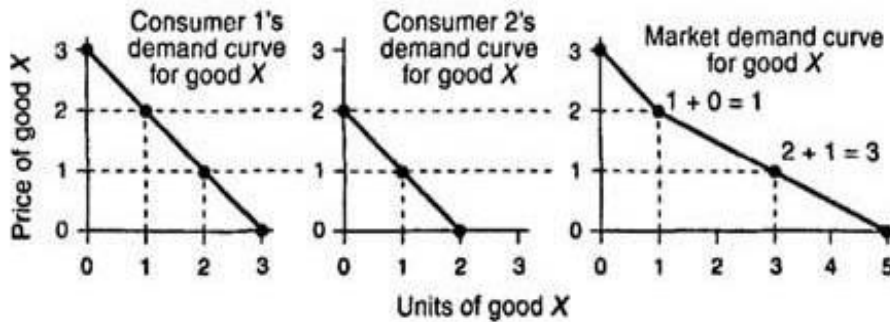
- Demand analysis is a research done to estimate or find out the customer demand for a product or service in a particular market.
- Demand analysis is one of the important consideration for a variety of business decisions like determining sales forecasting, pricing products/services, marketing and advertisement spending, manufacturing decisions, expansion planning etc.
- Demand analysis covers both future and retrospective analysis so that they can analyse the demand better and understand the product/service's past success and failure too.

#### ❖ Individual Demand:

The individual demand is the demand of one individual or firm. It represents the quantity of a good that a single consumer would buy at a specific price point at a specific point in time. While the term is somewhat vague, individual demand can be represented by the point of view of one person, a single family, or a single household.

#### ❖ Market demand:

Market demand provides the total quantity demanded by all consumers. In other words, it represents the aggregate of all individual demands. There are two basic types of market demand: primary and selective. Primary demand is the total demand for all of the brands that represent a given product or service, such as all phones or all high-end watches. Selective demand is the demand for one particular brand of product or service, such as the iPhone or a Michele watch.



## ❖ TYPES OF DEMAND

### 1. Price demand:

- Price demand refers to the different quantities of the commodity or service which consumers will purchase at a given time and at given prices, assuming other things remaining the same.
- As the price of commodity increases its demand falls and as the price decreases, its demand rises.

### 2. Income demand:

- Income demand refers to the different quantities of a commodity or service which consumers will buy at different levels of income, assuming other things remaining constant.
- Usually the demand for a commodity increases as the income of a person increases unless the commodity happens to be an inferior product.

**3. Cross demand** - When the demand for a commodity depends not on its price but on the price of other related commodities, it is called cross demand. Here we take closely connected or related goods which are substitutes for one another.

For example, tea and coffee are substitutes for one another. If the price of coffee rises, the consumer will be induced to buy more of tea and, hence, the demand of tea will increase.

### 4. Direct demand:

Commodities or services which satisfy our wants directly are said to have direct demand. For example, all consumer goods satisfy our wants directly, so they are said to have direct demand.

### 5. Joint demand:

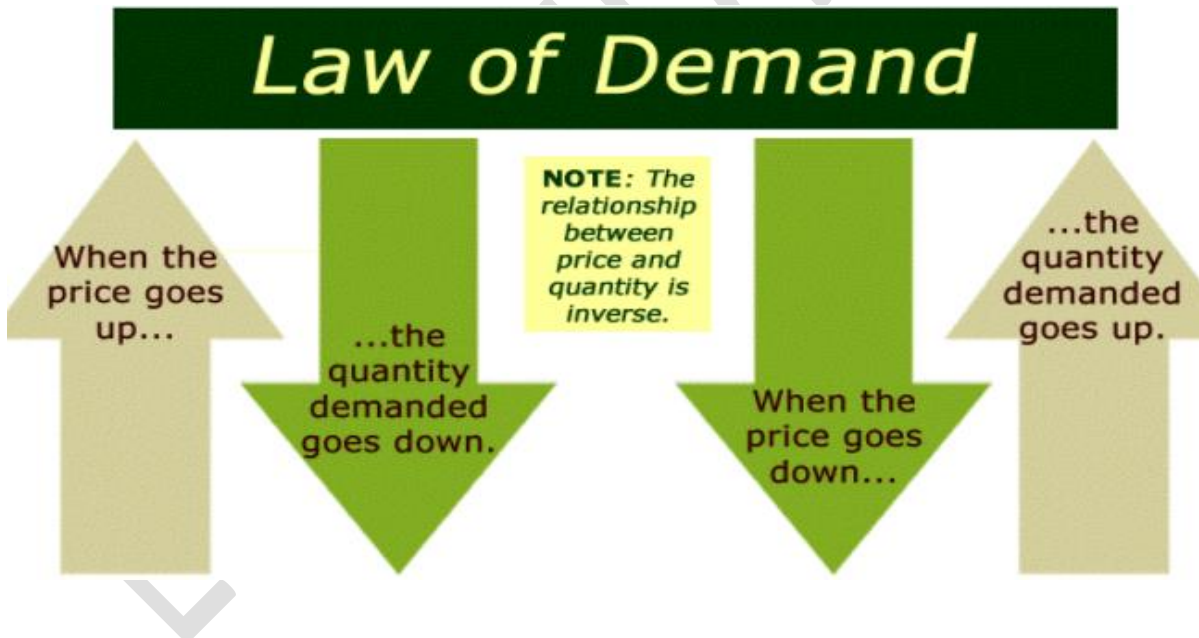
In finished products as in case of bread, there is need for so many things—the services of the flour mill, oven, fuel, etc. The demand for them is called joint demand.

### 6. Composite demand:

- A commodity is said to have a composite demand when its use is made in more than one purpose.
- For example the demand for coal is composite demand as coal has many uses—as fuel for a boiler of a factory, for domestic fuel, for oven for steam-making in railways engine, etc.

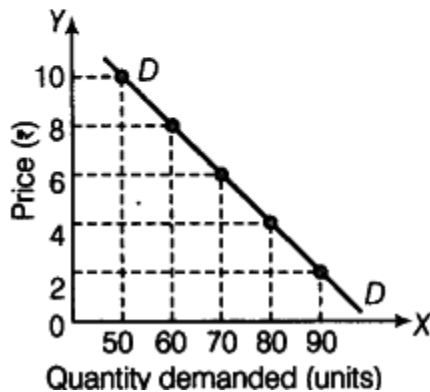
### ❖ Law of demand:

In **microeconomics**, the law of demand states that, "conditional on all else being equal, as the price of a good increases, quantity demanded decreases; conversely, as the price of a good decreases, quantity demanded increases"



### Demand schedule

Price per unit (₹)	Quantity demanded (units)
10	50
8	60
6	70
4	80
2	90



#### ❖ Assumptions of Law of Demand:

- (i) There is no change in the tastes and preferences of the consumer;
- (ii) The income of the consumer remains constant;
- (iii) There is no change in customs;
- (iv) The commodity to be used should not confer distinction on the consumer;
- (v) There should not be any substitutes of the commodity;
- (vi) There should not be any change in the prices of other products;
- (vii) There should not be any possibility of change in the price of the product being used;
- (viii) There should not be any change in the quality of the product; and
- (ix) The habits of the consumers should remain unchanged. Given these conditions, the law of demand operates. If there is change even in one of these conditions, it will stop operating.

**There are at least three accepted explanations of why demand curves slope downwards:**

1. The law of diminishing marginal utility
2. The income effect
3. The substitution effect

### ❖ Diminishing marginal utility:

One of the earliest explanations of the inverse relationship between price and quantity demanded is the law of diminishing marginal utility. This law suggests that as more of a product is consumed the marginal (additional) benefit to the consumer falls, hence consumers are prepared to pay less. This can be explained as follows:

Most benefit is generated by the first unit of a good consumed because it satisfies all or a large part of the immediate need or desire.

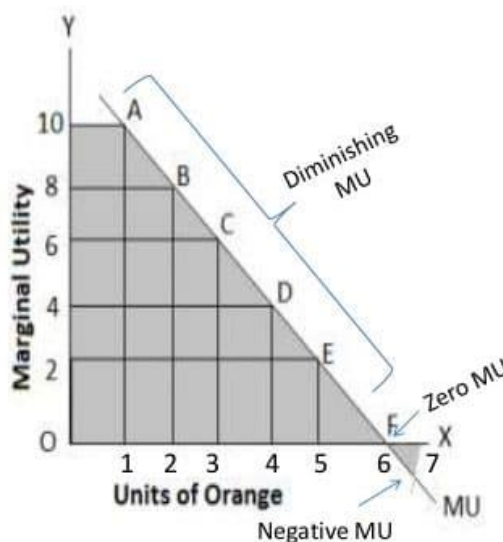
A second unit consumed would generate less utility - perhaps even zero, given that the consumer now has less need or less desire.

With less benefit derived, the rational consumer is prepared to pay rather less for the second, and subsequent, units, because the marginal utility falls.

## Law of Diminishing Marginal Utility

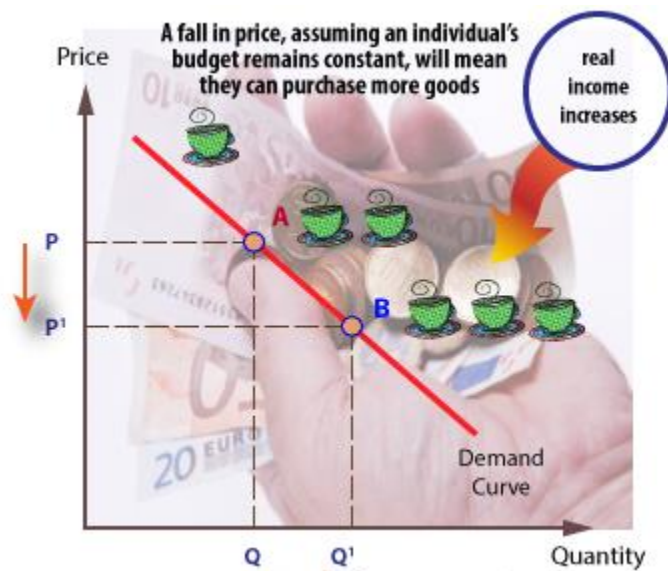
Units	Total Utility	Marginal Utility
1	10	10
2	18	8
3	24	6
4	28	4
5	30	2
6	30	0
7	28	-2

MU curve is downward sloping because of the fact that consumption of successive units gives less satisfaction.



### ❖ The income effect:

The **income and substitution effect** can also be used to explain why the demand curve slopes downwards. If we assume that money income is fixed, the income effect suggests that, as the price of a good falls, *real income* - that is, what consumers can buy with their *money income* - rises and consumers increase their demand.

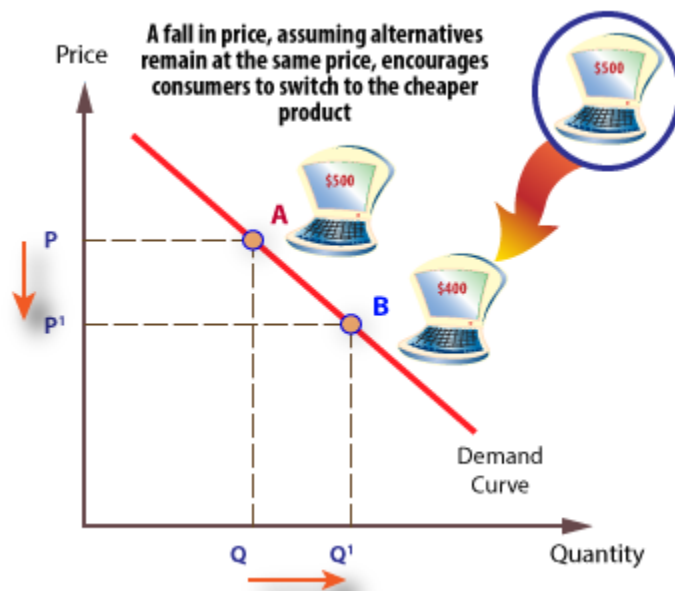


Therefore, at a lower price, consumers can buy more from the same money income, and, *ceteris paribus*, demand will rise. Conversely, a rise in price will reduce real income and force consumers to cut back on their demand.

### ❖ The substitution effect:

In addition, as the price of one good falls, it becomes *relatively less expensive*. Therefore, assuming other alternative products stay at the same price, at lower prices the good appears cheaper, and consumers will switch from the expensive alternative to the relatively cheaper one.





It is important to remember that whenever the price of any resource changes it will trigger both an income and a substitution effect.

#### ❖ **Exceptions to the Law of Demand:**

In certain cases, the demand curve slopes up from left to right, i.e., it has a positive slope. Under certain circumstances, consumers buy more when the price of a commodity rises and less when price falls.

**Following causes are attributed to an upward sloping demand curve:**

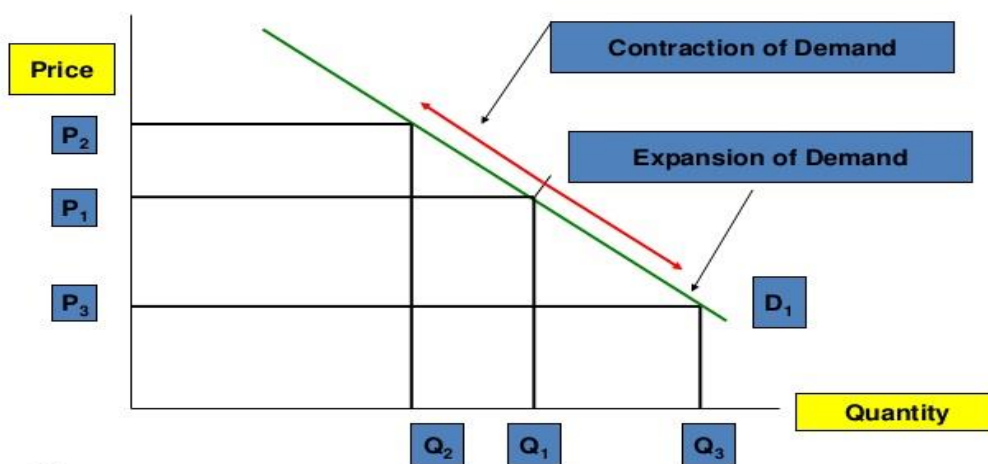
- ❖ **Depression:** During a depression, the prices of commodities are very low and the demand for them is also less. This is because of the lack of purchasing power with consumers.
- ❖ **Giffen Paradox:** If a commodity happens to be a necessity of life like wheat and its price goes up, consumers are forced to curtail the consumption of more expensive foods like meat and fish, and wheat being still the cheapest food they will consume more of it. The Marshallian example is applicable to developed economies.
- ❖ **Demonstration Effect:** If consumers are affected by the principle of conspicuous consumption or demonstration effect, they will like to buy more of those commodities which confer distinction on the possessor, when their prices rise.
- ❖ **Ignorance Effect:** Consumers buy more at a higher price under the influence of the “ignorance effect”, where a commodity may be mistaken for some other commodity, due to deceptive packing, label, etc.

- ❖ **Speculation:** Marshall mentions speculation as one of the important exceptions to the downward sloping demand curve. According to him, the law of demand does not apply to the demand in a campaign between groups of speculators.
- ❖ **Necessities of Life:** Normally, the law of demand does not apply on necessities of life such as food, cloth etc. Even the price of these goods increases, the consumer does not reduce their demand.
- ❖ **Movement in demand curve and shift in demand curve**

*Movement in the demand curve is when **the commodity experience change in both the quantity demanded and price**, causing the curve to move in a specific direction.*

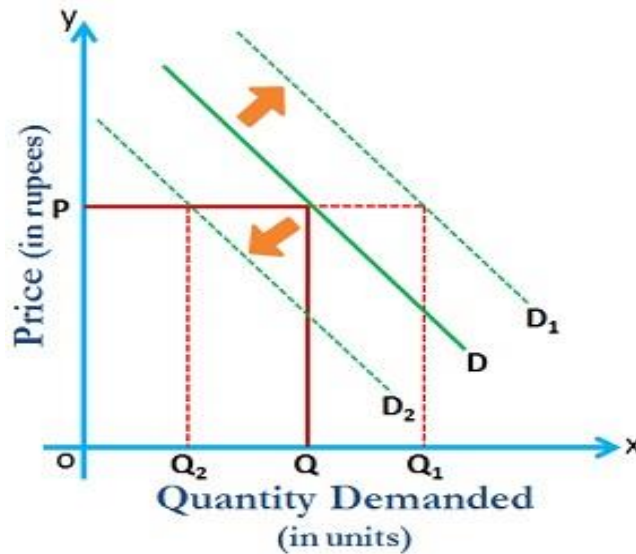
- **Contraction/ Upward Movement:** Indicates contraction of demand, in essence, a fall in demand is observed due to price rise.
- **Extension/Downward Movement:** It shows expansion in demand, i.e. demand for the product or service goes up because of the fall in prices.

## Movements Along the Demand Curve

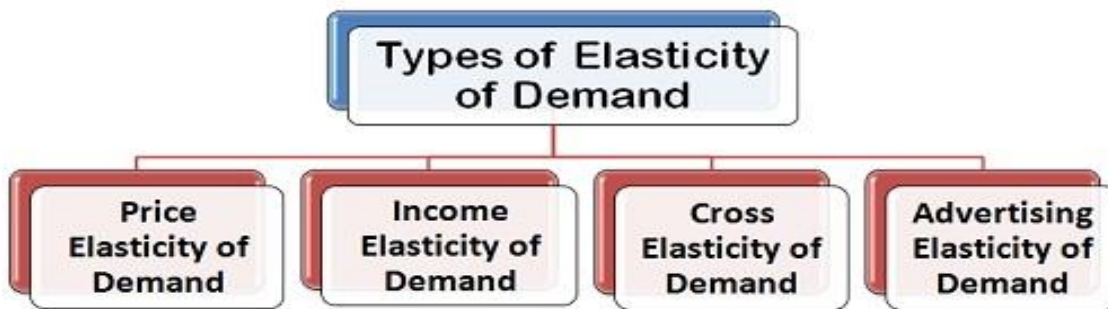


The shift in the demand curve is when, the price of the commodity remains constant, but there is a change in quantity demanded due to some other factors, causing the curve to shift to a particular side.

- **Rightward Shift:** It represents an increase in demand, due to the favourable change in non-price variables, at the same price.
- **Leftward Shift:** This is an indicator of a decrease in demand when the price remains constant but owing to unfavourable changes in determinants other than price.



### ❖ Types of elasticity of demand



**Price Elasticity of Demand** is the responsiveness of quantity demanded to changes in price. In other words it is the percentage change in quantity demanded in comparison to the percentage change in price of a product.

$$Ed = \text{Percentage quantity demanded} / \text{Percentage change in price} = \% \Delta Q_d / \% \Delta P.$$



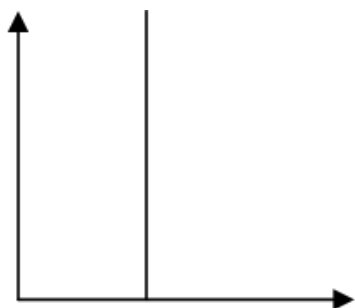
**1. Perfectly Elastic Demand:** When a small change in price of a product causes a major change in its demand, it is said to be perfectly elastic demand. In perfectly elastic demand, a small rise in price results in fall in demand to zero, while a small fall in price causes increase in demand to infinity. In such a case, the demand is perfectly elastic or  $e_p = \infty$ .

**2. Perfectly Inelastic Demand:** A perfectly inelastic demand is one when there is no change produced in the demand of a product with change in its price. The numerical value for perfectly inelastic demand is zero ( $e_p=0$ ).

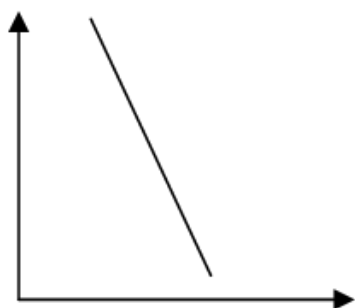
**3. Relatively Elastic Demand:** Relatively elastic demand refers to the demand when the proportionate change produced in demand is greater than the proportionate change in price of a product. The numerical value of relatively elastic demand ranges between one to infinity.

**4. Relatively Inelastic Demand:** Relatively inelastic demand is one when the percentage change produced in demand is less than the percentage change in the price of a product. For example, if the price of a product increases by 30% and the demand for the product decreases only by 10%, then the demand would be called relatively inelastic. The numerical value of relatively elastic demand ranges between zero to one ( $e_p < 1$ ). Marshall has termed relatively inelastic demand as elasticity being less than unity.

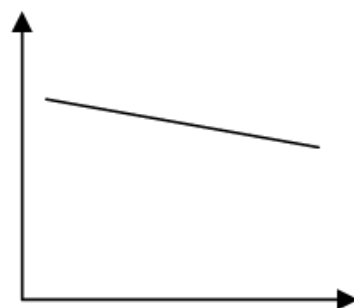
**5. Unitary Elastic Demand:** When the proportionate change in demand produces the same change in the price of the product, the demand is referred as unitary elastic demand. The numerical value for unitary elastic demand is equal to one ( $e_p=1$ ).



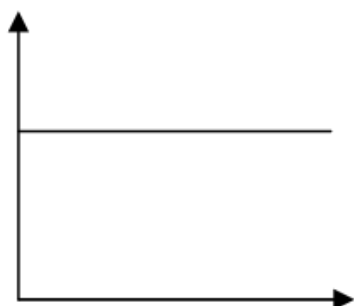
Value = 0  
Perfectly inelastic demand



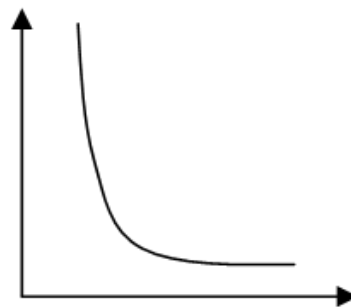
Value = 0 & 1  
Inelastic demand



Value = 1 & infinity  
Elastic demand



Value = Infinity  
Perfectly elastic demand



Value = Unitary  
Unitary elastic

### ❖ Cross Elasticity of Demand

It measures the responsiveness in the quantity demanded of one good to a change in price of another good.

It is calculated by dividing the percentage change in the quantity demanded of one good by the percentage change in the price of another good.

$$\begin{aligned}
 EC &= \frac{\text{Percentage change in quantity demanded of Good - X}}{\text{Percentage change in the price of Good - Y}} \\
 &= \frac{\frac{\text{Change in quantity demanded of X}}{\text{Original Quantity of X}}}{\frac{\text{Change in Price of Y}}{\text{Original Price of Y}}} \times 100 \\
 &= \frac{\frac{\Delta Q_x}{Q_x}}{\frac{\Delta P_y}{P_y}} \times 100 \\
 &= \frac{\Delta Q_x}{Q_x} \times \frac{P_y}{\Delta P_y} \times 100 \\
 EC &= \frac{P_y}{\Delta P_y} \times \frac{\Delta Q_x}{Q_x}
 \end{aligned}$$

Where

$P_y$  = Original price of good-Y

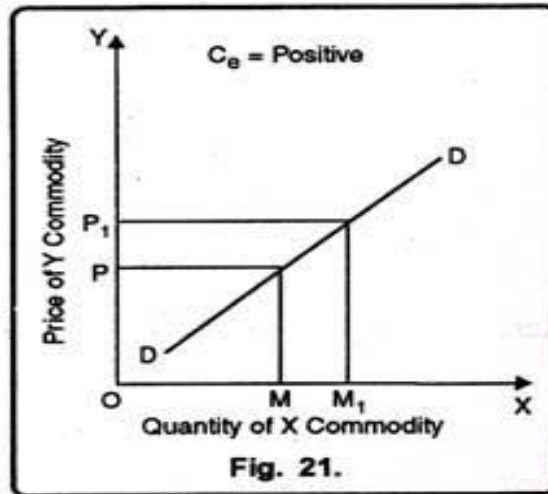
$\Delta P_y$  = Change in price of good-Y

$Q_x$  = Original quantity demanded of X

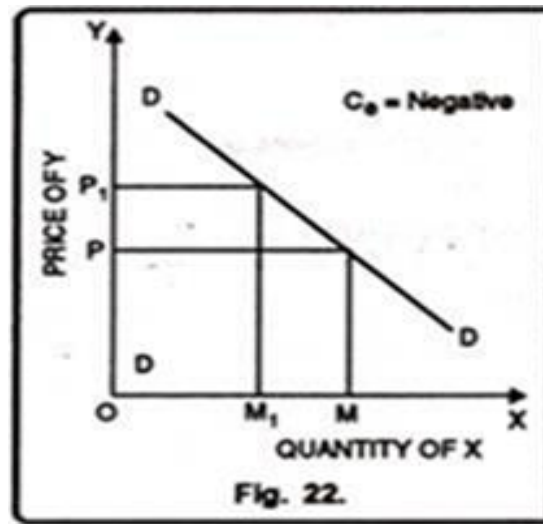
$\Delta Q_x$  = Change in the quantity demanded of X

### ❖ Types of Cross Elasticity of Demand:

**1. Positive:** When goods are substitute of each other then cross elasticity of demand is positive. In other words, when an increase in the price of Y leads to an increase in the demand of X. For instance, with the increase in price of tea, demand of coffee will increase.

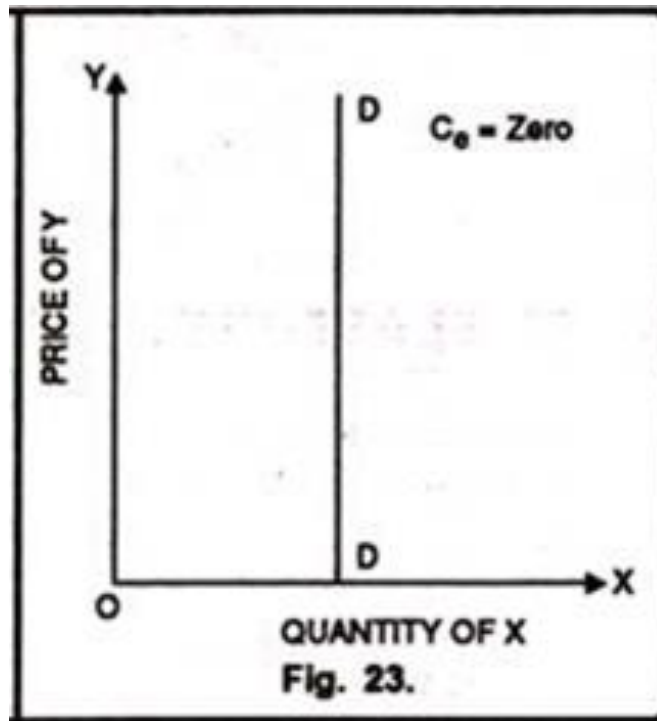


**2. Negative:** In case of complementary goods, cross elasticity of demand is negative. A proportionate increase in price of one commodity leads to a proportionate fall in the demand of another commodity because both are demanded jointly.



**3. Zero:** Cross elasticity of demand is zero when two goods are not related to each other. For instance, increase in price of car does not affect the demand of cloth. Thus, cross elasticity of demand is zero. It has been shown in fig. 23.

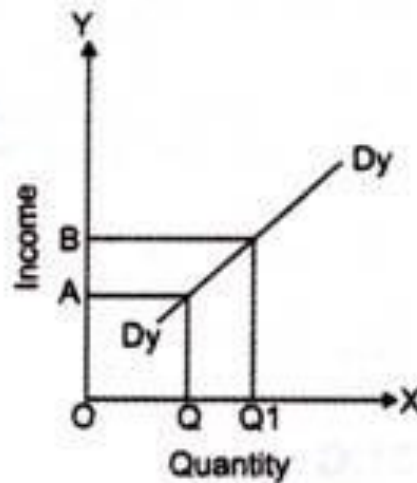




❖ **Income Elasticity of Demand** measures responsiveness of quantity demanded to a change in income. It is calculated by dividing the percentage change in quantity demanded by the percentage change in income.

On the basis of numerical value, income elasticity of demand is classified into three groups, which are as follows:

**1. Positive Income Elasticity of Demand:** Refers to a situation when the demand for a product increases with increase in consumer's income and decreases with decrease in consumer's income. The income elasticity of demand is positive for normal goods.



**Figure-12: Positive Elasticity of Demand**

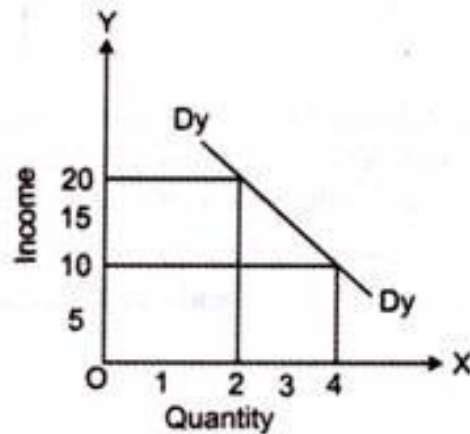
The positive income elasticity of demand can be of three types, which are discussed as follows:

**a. Unitary Income Elasticity of Demand:** Implies that positive income elasticity of demand would be unitary when the proportionate change in the quantity demanded is equal to proportionate change in income

**b. More than Unitary Income Elasticity of Demand:** Implies that positive income elasticity of demand would be more than unitary when the proportionate change in the quantity demanded is more than proportionate change in income.

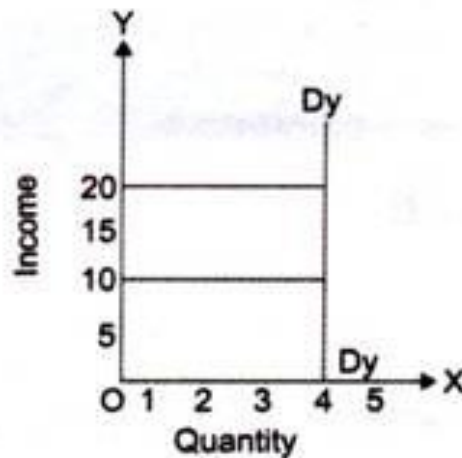
**c. Less than Unitary Income Elasticity of Demand:** Implies that positive income elasticity of demand would be less than unitary when the proportionate change in, the quantity demanded is less than proportionate change in income.

**2. Negative Income Elasticity of Demand:** Refers to a kind of income elasticity of demand in which the demand for a product decreases with increase in consumer's income. The income elasticity of demand is negative for inferior goods, also known as Giffen goods



**Figure-13: Negative Income Elasticity of Demand**

**3. Zero Income Elasticity of Demand:** Refers to the income elasticity of demand whose numerical value is zero. This is because there is no effect of increase in consumer's income on the demand of product. The income elasticity of demand is zero ( $e_y = 0$ ) in case of essential goods.



**Figure-14: Zero Income Elasticity of Demand**

### ❖ Different Methods for Measurement of elasticity:

- 1. The Percentage Method:** The price elasticity of demand is measured by its coefficient ( $E_p$ ). This coefficient ( $E_p$ ) measures the percentage change in the quantity of a commodity demanded resulting from a given percentage change in its price.

$$E_d = \frac{\% \text{ Change in Quantity Demanded}}{\% \text{ Change in Price}}$$

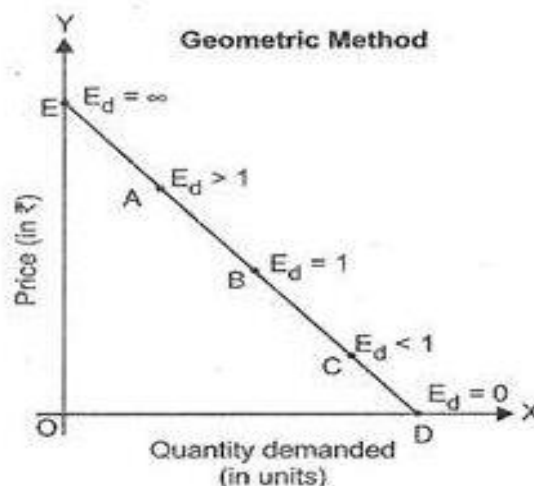
$$E_d = \frac{\% \Delta Q}{\% \Delta P}$$

$$E_d = \frac{(Q_1 - Q)/Q}{(P_1 - P)/P}$$

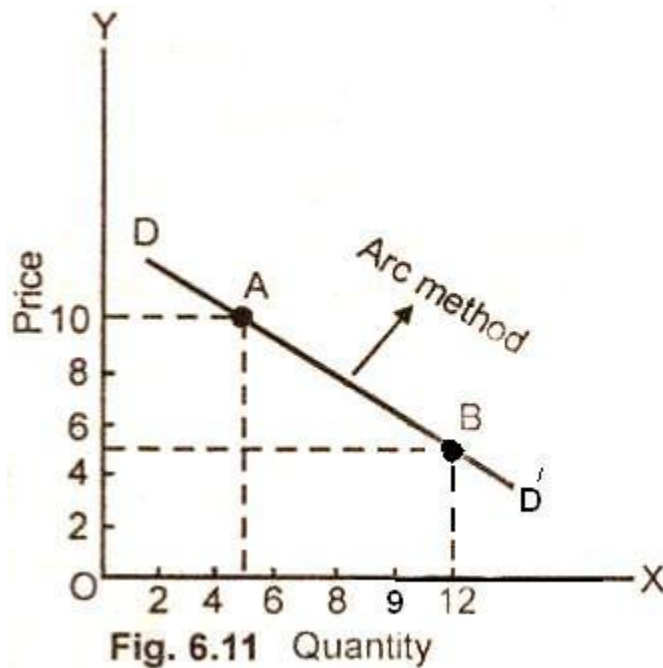
**2. The Point Method:** Prof. Marshall devised a geometrical method for measuring elasticity at a point on the demand curve. Let RS be a straight line demand curve in Figure. 2. If the price falls from PB (= OA) to MD (= OC), the quantity demanded increases from OB to OD.

$$EP = \Delta q / \Delta p \times p / q$$

- Where  $\Delta q$  represents change in quantity demanded,
- $\Delta p$  changes in price level while  $p$  and  $q$  are initial price and quantity levels.

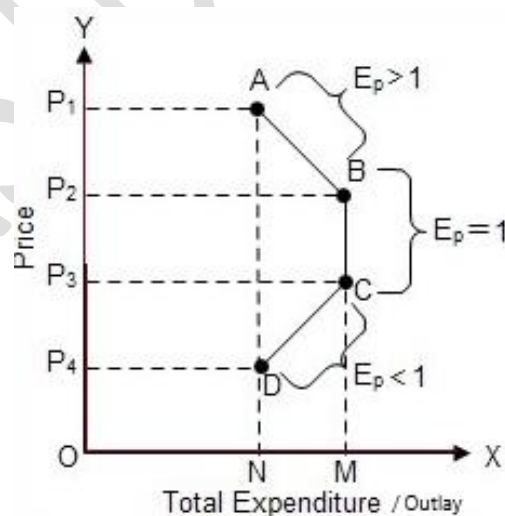


**3. The Arc Method:** When elasticity is measured between two points on the same demand curve, it is known as arc elasticity. In the words of Prof. Baumol, “Arc elasticity is a measure of the average responsiveness to price change exhibited by a demand curve over some finite stretch of the curve.”



- 4. The Total Outlay or revenue Method:** Marshall evolved the total outlay, or total revenue or total expenditure method as a measure of elasticity. By comparing the total expenditure of a purchaser both before and after the change in price, it can be known whether his demand for a good is elastic, unity or less elastic.

**Total outlay is price multiplied by the quantity of a good purchased: Total Outlay = Price x Quantity Demanded.**



### ❖ Elasticity and forecasting

The extent of responsiveness of demand with change in the price is not always the same. The demand for a product can be elastic or inelastic, depending on the rate of change in the demand with respect to change in price of a product.

- **Elastic demand** is the one when the response of demand is greater with a small proportionate change in the price. On the other hand,
- **Inelastic demand** is the one when there is relatively a less change in the demand with a greater change in the price.

### ➤ **Methods of Demand Forecasting**

There is no easy or simple formula to forecast the demand. Proper judgment along with the scientific formula is needed to correctly predict the future demand for a product or service.

**1] Survey of Buyer's Choice:** When the demand needs to be forecasted in the short run, say a year, then the most feasible method is to ask the customers directly that what are they intending to buy in the forthcoming time period. Thus, under this method, the potential customers are directly interviewed.

- **Complete Enumeration Method:** Under this method, nearly all the potential buyers are asked about their future purchase plans.
- **Sample Survey Method:** Under this method, a sample of potential buyers is chosen scientifically and only those chosen are interviewed
- **End-use Method:** It is especially used for forecasting the demand of the inputs. Under this method, the final users i.e. the consuming industries and other sectors are identified.

**2] Collective Opinion Method:** Under this method, the salesperson of a firm predicts the estimated future sales in their region. The individual estimates are aggregated to calculate the total estimated future sales.

**3] Barometric Method:** This method is based on the past demands of the product and tries to project the past into the future. The economic indicators are used to predict the future trends of the business. There are three types of economic indicators, viz. leading indicators, lagging indicators, and coincidental indicators.

**4] Market Experiment Method;** Another one of the methods of demand forecasting is the market experiment method. Under this method, the demand is forecast by conducting market studies and experiments on consumer behavior under actual but controlled, market conditions.

**5] Expert Opinion Method:** Usually, the market experts have explicit knowledge about the factors affecting the demand. Their opinion can help in demand forecasting. The Delphi technique, developed by Olaf Helmer is one such method. Under this method, experts are given a series of carefully designed questionnaires and are asked to forecast the demand.

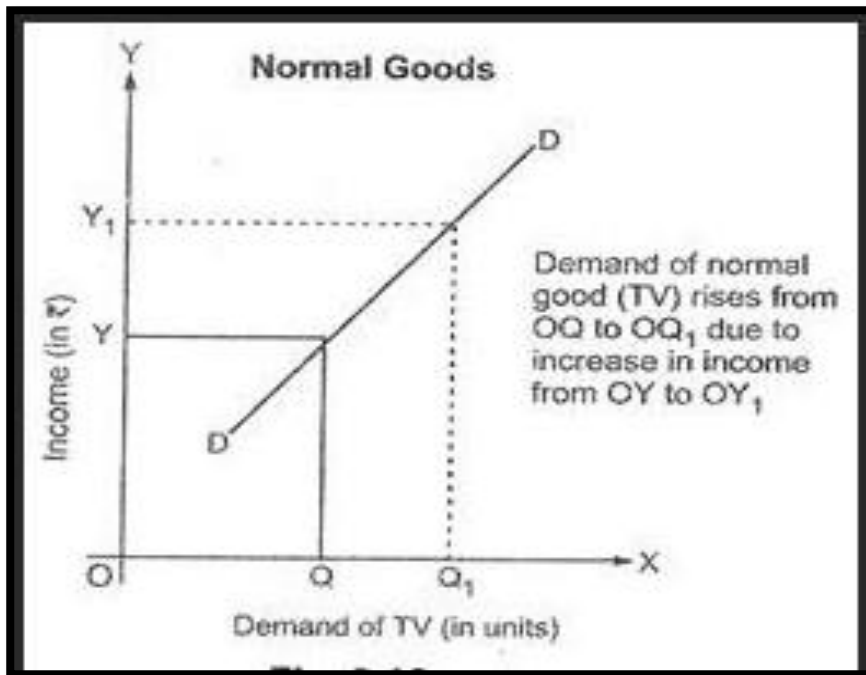
**6] Statistical Methods:** The statistical method is one of the important methods of demand forecasting. Statistical methods are scientific, reliable and free from biases. The major statistical methods used for demand forecasting are:

- **Trend Projection Method:** This method is useful where the organization has sufficient amount of accumulated past data of the sales. This data is arranged chronologically to obtain a time series. Thus, the time series depicts the past trend and on the basis of it, the future market trend can be predicted.
- **Regression Analysis:** This method establishes a relationship between the dependent variable and the independent variables. The regression equation is derived assuming the relationship to be linear. Regression Equation:  $Y = a + bX$ . Where Y is the forecasted demand for a product or service.

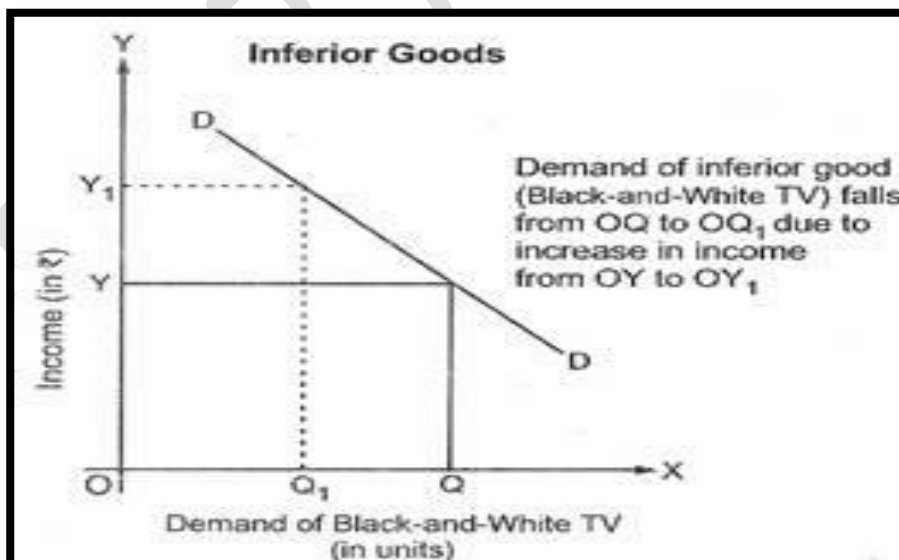
❖ **Miscellaneous terms:**



- **Normal goods:** Normal goods are any goods for which demand increases when income increases, and falls when income decreases but price remains constant, i.e. with a positive income elasticity of demand. In other words, other things equal, an increase in income leads to an increase in demand

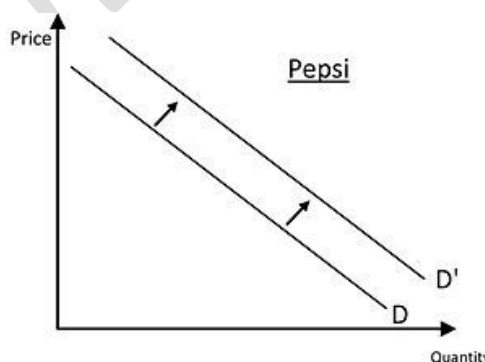
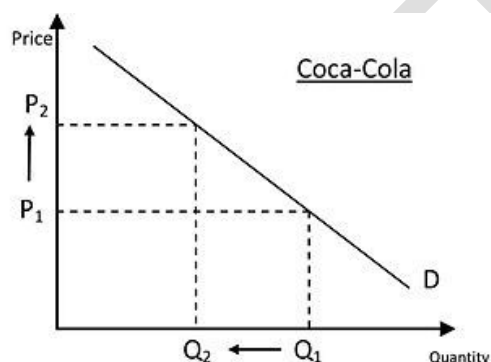


- **Inferior goods:** An inferior good is a good whose quantity demanded decreases when consumer income rises (or quantity demanded rises when consumer income decreases). In other words, other things equal, an increase in income leads to a decrease in demand.



Normal Good			
↑	An increase in income...	↑	increases demand.
↓	A decrease in income...	↓	decreases demand.
Inferior Good			
↑	An increase in income...	↓	decreases demand.
↓	A decrease in income...	↑	increases demand.

- **Substitute goods:** Two goods for which an increase in the price of one good leads to an increase in the demand for the other good. e.g. X and Y are substitutes if the demand for X increases when the price of Y increases, or if there is a positive cross elasticity of demand.



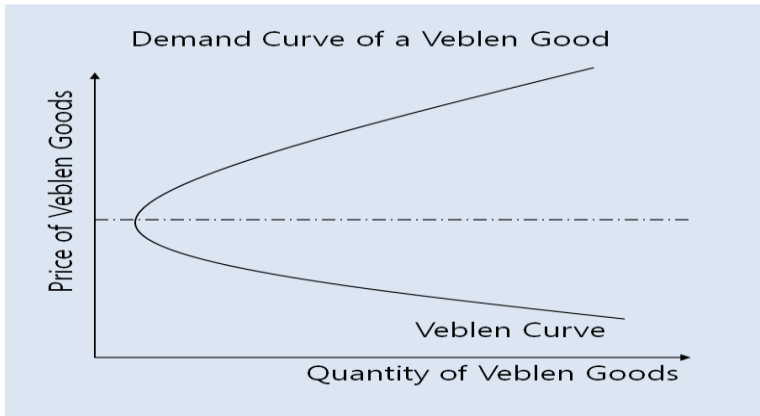
Suppose the price of Coca-Cola rises from  $P_1$  to  $P_2$  because one of the inputs rises in price. This would cause people to consume less coke, quantity decreases from  $Q_1$  to  $Q_2$ . For the substitute good Pepsi the demand curve shifts out for all price levels, from  $D$  to  $D'$ , leading to more of the substitute good consumed.

- **Complementary goods:** Two goods for which an increase in the price of one good leads to a decrease in the demand for the other good. Complementary goods are products which are used together. If the price of one good increases, demand for both complementary goods will fall. The more closely linked the goods are, the higher will be the cross elasticity of demand.

### Example:

- DVD player and DVD disks to play in it.
- Tennis balls and tennis rackets.
- Petrol and car

❖ **Veblen good:** Ostentatious goods for which the quantity demanded increases as the price rises. Individuals who consume these goods do so only because they are very expensive and therefore a sign of their status and wealth.



### VEBLEN GOODS



### ❖ What is utility?

- Want satisfying power of a commodity or service
- Psychological feeling
- Subjective concept
- Utility of a good/service varies from person to person

**The concept of utility** was originally introduced by Brogden (1949) and Taylor (1950) and further developed by Cronbach & Gleser (1965). The concept has been researched and extended by Cascio (1982); Schmidt, Hunter, and Pearlman (1982); and Reilly and Smither (1983) It was introduced as a method for evaluating the organizational benefits of using systematic procedures (e.g., proficiency tests) to improve the selection of personnel but extends naturally to evaluating any intervention that attempts to improve human performance.

### Total Utility vs. Marginal Utility:

1. **Total utility:** Total utility is the sum of the utilities which consumer obtains from consuming certain number of units of commodity per period
2. **Marginal utility:** It is the additional utility obtained from the consumption of an additional unit of the commodity. It is the utility from the last unit.

**MU = Change in total utility / Change in quantity consumed**

❖ **Cardinal utility:** Cardinal utility is the utility wherein the satisfaction derived by the consumers from the consumption of good or service can be measured numerically. Two main cardinal laws are:

1. **Law of diminishing marginal utility:** The Law of Diminishing Marginal Utility states that all else equal as consumption increases the marginal utility derived from each additional unit declines.

2. **Law of equi-marginal utility:** The law of equi marginal utility was presented in 19th century by an Australian economists H. H. Gossen. It is also known as law of maximum satisfaction or law of substitution or Gossen's second law. A consumer has number of wants. He tries to spend limited income on different things in such a way that marginal utility of all things is equal. When he buys several things with given money income he equalizes marginal utilities of all such things. The law of equi marginal utility is an extension of the [law of diminishing marginal utility](#).

### Assumptions of the Law of Equi-Marginal Utility:

1. There is no change in the prices of the goods.
2. The income of consumer is fixed.
3. The marginal utility of money is constant.
4. Consumer has perfect knowledge of utility obtained from goods.
5. Consumer is normal person so he tries to seek maximum satisfaction.
6. The utility is measurable in cardinal terms.
7. Consumer has many wants.
8. The goods have substitutes.

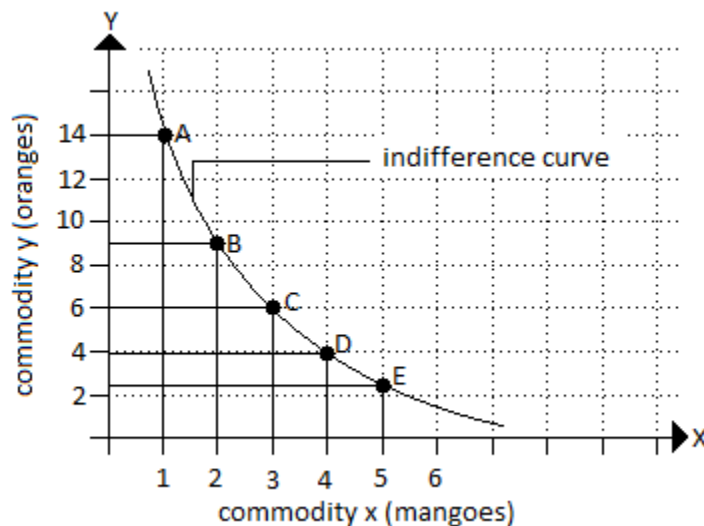
❖ **Ordinal utility:** It states that the satisfaction which a consumer derives from the consumption of product or service cannot be measured numerically. **Two main ordinal theories are:**

#### 1. Indifference curve

- An indifference curve is a graph showing combination of two goods that give the consumer equal satisfaction and utility.
- Each point on an indifference curve indicates that a consumer is indifferent between the two and all points give him the same utility.

#### Properties of indifference curve:

1. Downward sloping
2. Convex to the origin
3. Higher indifference curve represents higher satisfaction
4. Indifference curve never intersects each other



## 2. Revealed preference hypothesis

- By P A Samuelson
- Behaviouralist ordinal utility analysis
- Analyses consumer preference for the combination of commodities on the basis of observed consumer behaviour in the market
- Choice reveals preference

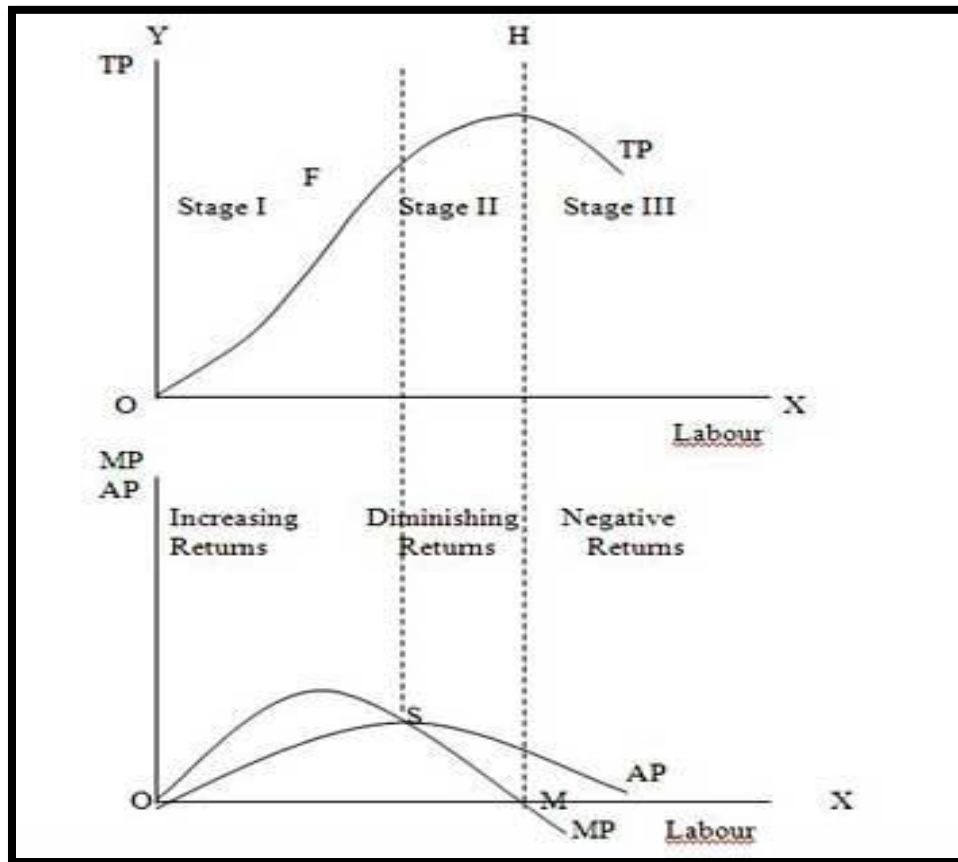
### ➤ Law of diminishing returns (Law of variable proportions)

- The law of variable proportion shows the production function in the short run
- The law of variable proportions states that as the quantity of one factor is increased, keeping the other factors fixed, the marginal product of that factor will eventually decline.
- Upto the use of a certain amount of variable factor, marginal product of the factor may increase and after a certain stage it starts diminishing.
- When the variable factor becomes relatively abundant, the marginal product may become negative.

**Assumptions:** The law of variable proportions holds good under the following conditions:

- Constant State of Technology

- Fixed Amount of Other Factors
- Possibility of Varying the Factor proportions



### Stages of law of variable proportion:

#### 1. Increasing returns

- TP increases at an increasing rate
- MP also rises and then falls
- AP rises
- Stage ends when AP reaches highest point

#### 2. Diminishing returns

- TP increases at diminishing rate
- Both AP and MP diminishes but remains constant



- Stage ends when TP reaches maximum and at the same time  $MP=0$
- It represents the range of rational production decisions

### 3. Negative returns

- TP declines and TP slopes downwards
- AP also declines
- MP becomes negative

#### ➤ Market Structure:

- A market is the area where buyers and sellers contact each other and exchange goods and services.
- When the competition is high there is a high supply of commodity as different companies try to dominate the markets and it also creates barriers to entry for the companies that intend to join that market.
- A monopoly market has the biggest level of barriers to entry while the perfectly competitive market has zero percent level of barriers to entry.
- Firms are more efficient in a competitive market than in a monopoly structure.

#### ❖ Perfect Competition:

It is characterized by following features:

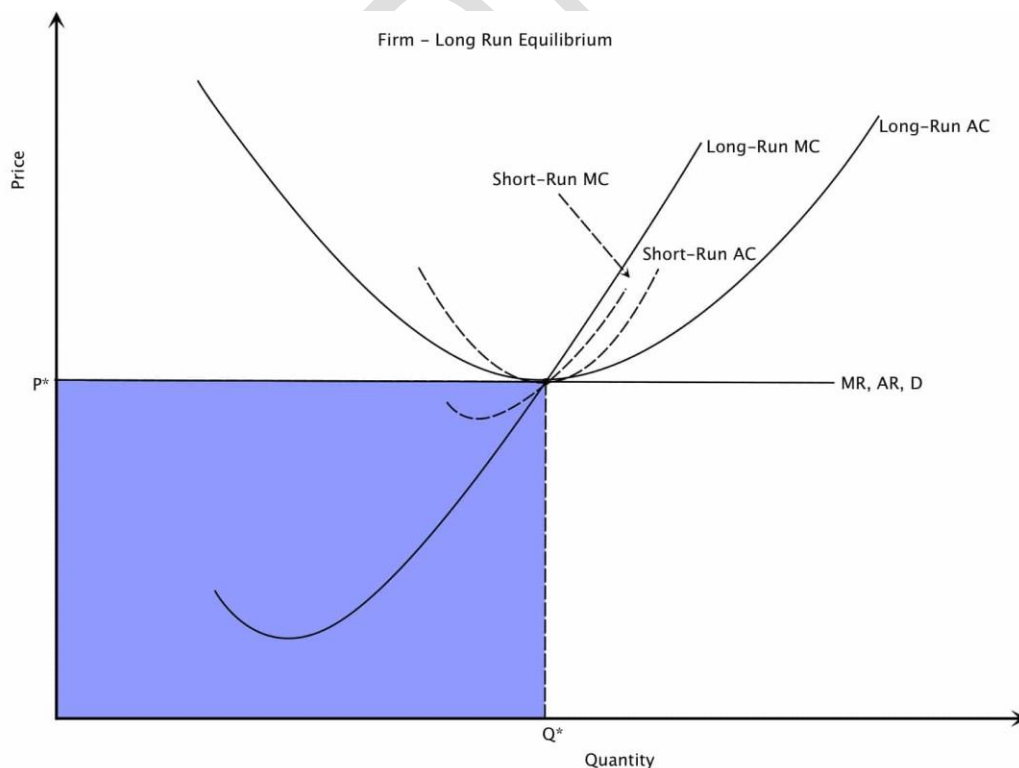
- Large number of buyers and sellers
- Homogeneous product
- Free entry and exit
- Profit maximisation
- No government regulation
- Perfect mobility of factors of production
- Perfect knowledge

❖ **Pricing Decisions:**

### Determinants of Price under Perfect Competition:-

- **TR and TC approach:** Seller aims to maximise profit (profit = TR-TC), reaches equilibrium when difference between TR and TC is maximised
- **MR and MC approach:** Profit is maximised when MR=MC. Since only one price in the market P=AR

➤ **Long Run Equilibrium:** In the long run, with the entry of new firms in the industry, the price of the product will go down as a result of the increase in supply of output and also the cost will go up as a result of more intensive competition for factors of production. The firms will continue entering the industry until the price is equal to average cost so that all firms are earning only normal profits.



- **Short-Run Equilibrium of the Firm:** A firm is in equilibrium in the short-run when it has no tendency to expand or contract its output and wants to earn maximum profit or to incur

minimum losses. The short-run is a period of time in which the firm can vary its output by changing the variable factors of production.

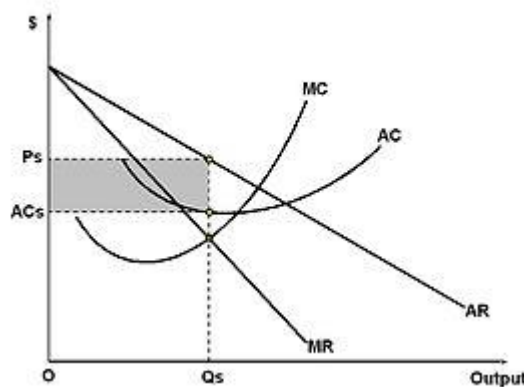
### ❖ Monopolistic Competition:

Monopolistic competition is a form of market structure in which a large number of independent firms are supplying products that are slightly differentiated from the point of view of buyers.

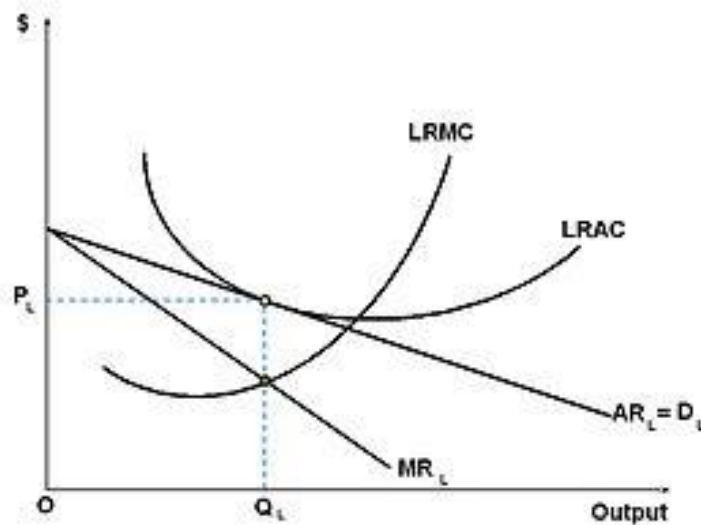
- Product differentiation
- There are large number of independent sellers and buyers in the market.
- The relative market shares of all sellers are insignificant and more or less equal. That is, seller-concentration in the market is almost non-existent.
- There are neither any legal nor any economic barriers against the entry of new firms into the market. New firms are free to enter the market and existing firms are free to leave the market.

**In other words**, product differentiation is the only characteristic that distinguishes monopolistic competition from perfect competition.

**Over the short-run, firms can usually gain some abnormal profit, but over the long run, other firms entering the market due to the low entry barriers will compete and make the price lower.**



In the long run, there are no abnormal profits because of the features of Monopolistic competition. There are a few large firms, but many small firms that will compete for profit and thus drive the price down. Also, low entry barriers mean new firms will enter the market and further add competition.



### ❖ Monopoly:

Monopoly is said to exist when one firm is the sole producer or seller of a product which has no close substitutes. According to this definition, there must be a single producer or seller of a product.

- Extreme form of imperfect competition.
- One and only one firm produces and sells a particular commodity or a service.
- There are no rivals or direct competitors of the firm.
- No other seller can enter the market for whatever reasons legal, technical, or economic.
- Monopolist is a price maker. He tries to take the best of whatever demand and cost conditions exist without the fear of new firms entering to compete away his profits.
- Since all of the firms sell the identical product, the individual sellers are not distinctive. Buyers care solely about finding the seller with the lowest price.
- Monopolist will go on producing as long as  $MR > MC$ .

**Accordingly, the standard definition** for market power is to define it as the divergence between price and marginal cost, expressed relative to price. In Mathematical terms we may define it as  
–  $L = (P - MC)$

❖ **Oligopoly:**

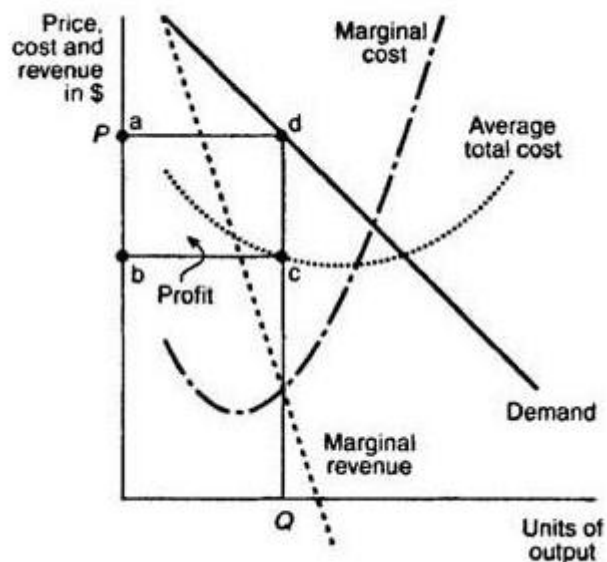
In an oligopolistic market there is small number of firms so that sellers are conscious of their interdependence. The competition is not perfect, yet the rivalry among firms is high.

**Main characteristics of Oligopoly are,**

- Few firms
- Group behaviour
- Interdependence
- Real world situation
- Advertising and selling cost
- Indeterminateness of demand curve

➤ **Kinked demand Curve for Oligopolist:**

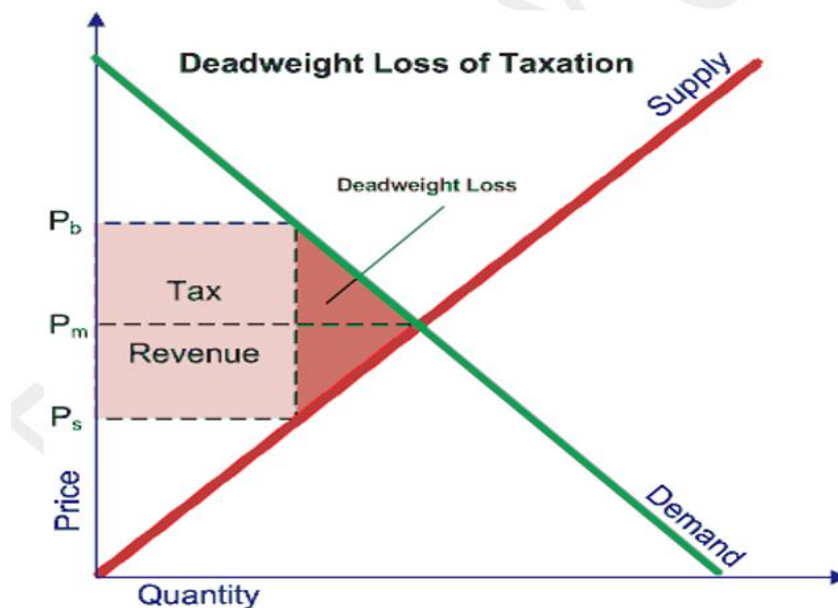
The oligopolist faces a kinked-demand curve because of competition from other oligopolists in the market. If the oligopolist increases its price above the equilibrium price  $P$ , it is assumed that the other oligopolists in the market will not follow with price increases of their own. If the oligopolist reduces its price below  $P$ , it is assumed that its competitors will follow suit and reduce their prices as well.



4 types of Market Structures	Perfect Competition	Monopolistic Competition	Oligopoly	Monopoly
Number of firms	Many	Several	Few	One
Freedom of entry	Open Access	Open Access	Controlled Access	Barriers of entry: Technical, legal & economic
Nature of Product	Uniform	Differentiated	Uniform or Differentiated	Specialized
Implications for demand curve	Horizontal line Perfect elastic	Downward sloping (elastic)	Downward sloping (inelastic) Game Theory	Downward sloping - Control over price and is more inelastic compared to Oligopoly - Straight line demand curve (MR 2x steep)
Average size of firms	Small Firms - Small enough that no firm affects the market price or quantities	Small Firms - Extremely competitive small degree of market control	Large in size - dominated	Large in size - provides all of the market's supply
Possible consumer demand	Price is unrelated to the quantity produced/sold	Firms have the ability to control the price somewhat- Competitive goods are close substitutes	Non-price competition - consumers determine how much to buy = firm successful	Demand will not remain constant as the firms increase their output
Profit making possibility	MR=MC Marginal profit is zero TR - TC	MR=MC Makes no economic profit	MR=MC (Cartel & Collusion)	MR=MC Maximizes profits - the price the firm will charge a product at the maximum possible price
Government Intervention	Government Intervention	Government Intervention - Entry can be blocked by the government or regulation	Government Intervention - Collusions are illegal in most countries w/ penalties	Government Intervention - By taxation, price setting & nationalization
Criticism	Ideal - not seen in reality	Advertising	Agreements made between few firms that divide the market up. Agree on quota or a fixed price	Being able to make economic profits in short run and long run -using power to increase price -Inefficient in productivity & allocatively -Higher price for a product & producing a lower output

### ❖ Miscellaneous terms:

- **Deadweight loss** refers to the loss of economic efficiency when the equilibrium outcome is not achievable or not achieved. Deadweight loss is the fall in total surplus that results from a market distortion, such as a tax. A deadweight loss is a cost to society created by market inefficiency. Mainly used in economics, deadweight loss can be applied to any deficiency caused by an inefficient allocation of resources.



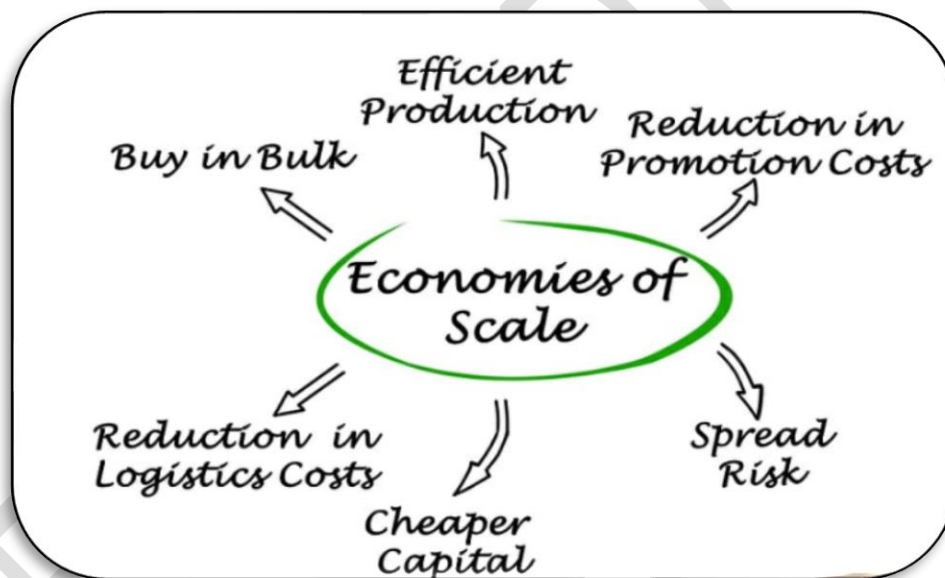
- **Opportunity cost:** The opportunity cost, also known as alternative cost, is the value of the choice in terms of the best alternative while making a decision. Consider the owner of a building who decides that her vacant first-floor space will become a restaurant. The opportunity cost of making such a decision is that the space can no longer be used for a different purpose, such as a retail store or an office space that's rented to another party.



# OPPORTUNITY COST

choice 1      choice 2

- **Economies of scale:** Economies of Scale refer to the cost advantage experienced by a firm when it increases its level of output. The advantage arises due to the inverse relationship between per-unit fixed cost and the quantity produced. The greater the quantity of output produced, the lower the per-unit fixed cost. Economies of scale also result in a fall in average variable costs (average non-fixed costs) with an increase in output. This is brought about by operational efficiencies and synergies as a result of an increase in the scale of production.

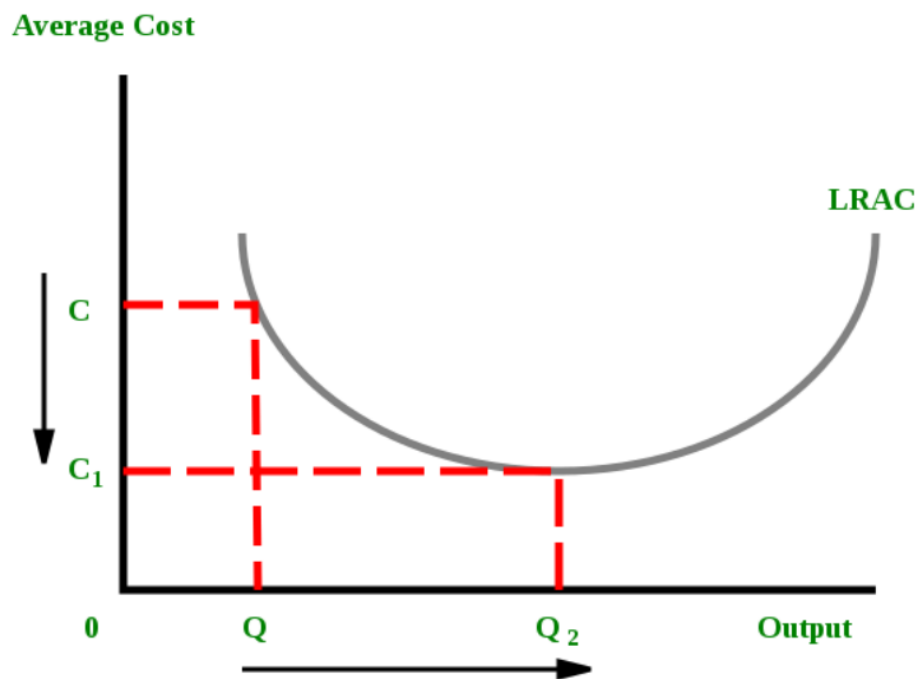


## Internal vs. External Economies of Scale:

- **Internal Economies of Scale:** They refer to economies that are unique to a firm. For instance, a firm may hold a patent over a mass production machine, which allows it to lower its average cost of production more than other firms in the industry.

- **External Economies of Scale:** They refer to economies of scale faced by an entire industry. For instance, suppose the government wants to increase steel production. In order to do so, the government announces that all steel producers who employ more than 10,000 workers will be given a 20% tax break. Thus, firms employing less than 10,000 workers can potentially lower their average cost of production by employing more workers. This is an example of an external economy of scale – one that affects an entire industry or sector of the economy.

- **Diseconomies of scale:** The property whereby long run average total cost rises as the quantity of output increases. This is shown as follows:

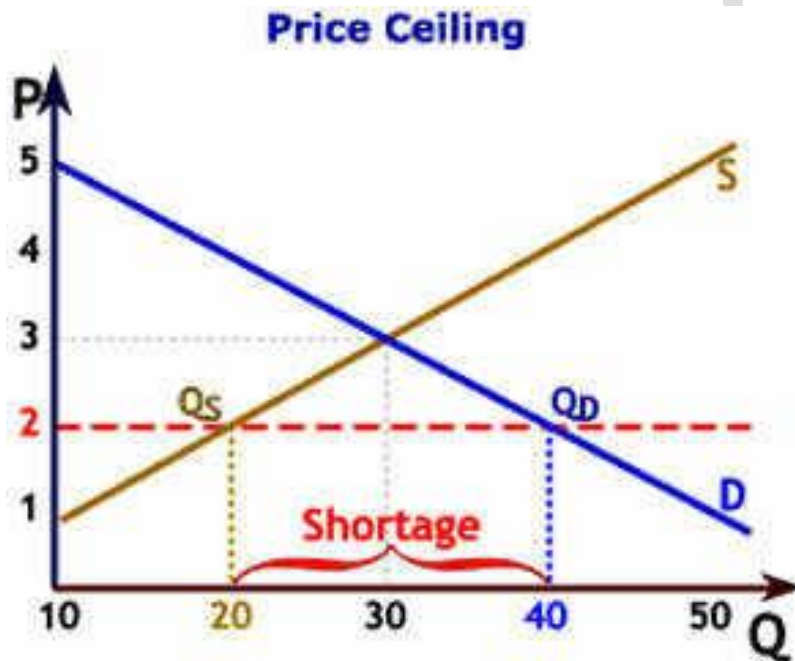


Any increase in output beyond  $Q_2$  leads to a rise in average costs. It is an example of diseconomies of scale – a rise in average costs due to an increase in the scale of production. As firms get larger, they grow in complexity. Such firms need to balance the economies of scale against the diseconomies of scale

- **Collusion:** An agreement among firms in a market about quantities to produce or prices to charge. When oligopolistic sellers cooperate on output and price, allowing for a more optimal payoff (profit) that would be achieved under competition.
- **Cartel:** A cartel is a grouping of producers that work together to protect their interests.

Cartels are created when a few large producers decide to co-operate with respect to aspects of their market. Once formed, cartels can fix prices for members, so that competition on price is avoided.

- **Price ceiling:** It is a legal maximum on the price at which a good can be sold. Price ceiling is a situation when the price charged is more than or less than the equilibrium price determined by market forces of demand and supply.



- **Price floor:** Price floor is a legal minimum on the price at which a good can be sold. Price floor is a situation when the price charged is more than or less than the equilibrium price determined by market forces of demand and supply. By observation, it has been found that lower price floors are ineffective. Price floor has been found to be of great importance in the labour-wage market.



### ❖ National Income:

- National Income is the total value of all final goods and services produced by the country in certain year. The growth of National Income helps to know the progress of the country.
- In other words, the total amount of income accruing to a country from economic activities in a year's time is known as national income. It includes payments made to all resources in the form of wages, interest, rent and profits.
- From the modern point of view, national income is defined as “the net output of commodities and services flowing during the year from the country's productive system in the hands of the ultimate consumers.”

### ❖ Concepts of National Income:

1. Gross Domestic Product (GDP)
2. Gross National Product (GNP)
3. Net National Product (NNP) at Market Prices
4. Net National Product (NNP) at Factor Cost or National Income
5. Personal Income

## 6. Disposable Income

**1. Gross Domestic Product (GDP):** Gross Domestic Product (GDP) is the total market value of all final goods and services currently produced within the domestic territory of a country in a year.

**2. Gross National Product (GNP):** Gross National Product is the total market value of all final goods and services produced in a year. GNP includes net factor income from abroad whereas GDP does not. Therefore,

**GNP = GDP + Net factor income from abroad.**

Net factor income from abroad = factor income received by Indian nationals from abroad – factor income paid to foreign nationals working in India.

**3. Net National Product (NNP) at Market Price:** NNP is the market value of all final goods and services after providing for depreciation. That is, when charges for depreciation are deducted from the GNP we get NNP at market price. Therefore'

**NNP = GNP – Depreciation**

Depreciation is the consumption of fixed capital or fall in the value of fixed capital due to wear and tear.

**4. Net National Product (NNP) at Factor Cost (National Income):** NNP at factor cost or National Income is the sum of wages, rent, interest and profits paid to factors for their contribution to the production of goods and services in a year. It may be noted that:

$$\text{NNP at Factor Cost} = \text{NNP at Market Price} - \text{Indirect Taxes} + \text{Subsidies}$$

### Personal Income vs. Disposable Income:

❖ **Personal Income:** Personal income is the sum of all incomes actually received by all individuals or households during a given year. In National Income there are some income, which is earned but not actually received by households such as Social Security contributions, corporate income taxes and undistributed profits.

**Personal Income = National Income – Social Security contributions – corporate income taxes – undistributed corporate profits + transfer payments.**

❖ **Disposable Income:** From personal income if we deduct personal taxes like income taxes, personal property taxes etc. what remains is called disposable income. Thus, **Disposable**

**Income = Personal income – personal taxes.** Disposable Income can either be consumed or saved. Therefore, **Disposable Income = consumption + saving.**

### ❖ Measurement Of National Income

Production generate incomes which are again spent on goods and services produced. **Therefore, national income can be measured by three methods:**

1. Output or Production method
2. Income method, and
3. Expenditure method.

**1. Output or Production Method:** This method is also called the value-added method. This method approaches national income from the output side.

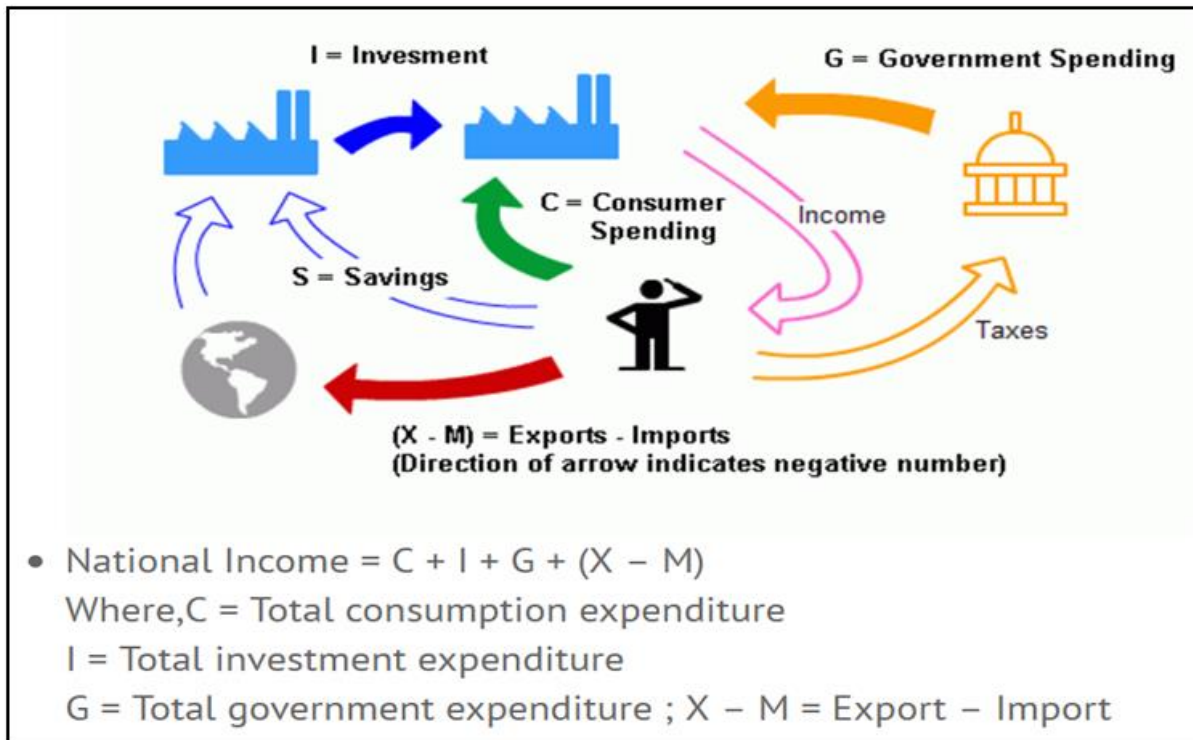
- Under this method, the economy is divided into different sectors such as agriculture, fishing, mining, construction, manufacturing, trade and commerce, transport, communication and other services.
- Then, the gross product is found out by adding up the net values of all the production that has taken place in these sectors during a given year.
- In order to arrive at the net value of production of a given industry, intermediate goods purchase by the producers of this industry is deducted from the gross value of production of that industry.
- The aggregate or net values of production of all the industry and sectors of the economy plus the net factor income from abroad will give us the GNP.
- If we deduct depreciation from the GNP we get NNP at market price. NNP at market price – indirect taxes + subsidies will give us NNP at factor cost or National Income.

**2. Income Method:** This method approaches national income from the distribution side. According to this method, national income is obtained by summing up of the incomes of all individuals in the country.

This method of estimating national income has the great advantage of indicating the distribution of national income among different income groups such as landlords, capitalists, workers, etc.

**3. Expenditure Method:** This method arrives at national income by adding up all the expenditure made on goods and services during a year. Thus, the national income is found by adding up the following types of expenditure by households, private business enterprises and the government:

$$\text{GDP} = C + I + G + (X - M).$$



### ❖ Inflation:

Inflation may be defined as 'a sustained upward trend in the general level of prices' and not the price of only one or two goods.

**G. Ackley defined inflation as** 'a persistent and appreciable rise in the general level or average of prices'. In other words, inflation is a state of rising prices, but not high prices.

### ❖ Types of inflation:

#### A. On the Basis of Causes:

- **Currency inflation:** This type of inflation is caused by the printing of currency notes.



- **Credit inflation:** Being profit-making institutions, commercial banks sanction more loans and advances to the public than what the economy needs. Such credit expansion leads to a rise in price level.
- **Deficit-induced inflation:** The budget of the government reflects a deficit when expenditure exceeds revenue. To meet this gap, the government may ask the central bank to print additional money. Since pumping of additional money is required to meet the budget deficit, any price rise may be called the deficit-induced inflation.
- **Demand-pull inflation:** An increase in aggregate demand over the available output leads to a rise in the price level. Such inflation is called demand-pull inflation (henceforth DPI).
- **Cost-push inflation:** Inflation in an economy may arise from the overall increase in the cost of production. This type of inflation is known as cost-push inflation (henceforth CPI). Cost of production may rise due to an increase in the prices of raw materials, wages, etc

#### **B. On the Basis of Speed or Intensity:**

- **Creeping or Mild Inflation:** If the speed of upward thrust in prices is slow but small then we have creeping inflation.
- **Walking Inflation:** If the rate of annual price increase lies between 3 p.c. and 4 p.c., then we have a situation of walking inflation.
- **Galloping and Hyperinflation:** Walking inflation may be converted into running inflation. Running inflation is dangerous. If it is not controlled, it may ultimately be converted to galloping or hyperinflation. It is an extreme form of inflation when an economy gets shattered.
- **Government's Reaction to Inflation:** Inflationary situation may be open or suppressed. Because of anti-inflationary policies pursued by the government, inflation may not be an embarrassing one.

#### **❖ Measurement of Inflation**



- **CPI** - The consumer price index (CPI) is a measure that examines the weighted average of prices of a basket of consumer goods and services, such as transportation, food and medical care.

### Inflation Targeting in India

The amended RBI Act provides for the inflation target to be set by the Government of India, in consultation with the Reserve Bank, once every five years. Central Government has notified 4 percent Consumer Price Index (CPI) inflation as the target for the period from August 5, 2016, to March 31, 2021, with the upper tolerance limit of 6 percent and the lower tolerance limit of 2 percent.

- **PPI** - A producer price index is a price index that measures the average changes in prices received by domestic producers for their output. Its importance is being undermined by the steady decline in manufactured goods as a share of spending.
- **WPI** - Wholesale Price Index (WPI) represents the price of goods at a wholesale stage i.e. goods that are sold in bulk and traded between organizations instead of consumers.
- **Headline and Core Inflation** - Headline inflation is a measure of the total inflation within an economy, including commodities such as food and energy prices (e.g., oil and gas), which tend to be much more volatile and prone to inflationary spikes. On the other hand, "core inflation" (also non-food-manufacturing or underlying inflation) is calculated from a price index minus the volatile food and energy components.

### **General Price Index:**

- General Price index measures the changes in average prices of goods and services.
- Inflation is measured by general prices index.
- A base year is selected and its index is assumed as 100 and on this basis price index for the current year is calculated.
- If the index of the current year is below 100, it indicates the state of deflation and, on the contrary, If the index of the current year is above 100 it indicate the state of inflation.

## ❖ Business ethics and CSR

- **Business Ethics:** moral guidelines for the conduct of business based on notions of what is right, wrong and fair. Most business people rely upon their own consciences in making business decisions, falling back upon their own moral and religious backgrounds for guidance.
- **Corporate Social Responsibility:** a business philosophy which stresses the need for firms to behave as good corporate citizens, not merely obeying the law but conducting their production and marketing activities in a manner which avoids causing environmental pollution or exhausting finite world resources.

**Companies Act 2013** includes elaborate provisions on corporate responsibility of companies. Ministry of Corporate Affairs has recently notified Section 135 and Schedule VII of the Companies Act as well as the provisions of the Companies (**Corporate Social Responsibility Policy**) Rules, 2014 which has come into effect from 1 April 2014. Every qualifying company requires spending of at least 2% of its average net profit for the immediately preceding 3 financial years on CSR activities.

## ❖ Corporate governance

- Corporate governance refers to the **set of systems, principles and processes by which a company is governed.**
- They provide the guidelines as to how the company can be directed or controlled such that it can fulfil its goals and objectives in a manner that adds to the value of the company and is also beneficial for all stakeholders in the long term.

## ❖ Value based organisation:

A values-based organization (VBO) is a **living, breathing culture of shared core values among all employees.** This is different from the traditional structure which is a more machine-like, business approach that focuses on an authoritarian type relationship or rigid organizational structure.

A values-based organization is a **culture shaped by a clear set of ground rules** establishing a foundation and guiding principles for decision-making, actions and a sense of community.

In a values-driven culture, **employees find alignment between their personal values and the organization's values** creating a unified and motivated workforce. Management and leadership set examples for their organizations and live the values they preach.

**Strongly held value-systems rarely change yet remain flexible to handle changes in strategy or outside influences such as competition or the economy.** A strongly held values-based culture or purpose will remain more stable over time characterized by productivity and employee commitment.