

#### Production

- As per Carl Heyel (16 Feb 1908 16 May 2000), "Production is the process of transforming raw materials or purchased components into finished products for sale."
- Production is a process of transforming (converting) inputs (raw-materials) into outputs (finished goods).
- So, production means the creation of goods and services. It is done to satisfy human wants. Thus, production is a process of transformation.

#### Types of production system



**Job** production system



**Batch** production system



Mass production system

# Job production system

Job production- sometimes called jobbing or one-off production, it is characterized by manufacturing of one or few quality of products designed and produced as per the customer specification within prefixed time and cost.

It requires or demands unique technological, demands processing on machines in a certain sequence.

## Batch production

batch production-as a form of manufacturing in which the job passes through the functional departments in lots or batches and each lot may have a different routing.

• In this system limited number of products produced at regular intervals and stocked awaiting sales .

#### Mass production

• Mass production-manufacturing of discrete parts or assemblies using a continuous process are called mass production .

#### **PRODUCTIVITY**

Productivity (P) = 
$$\frac{\text{Output }(O)}{\text{Input }(I)}$$

- Productivity refers to the physical relationship between the quantity produced (output) and the quantity of resources used in the course of production (input).
- "It is the ratio between the output of goods and services and the input of resources consumed in the process of production.
- Productivity is the ratio between output of wealth and input of resources used in production processes

#### Factors Affecting Productivity

#### Human

- Ability to work
- Willingness to work

#### **Technological**

- Size and capacity of plant
- Product design and standardization
- Timely supply of Material and fuel
- Rationalization and automation measures
- Repairs and maintenance
- Production planning and control

#### Cont ...

- Plant layout and location
- Materials handling system
- Inspection and quality control
- Machinery and equipment used
- Research and development
- Inventory control
- Reduction and utilization of waste and scrap
- Managerial
- Natural
- Sociological

Cont ...

### Political

Economic

Controllable
Factors
&
Uncontrollable
Factor

Controllable Factors- Controllable Factors are considered as internal factors. These are the factors which are in control of industrial organization.

Uncontrollable Factors: Uncontrollable factors are known as external factors and these factors are beyond the control of the individual industrial organization.

#### Controllable Factors

**Material and power** 

**Machinery and Plant layout** 

**Human Factor** 

Organization and managerial factor

**Technological Factors** 

### Uncontrollable factor

# **Economic Political and Social Changes**

**Natural Resources** 

**Government Factor** 

# IMPORTANCE OF PRODUCTIVITY

It helps to reduce the cost of production per unit through more economical or efficient use of resources.

Reduction in costs helps to improve the profits of a business. The enterprise can more successfully compete in the market.

The gains of higher productivity can be passed on to consumers in the form of lower prices and/or better quality of products.

Similarly, gains of higher productivity can be shared with workers in the form of higher wages or salaries and better working conditions.

#### Cont...

Availability of quality goods at reasonably low prices helps to improve the standard of living in the country.

Due to higher productivity, a firm can survive and grow better. This helps to generate more employment opportunities.

A more productive enterprise can better export goods and earn valuable foreign exchange for the country.

Higher productivity means better utilization of the country's resources, which helps to control inflation in the country.

#### Ways to Improve Productivity

Adoption of up to date technology in machines and equipment.

Implementing a proper system of managerial planning and control.

Effective time management.

Maintenance of work facilities in factories.

Standardisation and automation for mass production.

Empower employees by providing training and an environment conducive for personal is well as organisational growth.

Let workers participate in management.

Provide a flexible work schedule instead of rigid working hours.

Clear communication should be there between management and workers.

Cont...

### MATERIALS HANDLING

#### **Materials Handling**

 Materials handling is the art and science of moving, packing and storing of substances in any form.

#### Importance of Material Handling



Function of production control



Concerned with scheduling of production control



Material Handling adds value to product cost



Material Handling increases effectiveness of in plant layout by reducing the cost

#### **Objectives of Materials Handling**



#### **Material Handling Principles**

Material should be moved as little as possible

Reduction in time by using shortest routers and mechanical material handling equipment

The material movement should be in lots rather than in individual units

Design of material handling equipment should be such that it can increase the effectiveness

Gravity should be used

Rehandling and back tracking of materials should be avoided

Periodically Repairing, Maintaince & Checkup of existing material handling equipments



Production problem

Human element involved

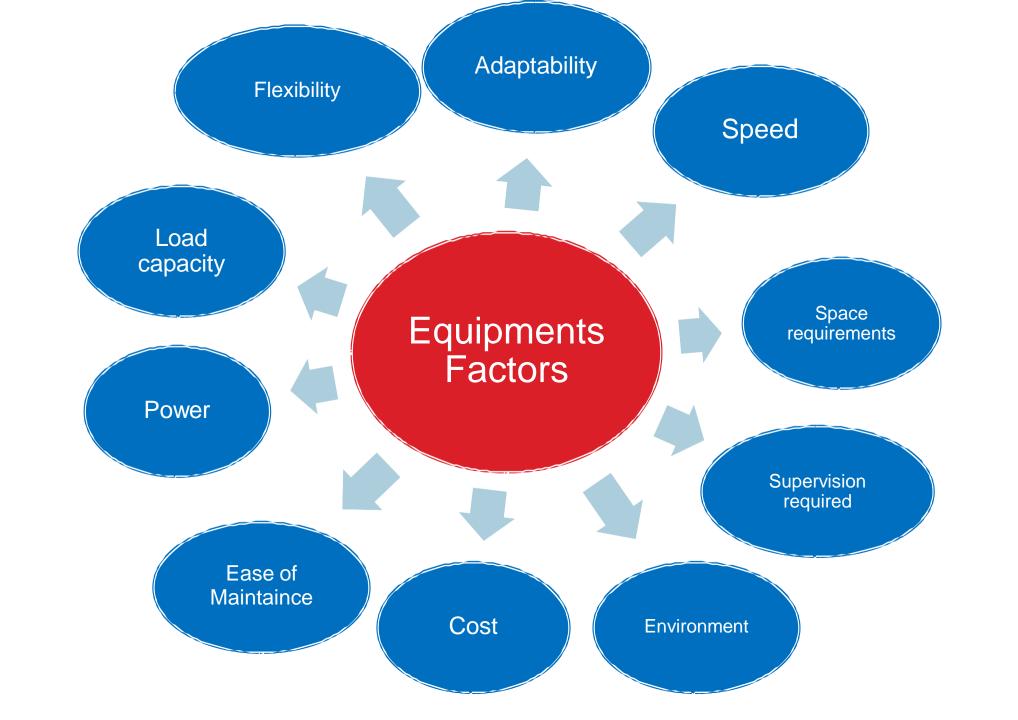
Capabilities of the handling equipment available

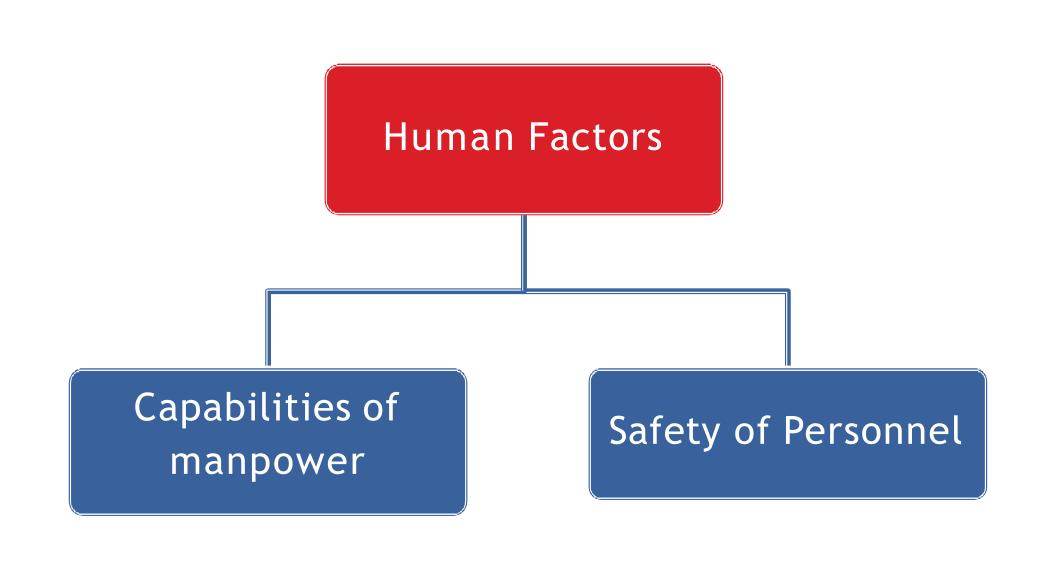
Volume of Production to be maintained

Production Problem

Layout of plant & building facilities

Class of materials to be handled





# Type of material handling system

#### Equipments oriented systems :-

- Convey or Systems
- Tractor transfer system
- Fork lift truck
- Industrial truck system
- Underground system

#### **Material Oriented Systems**

- Unit handling system
- Bulk handling system
- Liquid handling system

#### Methods oriented system

- Manual systems
- Automated systems
- Job shop handling system
- Mass production system

#### Function oriented system

- Transportation systems
- Conveying systems
- Transferring systems
- Elevating systems

Type of material handling equipment.

Conveyers

Cranes, Elevators and Hoists

**Industrial Trucks** 

**Auxiliary Equipments** 

1. Conveyors-

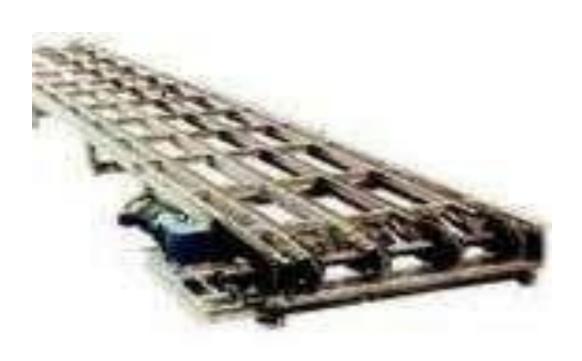
Gravity or powered devices

Used for moving loads from one point to point over fixed paths.

## **Belt Conveyor**-Motor driven belt usually made of metal fabric



• Chain conveyor-motor driven chain that drags materials along a metal slide base.



Roller Conveyor- Boxes, large parts or units loads roll on top of a series of rollers mounted on a rigid frame.



#### Pneumatic Conveyor-

High volume of air flows through a tube carrying materials along with air flow.



#### 2. Cranes, Elevators and Hoists

These are overhead devices used for moving varying loads intermittently between points within an area.

**Cranes** –Devices mounted on overheard rail or ground wheels or rails .They lift, swing and transport large and heavy materials



# **Elevators** –Types of cranes that lift materials –usually between floors or buildings



Hoists- Move vertically or horizontally. May be air hoist, electric hoist, chain hoist



3. Industrial Trucks- May be electric, deisal, gasoline or gas powered

#### **Fort lift Truck**



#### Pallet truck-



Auxiliary Equipments-Devices or attachments used with handling equipments to make their use more effective and versatile

### Skid boxes



## Expendable pallet





Plant layout

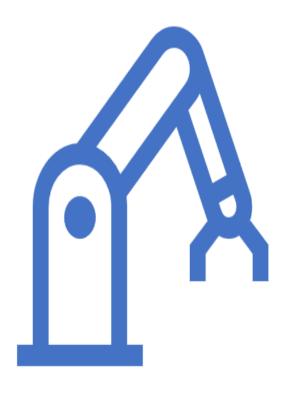
- A **plant layout study** is an engineering study used to analyze different physical configurations for a manufacturing plant.
- In industry sectors, it is important to manufacture the products which have **good quality** and **meet customers' demand**.
- This action could be conducted under existing resources such as employees, machines and other facilities. However, plant layout improvement, could be one of the tools to response to increasing industrial productivity.



#### Continue.....

- Plant layout design has become a **fundamental basis** of today's industrial plants which can influence parts of work efficiency.
- It is needed to appropriately plan and position employees, materials, machines, equipment, and other manufacturing supports and facilities to create the most effective plant layout.

# Plant Layout Principles

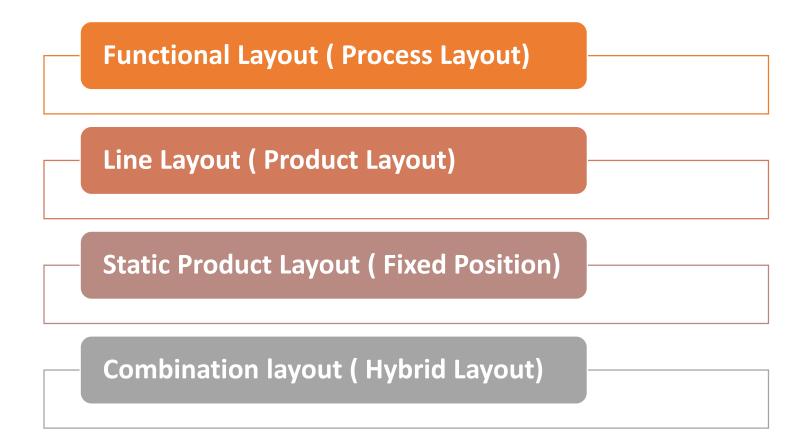


- Integration of all factors The plant should integrate all the essential resources of men, machines and materials in order to give an optimum level of production.
- **Minimum Movement** The less the movement of men, machines and materials, the less will be the cost of production. Thus, minimum movement of theses resources will provide cost efficiency.
- **Unidirectional flow** All materials should progressively move towards the same direction i.e. towards the stage of completion.

#### Continue....

- **Maximum protection** The layout should ensure the protection of the materials and machines while they are in the working or the storage stage.
- **Maximum flexibility** The plant layout should not be rigid and permanent. If the need arises, the plant layout should be able to change itself without being expensive.
- Safety and security The environment of the plant should be safe for the workers as well as the machines. There should be minimum contact of the labour to chemicals and environment.

# Type of plant layout



## 1) Functional Layout (Process Layout)

- Also called as process layout.
- Its best suited for intermittent type of operation.
- Machines on layout are called as general-purpose machines.
- It involves a grouping together of like machines in one section / dept.

#### **Example:**

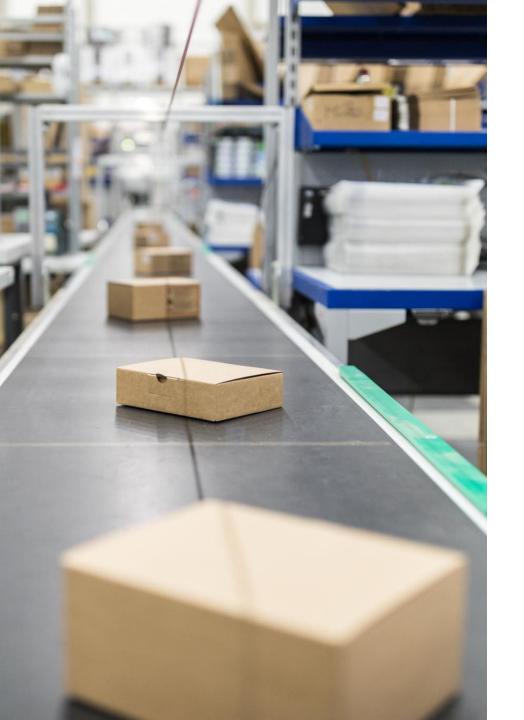
- Machines performing grinding operation are installed in grinding dept.
- Machines performing drilling operation are installed in drilling dept.
- Heat Treatment / Painting etc.

#### **Advantages:**

- Easy to handle machine breakdown by transfer of to another machine.
- Greater Scope for expansion.
- Investment on equipment will be comparatively low.
- Full utilization of equipment.

#### **Disadvantages:**

- Requires more floor space.
- Difficulty in movement of material.
- Production control is difficult.
- High production time as material must travel from place to place.



# 2) Line Layout (Product Layout)

It involves the arrangement of machines in one line, depending on operation sequence.

- Raw material will be fed in first machine & final product will come out of last machine.
- Output of one machine becomes input to next machine.

#### **Example:**

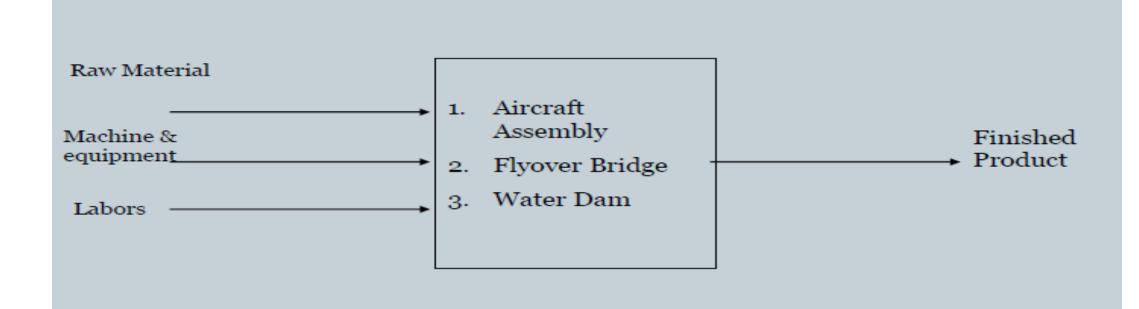
Sugar refineries / Paper mills / Cement plants / Rolling mills.

#### **Advantages:**

- Smooth & regular flow of finished goods.
- Shorter processing time due to less travel, storage & inspection frequency.
- Reduced material handling.
- Low cost labors & lesser training requirement.
- Use of special purpose machines (SPM), automatic or semi automatic.
- Easy production control.

#### **Disadvantages:**

- Heavy capital investment.
- Non flexible layout.
- Risk of total production line shutdown..



#### Advantages:

- The investment on layout is very small.
- The high cost & difficulty in transporting a bulky product are avoided.

#### **Disadvantages:**

- High cost of operation.
- Very high duration of project.
- Rework will be very costly.

## Combination layout (Hybrid Layout)

It is a combination of product & process layout with an emphasis on either.

- ➤ In industries plants are never laid out in either pure form.
- It is possible to have both types of layouts in an efficient combine form if the products are somewhat similar & not complex.

Fabrication of parts ----Process Layout

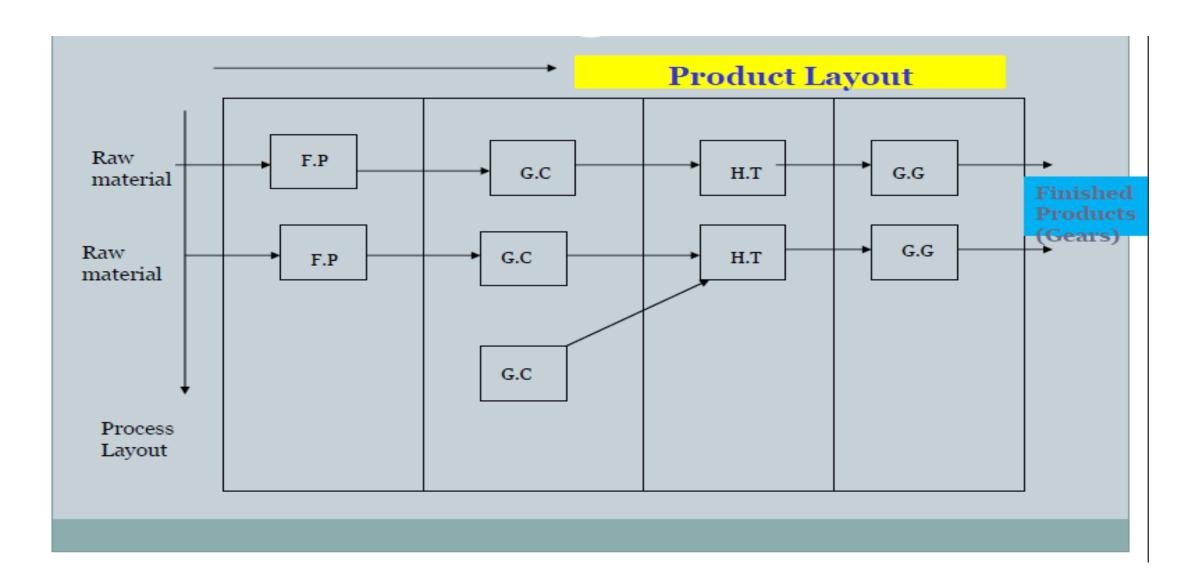
Assembly of parts ----Product layout

Ex: Soap Manufacturing Machines ---- Product line

Process Layout ----- Functional basis--- Ancillary services ----

power house / water treatment plant.

F.P: Forging Press, G.C: Gear Cutting, H.T: Heat Treatment, G.G: Gear Grinding Machine



## Factor influencing plant layout

- **1. Factory Building**: The nature & size of building determines the floor space available for layout While designing the special requirements i.e. Air conditioning, dust control, Humidity control, Noise proofing etc must be kept in mind.
- 2. **Nature of product**: Product layout is suitable for uniform products. Process layout is suitable for custom made products.
- 3. **Production process**: In assembly line industries product layout is better. In job order or intermittent manufacturing process layout is desirable.
- **4.Types of machinery**: General purpose machines are arranged as per process layout, Special purpose machines are arranged as per product layout.

#### Cont...

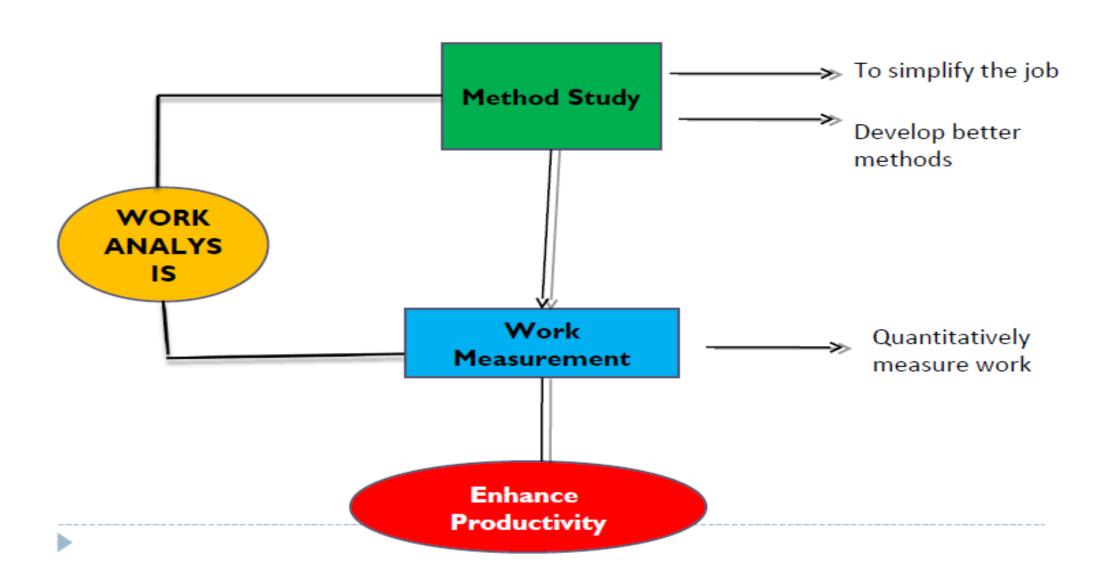
- 5. **Repairs & Maintenance**: Machines / Equipments must be arranged keeping in mind the movement of operators & maintenance tools.
- 6. **Human Needs**: Adequate arrangement should be made for Wash rooms, drinking water / Canteen & other employee facilities.
- **7.Plant Environment**: Heat / Noise / Light / Ventilation & other aspects should be duly considered e.g. Paint shop / Fabrication / Plating section should be located separately to protect employees from harmful fumes etc. Adequate safety arrangement should be made.

# Work study

Work study or work analysis is the discipline of industrial engineering that uses various techniques to quantitatively measure or estimate work to increase the amount produced from a given quantity of resources by improving the use of existing resources.

#### **Definition**

- Work study is defined as that body of knowledge concerned with the analysis of the work methods and the equipment used in performing a job, the design of an optimum work method and the standardization of proposed work methods.
- Work study is also understood as a systematic objective and critical examination of the factors affecting productivity for the purpose of improvement. It make use of techniques of method study and work measurement to ensure the best possible use of human and material resources in carrying out specific activity.



#### Objectives of Work Study

- To analyze the present method of doing a job , systematically in order to develop a new and better method
- To measure the work content of a job by measuring the time required to do the job for a qualified worker and hence to establish standard time.
- To increase the productivity by ensuring the best possible use of human, machine and material resources and to achieve best quality product/service at minimum possible cost.
- To improve operational efficiency.

#### Basic work study Procedure

- •Select the job or the process or the operation to be studied
- Record all relevant facts about the job or process or operation using suitable charting techniques such as operation process charts, flow process charts etc..
- •Examine critically all the recorded facts ,questioning the purpose place, sequence, person and the means of doing the job/process/operation.

#### Basic work study Procedure

- •Develop the new method for the job/process/operation
- Measure the work content and establish the standard time using an appropriate work measurement technique
- •Define the new method for the job/process/operation
- Install the new method as standard practice.
- Maintain the new method for the job/process/operation

#### Benefits of Work Study

- Increased productivity and operational efficiency.
- Reduced material cost.
- •Improved work place layout.
- •Better manpower planning and capacity planning.
- Fair wages to employees.
- •Better working conditions to employees.
- Improved workflow.

#### Method study

• Work methods analysis or methods study is a scientific technique of observing, recording and critically examining the present method of performing a task or job operation with the aim of improving the present method and developing a new and cheaper method.

#### Objectives of methods study

- To study the existing / proposed method of doing any job or activity.
- To develop an improved method to improve productivity and to reduce operating cost.
- To reduce excessive material handling movement and thereby reduce fatigue of workmen.
- To improve utilization of workers.
- To eliminate wasteful and inefficient motions.
- To standardize work methods or processes, working conditions, machinery, equipment and tools.

#### Advantages of Method study

- Work simplification
- Improved working methods
- Better product quality
- Improved workplace layout
- Improved equipment design
- Better working conditions
- Better material handling and lesser material handling cost
- Improved work flow
- Less fatigue to operator

#### Advantages of Method study

- Optimum utilization of all resources
- Higher safety to work men
- Shorter production cycle time
- Higher job satisfaction of workmen
- •Reduce material consumption and wastage
- •Reduced manufacturing cost and higher productivity.

#### Factors facilitating Methods Study

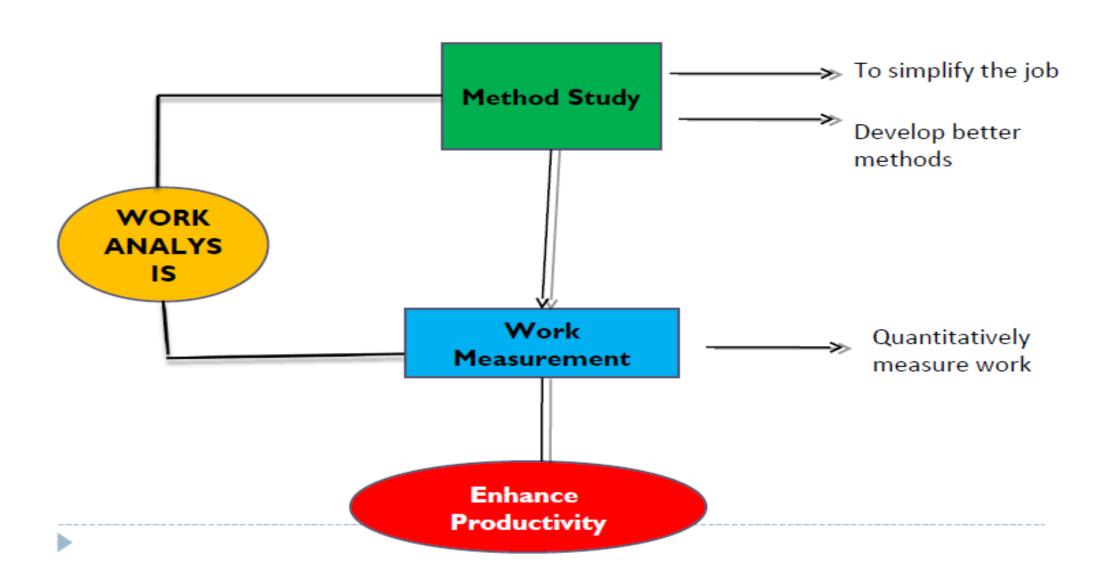
- High operating cost
- High wastage and scarp
- •Excessive movement of material and workmen
- Excessive production bottlenecks
- Complaints about quality
- Complaints about poor working conditions
- •Increasing number of accidents
- •Excessive use of overtime

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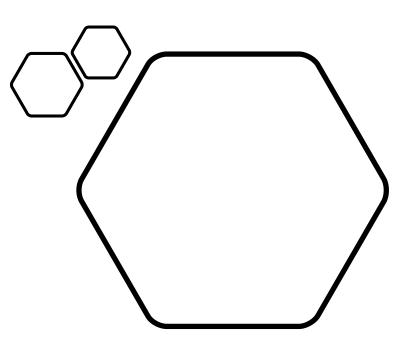
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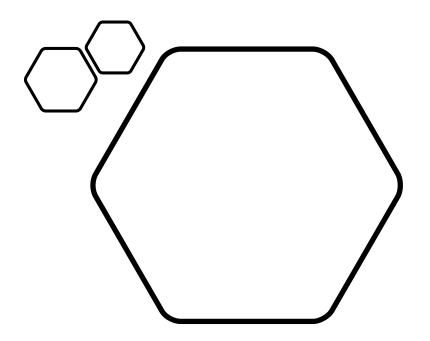
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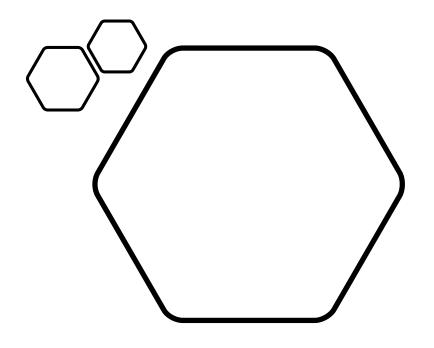
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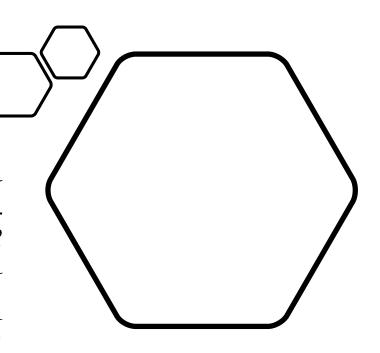
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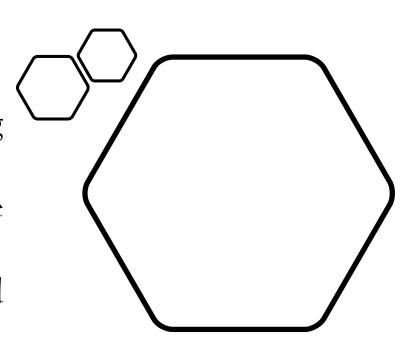
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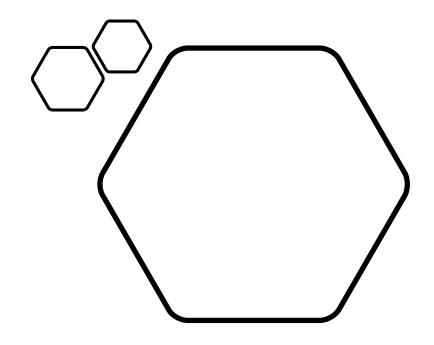
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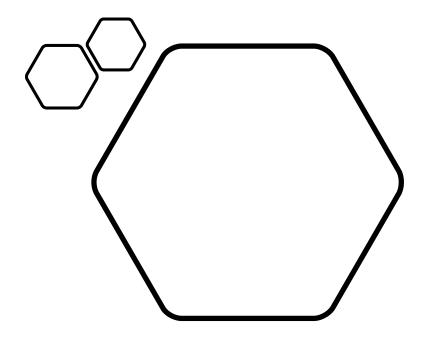
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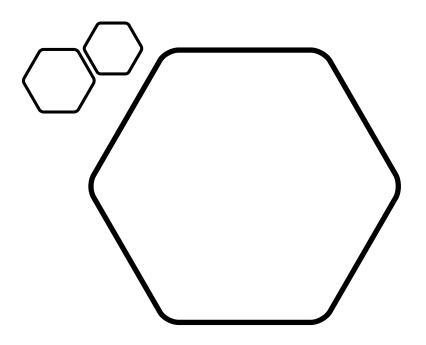
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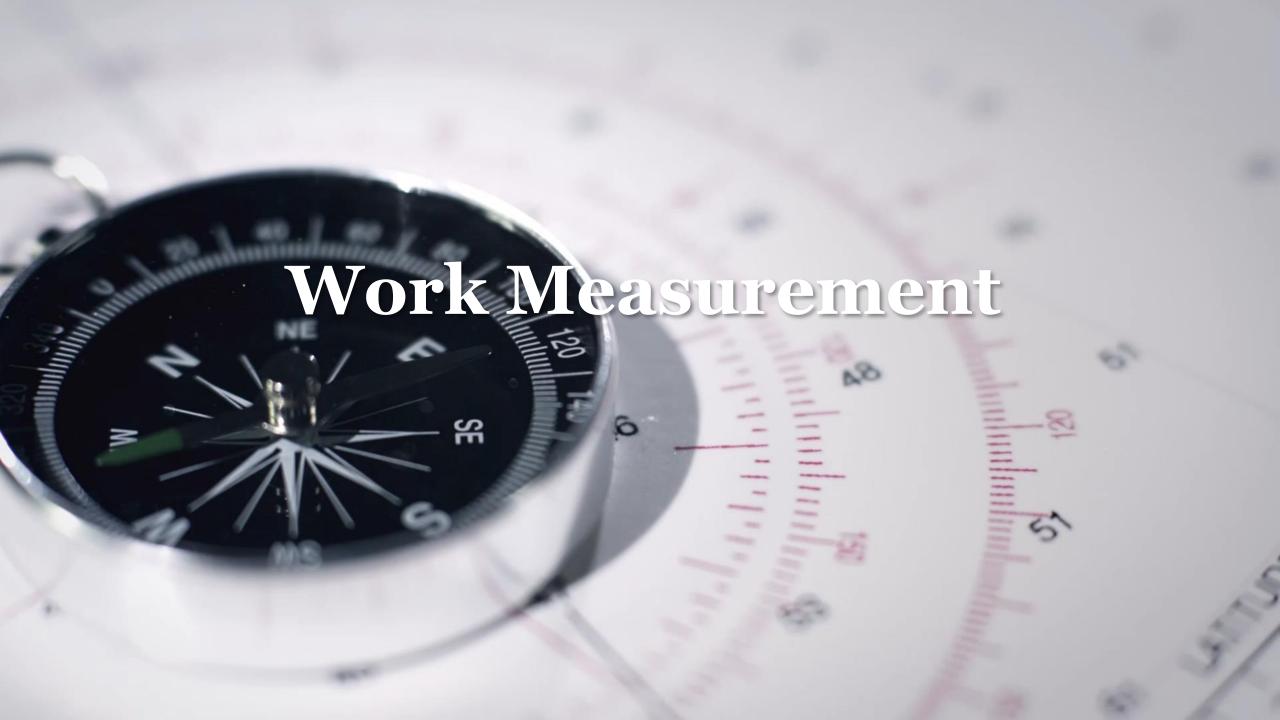


## Method Study Procedure

- Select the work or job to be studied and define objectives to be achieved by method study.
- Record all relevant facts or information pertaining to the existing method using the recording techniques such as

#### Process Charts: Outline process chart

- Operation process chart
- Flow process chart
- Man-Machine chart
- Multiple activity chart
- Simultaneous motion chart
- Motion chart
- Film analysis chart



- Work measurement is concerned with the determination of the **amount of time** required to perform a unit of work. Work measurement is very important for promoting productivity of an organization. It enables management to compare alternate methods and to do initial staffing. Work measurement provides basis for proper planning.
- Since it is concerned with the measurement of time it is also called 'Time Study'. The exact examination of time is very essential for correct pricing. To find the correct manufacturing time for a product, time study is performed. To give competitive quotations, estimation of accurate labour cost is very essential. It becomes a basis for wage and salary administration and devising incentive schemes.

- Work measurement has been defined by British Standard Institution as, "The application of techniques designed to establish the time for a qualified worker to carry out a specified job at a defined level of performance".
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### **Objectives of Work Measurement**

- To compare the times of performance by alternative methods.
- To enable realistic schedule of work to be prepared.
- To arrive at a realistic and fair incentive scheme.
- To analyze the activities for doing a job with the view to reduce or eliminate unnecessary jobs.
- To minimize the human effort.
- To assist in the organization of labor by daily comparing the actual time with that of target time.

#### **Uses of Work Measurement**

- Wok measurement is used in planning work and in drawing out schedules
- Wok measurement is used to determine standard costs
- Wok measurement is used as an aid in preparing budgets
- It is used in balancing production lines for new products
- Wok measurement is used in determining machine effectiveness.
- To determine time standards to be used as a basis for labour cost control
- To determine time standards to be used for providing a basis for wage incentive plans

#### Recording technique

#### Process Chart Symbols:

- Indicates the main steps in a process, method or procedure.
- Usually the part, material or product concerned is modified or changed during the operation temporary Storage or Delay.

#### Outline Process Chart:

 An outline process chart is a process chart giving an overall picture by recording in sequence only the main operations and inspection

#### Flow process charts:

• Flow process charts are graphic representations of the sequences of operations, transportation, inspections, delays and storages occurring during a process or a procedure and include information considered for analysis such as, time required, and distance moved.

#### Material or product type flow process chart:

• Records what happens to the material or product i.e. the changes the material or product undergoes in location or condition (includes operation and transportation).

#### Two Hand Process Chart:

Two-Handed Flow Process Chart, is a motion study where the study is done to analyze the motions used by the worker in performing an activity. In this chart the activities of a worker's hands (or limbs) are recorded in their relationship to one another.

#### Multiple activity chart:

A Multiple activity chart is a form of process chart recording the related sequence of work of a number of operators and/or machines on common time scale. In it, the activities of more than one item, worker, machine or equipment are recorded on a common time scale to show their inter-relationship.

Event/ Motion	Symbol	Explanation
Operation		Operation means an action. It is one of the steps in the procedure. Any operation for making, altering or changing the job is said to be an operation.  Eg. Cutting and shaping the wood in the manufacture of furniture.
Inspection		It represents checking for quality and quantity of the items.  Eg. Weight check or quantity check or hardness during drug preparations.
Transport	$\qquad \qquad \Box >$	Movement or travel of workers or materials from one location to another.  Eg. Steel rods being sent to machine shops from stores.
Delay or Temporary Storage		Delay means the process has stopped due to some reason. It is a temporary halt. Eg. Power failure or waiting for the lift.
Storage		It is the stage of a finished good or raw material waiting for an action.  Eg. A finished product in a stock room.
Operation and Inspection		A product is being weighed when it is repacked.  Eg. In an automatic process where a milk tin is weighed.
Operation cum Transportation		Products are made and ready for travel.  Eg. Washing a product when it is being transported.

#### **Critical Examination**

• In method study, recording is always followed by critical examination of that recorded date. Examination should be critical but impartial. So examination is just a technique to check the significance or bottlenecks of a process. But which activities to be examined first and now, are the points to be kept is mind while examination.

### categorize the various activities in two types

- Activities are which material is worked upon, moved or examined
- Activities in which material are not touched, being either in storage or in a delay operation. So, the first activities to be examined must be those which are obviously nonproductive or activities like delay, storage etc.

• There are two stages of examining or questioning the activities **-premier Questions and secondary Questions Sessions**. Primary questions are based on the purpose, Place, sequence, person and means.

### primary questions

- What is done and what is its significance. (Purpose).
- Where is the process carried out and why at that place? (Place).
- In which sequence, it is done> (sequence)
- Who is performing that process and why he is performing? (Person).
- By what means, process is carried out and why? (Means).

### Secondary questions

- What should be done and what else we could have done (Purpose).
- Where should the process be carried out and where else we could have performed it (Place).
- Which sequence is perfect for this process and what else sequence is possible? (Sequence).
- Who should perform it and who else might do it? (Person).
- How should it be performed and how else might it be performed? (Means).

# Time recording techniques used in time study

- Stop Watch Method
- Time Recording Machine
- Motion Picture Camera

# Stoppers procedure for collecting time study data.

- Stop Watch Time Study is one of the equipment used for Time Study. It is employed for measuring the time taken by an operator to complete the work. Stop watch used for time study purpose should be very accurate and preferably be graduated in decimals so that it can recover even up to 0.01 minute.
- A large hand in the stop watch is revolved at a speed of one revolution per minute. The dial of the stop watch is divided into 100 equal divisions. The small hand inside the stop watch revolves at a speed of one revolution in 30 minutes.

# The stop watch procedures for collecting Time Study Data are listed below:

- Analyse the job to establish the quality to be achieved in the job.
- Identify key operations to be timed in the job.
- Get improved procedure from the method study department.
- Organise resources and explain the objectives of time study to the worker and supervisor.
- Explain details to worker about improved working procedure.

- Break operation into elements to separate the constant elements from variable elements.
- Observe and record the time taken by an operator.
- Determine for number cycles to be timed and then the average time or representative time can be found out.
- Rate of performance of the worker during observation.
- Calculate normal time from observed time by using performance rating factor.

- Add process allowance rest and personal allowance and special allowances to the normal time in order to obtain standard time or allowed time.
- Standard time determination by adding normal time and allowances.

## **Equipments of Stop Watch Time Study:**

• Stop watch is one of the important timing devices used for measuring the time taken by a worker to complete a job. Stop watch is an accurate time measuring equipment which can normally run continuously for half an hour or one hour and record the time by its small hand. One revolution of the big hand records one minute. Even the scale covering one minute may be calibrated into intervals of 1/100th of a minute.

# There are three types of stop watches and they are:

- Non-fly back stop watch
- Fly back stop watch
- Split hand or split second type stop watch.

## Non-fly back stop watch:

• This stop watch is used for continuous timing. When the winding knob is pressed for the first time, the watch starts and the long hand begins to move, now if the winding knob is pressed for the second time, the long hand stops. If the winding knob is pressed for the third time, the hand returns to zero position.

## Fly back stop watch:

- When two elements are to be timed and the second element is immediately after the first element, fly back stop watch is required. In a fly back stop watch, the watch is started and stopped with the help of a slide.
- By pressing the wind knob, the hands are brought back to zero, but they move forward again immediately without stopping. To stop the hand at any point, the slide is used. This watch is used to take continuous timing observation.

### Split-hand stop watch:

- A split hand stop watch is used to get greater accuracy when two elements are to be timed and the second element is immediately after the first element. The stop watch is started and the first element is observed.
- After the completion of first elements the winding knob is pressed which makes one hand to stop but the other hand keeps moving. After the reading has been taken for the first element, the winding knob is pressed for the second time which restarts the stopped hand making the two hands go together.

Time Study Form						:				
Date						:		Description		:
Time Study Engineer :						:		No. of	No. of Cycles	
Product :						:	Standard time			
Operation :						:	found			:
Element Description	Observed Time (Stop Watch Reading)					Average time	Rating	Normal time	Allowance	Standard time
	1	2	3	4	5					

• Performance rating plays the most important role in the process of setting standard time. Performance rating is used to determine "fair day's work". When a group of workers are doing the same job, the common question will be "Is an individual worker doing rapidly or is he taking more time intentionally?". The solution to the question is "Performance rating". Thus rating means gauging and comparing the pace rate or the performance of a worker against standard performance level set by the time study engineer.

## Management

Management is the process of planning, organizing, leading, and controlling an organization's human, financial, physical, and information resources to achieve organizational goals in an efficient and effective manner.

#### Definitions of Management

 Management is a multipurpose organ that manages a business and manages managers and manages workers and work."

#### - Peter Drucker,

Harold Koontz defined management as "the art of getting things done through and with people in formally organized groups."

#### Function of Management







**ORGANIZING** 



COORDINATING



DIRECTING



CONTROLLING



DECISION MAKING

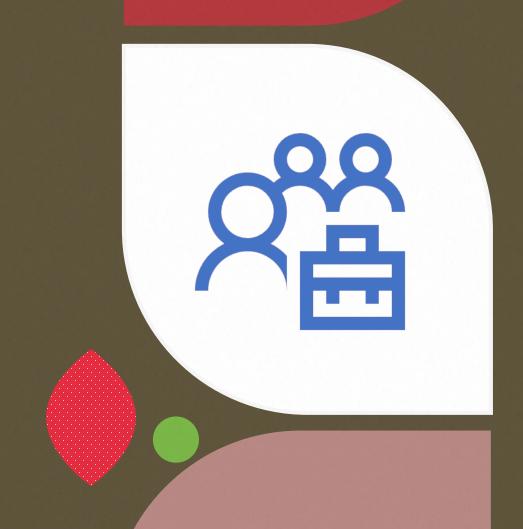
### Planning

- Defining Organization Vision & Mission
- Setting Goals & Objectives
- Strategizing
- Plan of Action to Achieve Goals



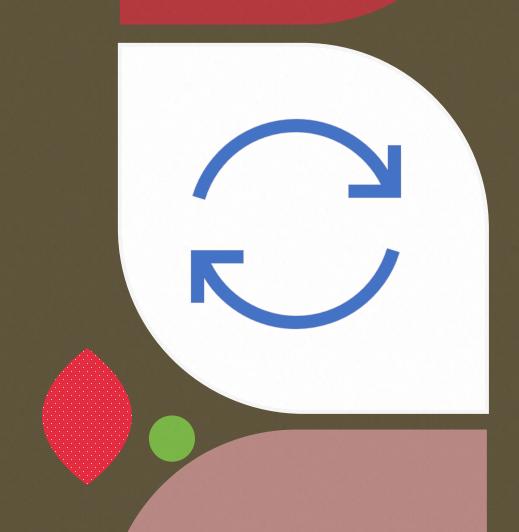
## Organizing

- Formulate Organizational Structure
- Resource Allocation
- Job Design



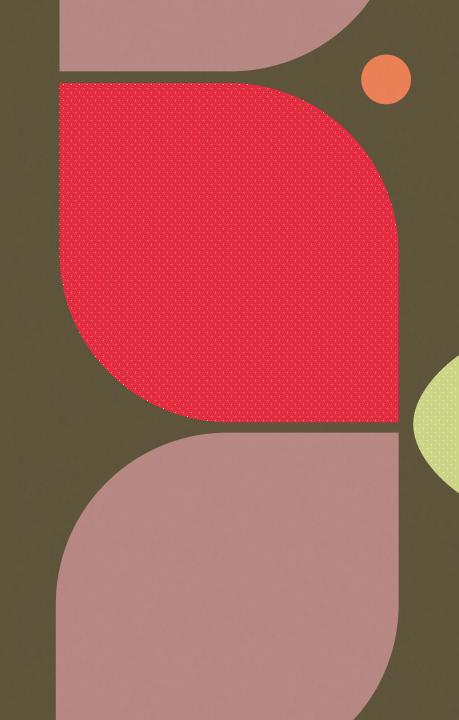
#### coordination

- Communicating
- Integration
- Unification
- synchronization of the efforts of the departments



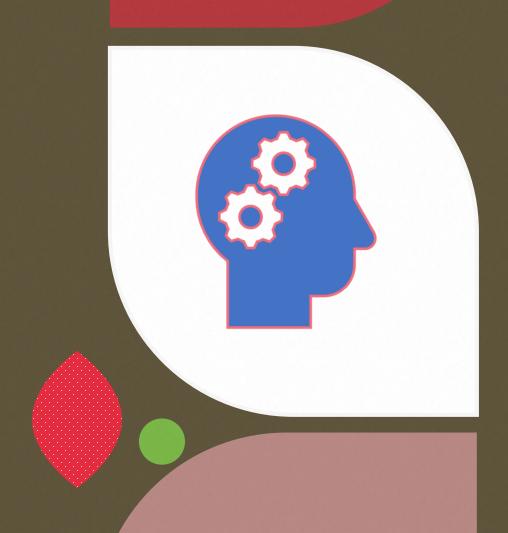
### Directing

- Leadership & Direction
- Motivation



### Controlling

- Process & Standards
- Review & Evaluation
- Corrective Action



#### Decision making

Defining Defining the problem

Searching Searching for alternative courses of action

**Evaluating** Evaluating the alternatives

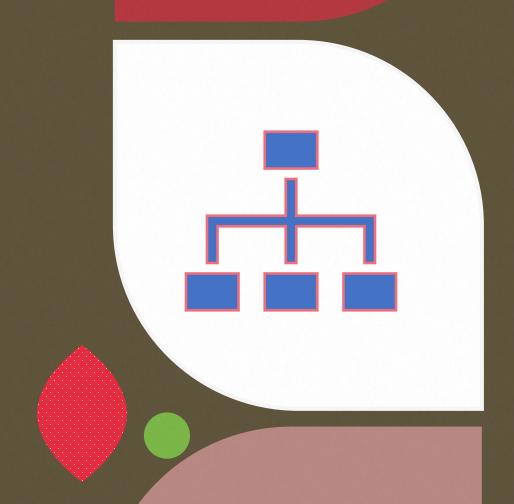
Selecting Selecting one alternative

### Levels of Management



#### Top level Management

• It consists of board of directors, chief executive or managing director. The top management is the ultimate source of authority, and it manages goals and policies for an enterprise. It devotes more time on planning and coordinating functions



#### Role of Top-Level Management

- Top management lays down the objectives and broad policies of the enterprise.
- It issues necessary instructions for preparation of department budgets, procedures, schedules etc.
- It prepares strategic plans & policies for the enterprise.
- It appoints the executive for middle level i.e. departmental managers.

• It controls & coordinates the activities of all the departments.

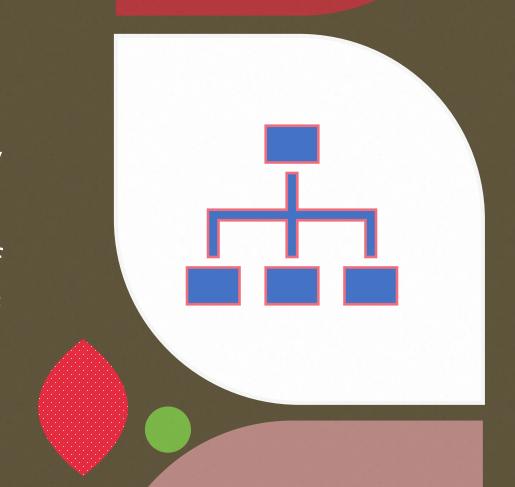
• It is also responsible for maintaining a contact with the outside world.

• It provides guidance and direction.

• The top management is also responsible towards the shareholders for the performance of the enterprise

#### Middle level Managers

• The branch managers and departmental managers constitute middle level. They are responsible to the top management for the functioning of their department. They devote more time to organizational and directional functions. In small organization, there is only one layer of middle level of management but in big enterprises, there may be senior and junior middle level management.



#### Role of Middle level Managers

- They execute the plans of the organization in accordance with the policies and directives of the top management.
- They make plans for the sub-units of the organization.
- They participate in employment & training of lower-level management.
- They interpret and explain policies from top level management to lower level.
- They are responsible for coordinating the activities within the division or department.
- It also sends important reports and other important data to top level management.
- They evaluate performance of junior managers.
- They are also responsible for inspiring lower-level managers towards better performance.

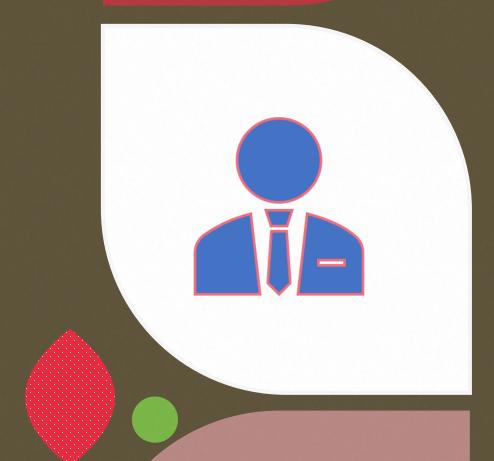
#### Lower-level Management

• Lower level is also known as supervisory / operative level of management. It consists of supervisors, foreman, section officers, superintendent etc. According to R.C. Davis, "Supervisory management refers to those executives whose work has to be largely with personal oversight and direction of operative employees". In other words, they are concerned with direction and controlling function of management.

#### Role of Lower-level Management

- Assigning of jobs and tasks to various workers.
- They guide and instruct workers for day-to-day activities.
- They are responsible for the quality as well as quantity of production.
- They are also entrusted with the responsibility of maintaining good relation in the organization.
- They communicate workers problems, suggestions, and recommendatory appeals etc. to the higher level and higher-level goals and objectives to the workers.
- They help to solve the grievances of the workers.

- They supervise & guide the sub-ordinates.
- They are responsible for providing training to the workers.
- They arrange necessary materials, machines, tools etc for getting the things done.
- They prepare periodical reports about the performance of the workers.
- They ensure discipline in the enterprise.
- They motivate workers.
- They are the image builders of the enterprise because they are in direct contact with the workers.



#### Scientific management theory.

• In 1911 Frederick Winslow Taylor published his monograph "The Principles of Scientific Management." Taylor argued that flaws in a given work process could be scientifically solved through improved management methods and that the best way to increase labor productivity was to optimize the manner in which the work was done. Taylor's methods for improving worker productivity can still be seen today at companies, in modern militaries, and even in the world of professional sports.

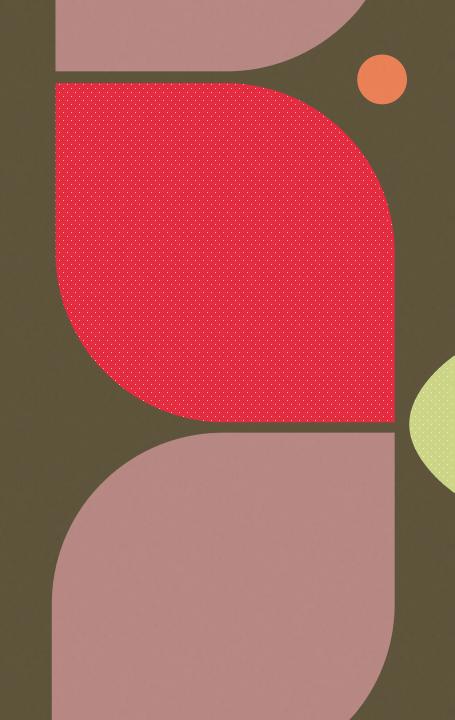
 Scientific management, also often known as Taylorism, is a management theory first advocated by Federick W. Taylor. It uses scientific methods to analyze the most efficient production process in order to increase productivity. Taylor's scientific management theory argued it was the job of workplace managers to develop the proper production system for achieving economic efficiency. Although the terms "scientific management" and "Taylorism" are commonly used interchangeably, it would be more precise to say that Taylorism was the first form of scientific management.



# 4 Principles of Scientific Management

Frederick Taylor devised the following four scientific management principles that are still relevant to this day:

1. Select methods based on science, not "rule of thumb." - Rather than allowing each individual worker the freedom to use their own "rule of thumb" method to complete a task, you should instead use the scientific method to determine the "one best way" to do the job.



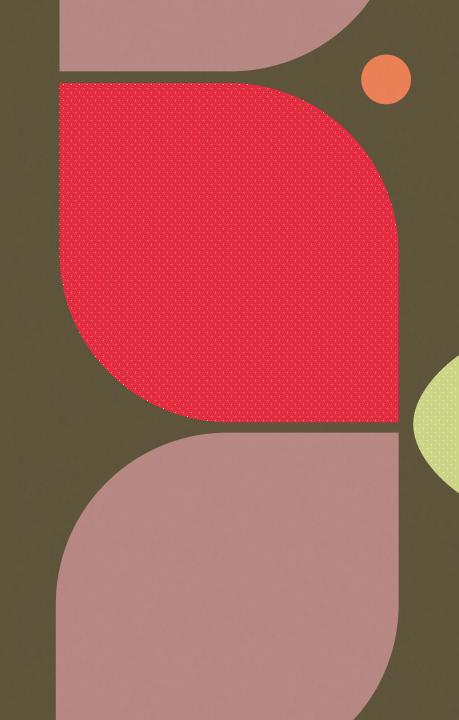
- 2. Assign workers jobs based on their aptitudes.
- Instead of randomly assigning workers to any open job, assess which ones are most capable of each specific job and train them to work at peak efficiency.

### 3. Monitor worker performance

•Assess your workers' efficiency and provide additional instruction when necessary to guarantee they are working productively.

4.Properly divide the workload between managers and workers.

Managers should plan and train, while workers should implement what they've been trained to do.



Fayol's Administrative Management Theory

• His theory is based on how the management should interact with the employees. Fayol's theory provided a broad and analytical framework of the process of administration which overcomes the drawback of Taylor's management theory. Henry Fayol (1841-1925) was a French mining engineer, managing director and an industrialist who is known for his contribution towards management science in his work "Administration Industrielle et Generale" in the year 1916 A.D. The book was later translated as "General and Industrial Management" in the year 1929 A.D.

 Fayol's theory which is still considered applicable and reliable is used in managing the personnel in any organization. Fayol's Administrative management can be understood by the following four sections: (Mind tool editorial team)



# Division of Industrial Activities

Henry Fayol observed the **organ**ization from a manager's point of view. So, he identified six major activities in which industrial activities can be divided. They are:

- **Technical Activities:** This activity is related to the production or manufacturing of goods and services.
- Commercial Activities: This activity is concerned about dealing with sales, purchase, and distribution of goods and services.

- Financial Activities: This activity is related to the creation of necessary capital and its optimum use for development and growth
- Accounting Activities: This activity is related to the recording of transactions and then preparing the financial statements.
- Managerial Activities:: This activity is considered with the elements of management which are planning, organizing, commanding, coordinating and controlling.
- Security Activities: This activity is related to the protection of people and property in an organization by providing safe working conditions, insurance policies, etc.

# Managerial Skills and Qualities

- Fayol has focused on the role of a manager. He believes that anyone cannot be a manager. A manager needs some skills and qualities to manage people and resources in an **organ**ization. The six managerial skills are:
- Physical Qualities:
- Mental Qualities:
- Educational Qualities:
- Moral Qualities
- Technical Qualities:
- Experience:

## Principles of Administrative Management

The 14 principles of management given by H. Fayol are particularly focused on the five management functions of an **organ**ization. These are the basic guidelines for the management of the **organ**ization as a whole.

1. Initiative: An initiative is the level of freedom that an organization should provide to the employee to carry out the plans without forcing them or ordering them. This is related to the creation of interest and willingness in the employees by motivating and satisfying the employees.

#### 2. Equity:

This principle implies that all the members of the **organ**ization should be treated equally. There should be no **bias**es and there should be an environment of kindness and justice

#### 3. Scalar Chain:

There should be a chain of superiors ranging from the top level of management to the lower level management based on the hierarchy level. The head of an **organ**ization is at the top of the chain. The communication flows from the top to the bottom through this chain of authority of superiors. However, there is no hard and fast rule regarding the process of communication through the scalar chain.

#### 4 Remuneration of Personnel:

There must be monetary as well as non-monetary remuneration to the employees based on their performance level. Fayol focuses more on non-monetary remuneration in which he believes will create bonding between the employee and the **organ**ization. So the remuneration must be fair, reasonable and satisfactory.

#### 5. Unity of Direction:

According to this principle, there should be only one manager under the guidance and plan of which the groups having the same goals and objectives should move forward. This principle suggests that in one department or section, the division should only get instruction from one head. This helps in coordinating the group activity to attain a single goal.

6.Discipline:

An employee should be obedient and respectful to the authority and the established rules and regulations of the **organ**ization. Clarity of rules, reward-punishment system, good supervision, etc. are some ways to maintain discipline. But it depends on the need and policies of the organization on how to maintain discipline.

#### 7. Division of Work:

This principle implies that the overall action of management should be divided into a compact job and employees should be allocated certain jobs viewing their interests and skills. This principle helps in specialization and helps to make the **work**ers more effective and efficient. Division of **work** is important at technical level as well as managerial level in an organization for smooth operation

8. Authority and Responsibility:
Authority is the right to give the command and make decisions.
Responsibility is the obligation of an employee to perform a certain designated task and be accountable to the supervisor.

There should be a balance between authority and responsibility. An employee must be given the amount of authority required to perform the given responsibility. Authority without responsibility will lead to waste of position and lack of utilization of power and responsibility without power will lead to poor utilization of human and another resource.

#### Unity of Command:

An employee must get orders from only one immediate supervisor. And the employee should be accountable to the immediate supervisor only. There should not be other supervisors to guide the employee. This will help to clear the confusion and will make the employee loyal to the activity.

• Subordination of Individual Interest to General Interest:
There are two types of interests. One is the interest of the individuals and the other is organizational interest. So this principle suggests that there must be harmony between these two interests. Organizational interest must be given more priority as doing good for the organization will bring rewards for the individuals.

#### Centralization:

This principle implies that the topmost level of authority should be centralized to top-level management. There should be the delegation of power to the subordinate but the power to make the important decisions in the **organ**ization should remain with the top-level management.

#### • Order:

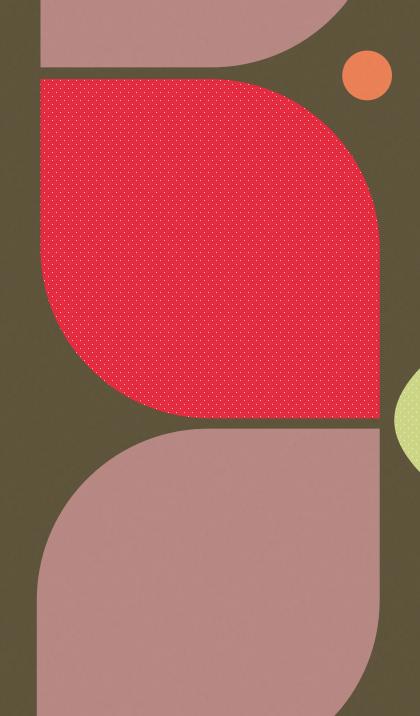
This principle states that every material and manpower should be given a proper place in the **organ**ization. The right man for the right job is essential in the smooth running of an **organ**ization. So, management must identify tasks and put them in proper order with the limited human and other resources.

#### Stability of Tenure:

Any employee can **work** to the fullest if they have a secured job. So, an employee must be provided with job security which will help them to be efficient. This will also benefit the **organ**ization as it lowers the labor turnover and reduces the cost of recruiting and training new employees.

#### • Esprit de Corps:

This principle implies that "union is strength" and team spirit. So, the **organ**ization must **integrate** all its actions towards a single goal and objective. If the action is not unified then they cannot achieve their desired objectives. So there must be a unified team contribution in harmony and cooperation which is always greater than the aggregate of individual performances



# MOTIVATION

According to Steer & Porter, "Motivation is the force that energizes behavior, gives direction to behavior and underlies the tendency to persist."

# Nature of Motivation

Motivation is internal to man.

A single motive can cause different behavior.

Different motives may result in single behavior.

Motives come and go.

Motives interact with the environment.

Motivation is an ongoing process.

Motivation is a complicated process.

# Importance of Motivation

To keep employees happy.

To instill human treatment.

To increase work efficiency

To improve communication in between managers and workers

To combine ability with willingness

To reduce the rate of labor turnover

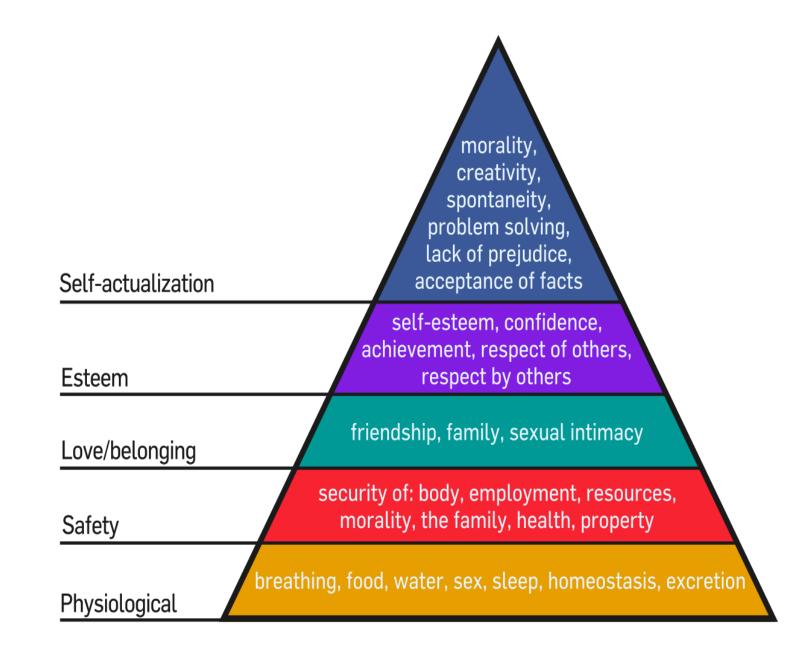
To develop the leadership quality

# Maslow's Hierarchy of Needs

Abraham Maslow formulated one of the most popular theories of human motivation. Maslow's theory is based on the following propositions.

- The needs are arranged in a hierarchy of importance, ranging from the lowest need to highest need level
- All needs are never fully satisfied
- Once a need is well satisfied, it no longer motivates behavior
- The needs are interdependent and overlapping

Maslow's theory of motivation explains five levels of needs.





#### HERZBERG TWO-FACTOR THEORY OF MOTIVATION

• He first published his theory in 1959 in a book entitled 'The Motivation to Work' and put forward a two-factor content theory which is often referred to as a two-need system.

#### Introduction to the Theory:

• Fredrick Herzberg and his associates developed the MOTIVATION HYGIENE THEORY, commonly known as the two factor theory, in the late 1950s and early 1960s. Herzberg and his associates conducted a research based on the interview of 200 engineers and accountants who looked for 11 different firms in Pittsburgh area, U.S.A.

# Motivational Factors:

#### • 1. Hygiene Factors:

Hygiene factors or the maintenance factors do not motivate people, they simply prevent dissatisfaction and maintain status quo. Such factors do not produce positive results but prevent negative results. If these factors are not there it will lead to job dissatisfaction. These are not motivators, as they maintain a zero level of motivation or in other words, these factors do not provide any satisfaction but eliminate dissatisfaction.

# These factors are related to the context of the job and are called dis-satisfiers. These include:

Job security

Salary

Working condition

Status

Company policies

Supervision

Interpersonal supervision

Fringe benefits



# Motivational Factors:

• These factors are **intrinsic** in nature and are related to the job. The motivational factors have a positive effect on job satisfaction and often result in an increase in total output. Thus, these factors have a **positive influence** on morale, satisfaction, efficiency and productivity.

These set of aspects are related to the content of the job and are called satisfiers. These include:

Achievement

Recognition

Work itself

Responsibility

Advancement

Personal growth and development

# MOTIVATORS

Satisfaction No Satisfaction

HYGIENE FACTORS

No Dissatisfaction Dissatisfaction



#### **ERG THEORY**

- Clayton P. Alderfer

- A theory of human motivation that focuses on three groups of needs that form a hierarchy:
  - existence needs
  - relatedness needs
  - growth needs
- The theory suggests that these needs change their position in the hierarchy as circumstances change.



#### **EXISTENCE NEEDS**

- This group of needs is concerned with providing the basic requirements for material existence, such as physiological and safety needs.
- In a work context this need is satisfied by money earned in a job for the purchase of food, shelter, clothing, etc.

# RELATEDNESS NEEDS



- This group of needs focuses on the desire to establish and maintain interpersonal relationships with family, friends, co-workers and employers.
- Interact with other people, receive public recognition, and feel secure around people.
- The amount of time most people spend at work this need is normally satisfied to some extent by their relationships with colleagues and managers.

### **GROWTH NEEDS**

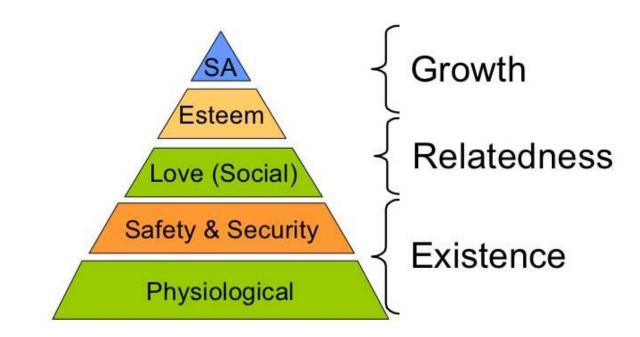


- These needs are about the fulfilment of desires to be creative, productive and to complete meaningful tasks.
- These needs are all about by personal development. In a work context a person's job, career, or profession can provide a significant satisfaction of growth needs.

 Clayton Alderfer extended and simplified Maslow's Hierarchy into a shorter set of three needs: Existence, Relatedness and Growth (hence 'ERG'). Unlike Maslow, he did not see these as being a hierarchy, but being more of a continuum.

#### **Alderfer's ERG Theory**





# Organization

Organization is the structural framework of duties and responsibilities required of personnel in performing various functions with a view to achieve business goals through organization.

• Louis Allen, "Organization is the process of identifying and grouping work to be performed, defining and delegating responsibility and authority and establishing relationships for the purpose of enabling people to work most effectively together in accomplishing objectives." In the words of Allen, organization is an instrument for achieving organizational goals. The work of each and every person is defined and authority and responsibility is fixed for accomplishing the same.

• L.H. Haney, "Organisation is a harmonious adjustment of specialised parts for accomplishment of some common purpose or purposes". Organisation is the adjustment of various activities for the attainment of common goals.

• George Terry, "Organising is the establishing of effective authority relationships among selected work, persons, and work places in order for the group to work together efficiently". According to Terry organisation is the creation of relationship among persons and work so that it may be carried on in a better and efficient way.

# Steps of organizational development

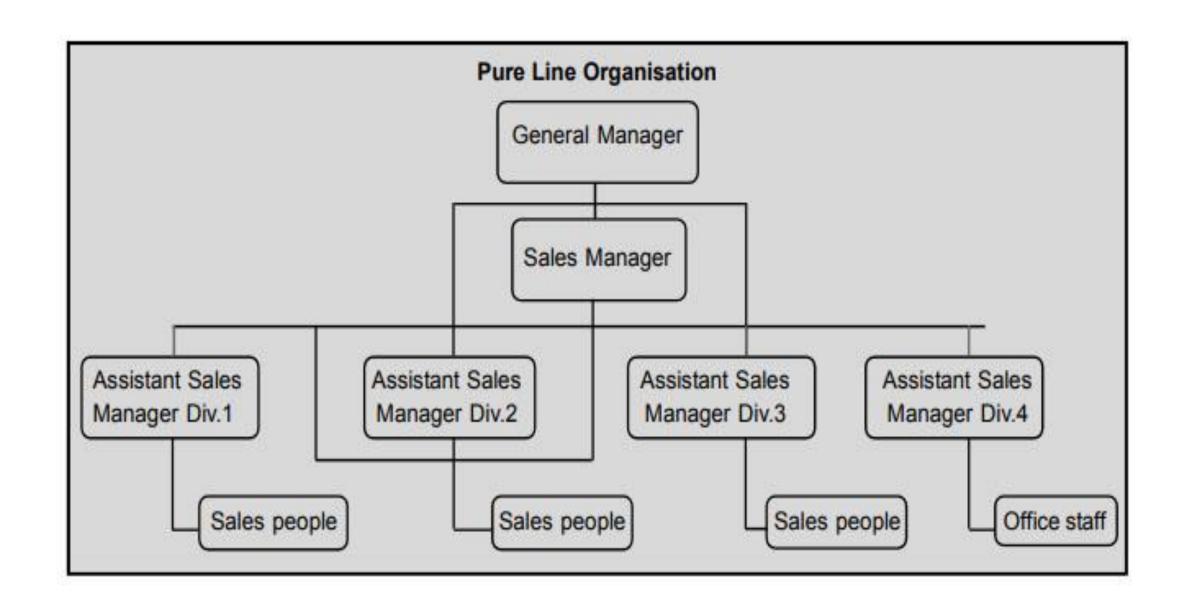
- Clarify Purpose
- Define initial Roles
- Assign Roles to People
- Capture Projects
- Establish Tactical and Governance Work Processes

## Types of organizational structure

- Line type organization
- Line and staff organizational structure
- Function type organization structure
- Project type organizational structure

#### Line organizational structure

- Line organization is the simplest framework for the whole administrative organization. Line organization approaches the vertical flow of the relationship. In line organization, authority flows from the top to the bottom. It is also known as the chain of command or scalar principle.
- Line organization structure is the oldest and simplest form of organization. In these organizations, a supervisor exercises direct supervision over a subordinate. Also, authority flows from the top-most person in the organization to the person in the lowest rung. This type of an organization is also called a military organization or a scalar-type organization.



# Advantages of a Line Organization

- Simple to work
- Economical and effective. It also allows quick decisions and efficient coordination.
- Conforms to the scalar principle of organization. Further, it promotes the unity of command.
- In a line organization, the responsibility for the performance of tasks is fixed upon definite individuals. Therefore, there is accountability of delegated tasks.
- There is excellent discipline in a line organization due to unified control and undivided loyalties.

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- The overall cost of running the organization is low due to the non-involvement of staff personnel.
- It is a stable form of organization.

# Disadvantages of a Line Organization

- A line organization can suffer from a lack of specialization. This is because each department manager is concerned only with the activities of his own department. Therefore, employees are skilled in tasks pertaining to their departments alone.
- These organizations can overburden a keyman or a few key-men to the extent of their breaking point. Also, in the absence of a staff aid, if a strong man seizes the organization, he can run it arbitrarily. Such arbitrary power can lead to a considerable damage to the organization.

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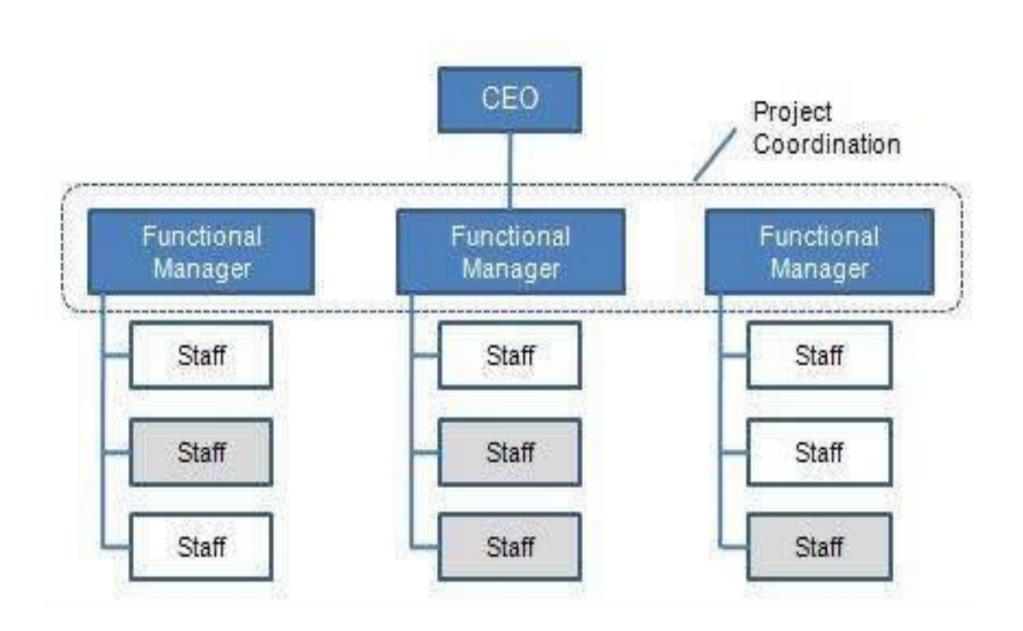
- Such organizations usually suffer from a lack of expert advice. If the line manager has trouble making a decision, there is no expert staff that he can turn to.
- A line organization is usually rigid and inflexible. In fact, such organizations maintain discipline so rigorously that they can rarely change.
- These organizations are based on the autocratic system of management.
- The division of work is not based on any scientific plan but on the

#### Continue...

- It might stop progress and prevent the unit to work effectively.
- Such organizations might also encourage nepotism or favoritism based on relationship or friendship.

## Functional organizational structure

- In a functional organization structure, the entire organization is divided into smaller groups or departments based on specialized functions.
- So for example in such an arrangement there will be a finance department, an IT department, marketing department etc. This allows for greater cohesiveness and efficiency in the work of the employees.



# **Advantages of Functional Organizational Structure**

- The executive or the team leader has the knowledge and experience of that particular field. For example, the person heading the IT department will have the education and skill necessary to shoulder this responsibility and successfully run his team.
- Because the employee has expertise in that particular field, the work is more efficient and precise. There are fewer mistakes. This also helps with the motivation of the employees of the company.

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- Since all team members come from similar backgrounds it allows them to share ideas and come up with solutions. There is a sharing of knowledge, which is always beneficial.
- The employees also having a clear idea of the hierarchy of the firm.
   They need not report or answer to several managers.
- Also, the employees feel secure in their work. They see that their work and efforts is not going unnoticed. This sense of security helps them perform better.

# Disadvantages of Functional Organizational Structure

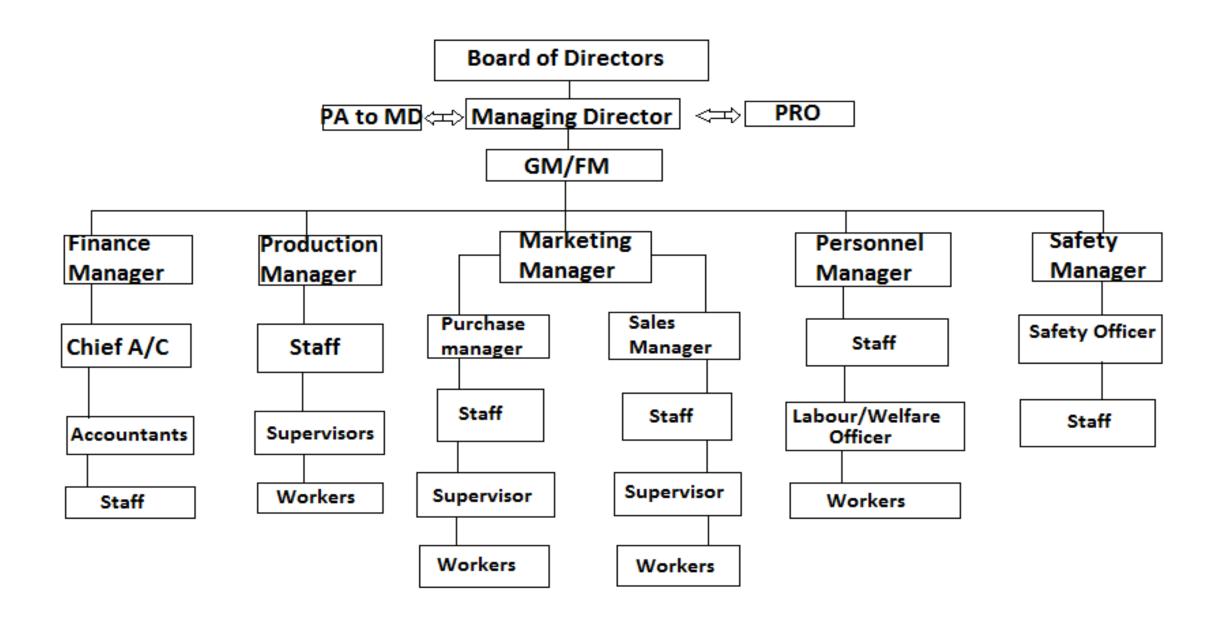
- The work can be quite one dimensional. After a while, the employees may start feeling monotony or boredom. The lack of new challenges can make them unenthusiastic for the job at hand.
- In this structure, the manager must take care of the appraisal system. If the correct approach is not taken then conflicts may arise between the employees regarding promotions or appraisals.
- Also, this form of organization requires a high degree of specialization which is difficult to establish

#### Continue .....

- If there is a necessary change of personnel it can disrupt the whole system and its balance. Also, it is quite a rigid structure, not leaving a lot of scope for adaptation.
- In Functional Organizational Structure, the employees never gain any knowledge or skills outside their own department. This can cause difficulties in inter-departmental communication.

#### Line and staff organizational structure

- Line and staff organization is a modification of line organization, and it is more complex than line organization. According to this administrative organization, specialized and supportive activities are attached to the line of command by appointing staff supervisors and staff specialists who are attached to the line authority.
- The power of command always remains with the line executives and staff supervisors guide, advice and council the line executives. Personal Secretary to the Managing Director is a staff official.



#### **Features of Line and Staff Organization**

- Line and Staff Organization is a compromise of line organization. It is more complex than line concern.
- Division of work and specialization takes place in line and staff organization.
- The whole organization is divided into different functional areas to which staff specialists are attached.
- Efficiency can be achieved through the features of specialization.
- There are two lines of authority which flow at one time in a concern :
  - 1. Line Authority
  - 2. Staff Authority
- Power of command remains with the line executive, and staff serves only as counselors.

#### **Merits of Line and Staff Organization**

- Relief to line of executives- In a line and staff organization, the advice and counseling which is provided to the line executives divides the work between the two. The line executive can concentrate on the execution of plans and they get relieved of dividing their attention to many areas.
- Expert advice- The line and staff organization facilitates expert advice to the line executive at the time of need. The planning and investigation which is related to different matters can be done by the staff specialist and line officers can concentrate on execution of plans.

- Benefit of Specialization- Line and staff through division of whole concern into two
  types of authority divides the enterprise into parts and functional areas. This way
  every officer or official can concentrate in its own area.
- **Better co-ordination-** Line and staff organization through specialization is able to provide better decision making and concentration remains in few hands. This feature helps in bringing co-ordination in work as every official is concentrating in their own area.
- Benefits of Research and Development- Through the advice of specialized staff, the line executives, the line executives get time to execute plans by taking productive decisions which are helpful for a concern. This gives a wide scope to the line executive to bring innovations and go for research work in those areas. This is possible due to the presence of staff specialists.

- Training- Due to the presence of staff specialists and their expert advice serves as ground for training to line officials. Line executives can give due concentration to their decision making. This in itself is a training ground for them.
- Balanced decisions- The factor of specialization which is achieved by line staff helps in bringing co-ordination. This relationship automatically ends up the line official to take better and balanced decision.
- **Unity of action** Unity of action is a result of unified control. Control and its effectivity take place when co-ordination is present in the concern. In the line and staff authority all the officials have got independence to make decisions. This serves as effective control in the whole enterprise.

#### **Demerits of Line and Staff Organization**

- Lack of understanding- In a line and staff organization, there are two authority flowing at one time. This results in the confusion between the two. As a result, the workers are not able to understand as to who is their commanding authority. Hence the problem of understanding can be a hurdle in effective running.
- Lack of sound advice- The line official get used to the expertise advice of the staff. At times the staff specialist also provide wrong decisions which the line executive have to consider. This can affect the efficient running of the enterprise.

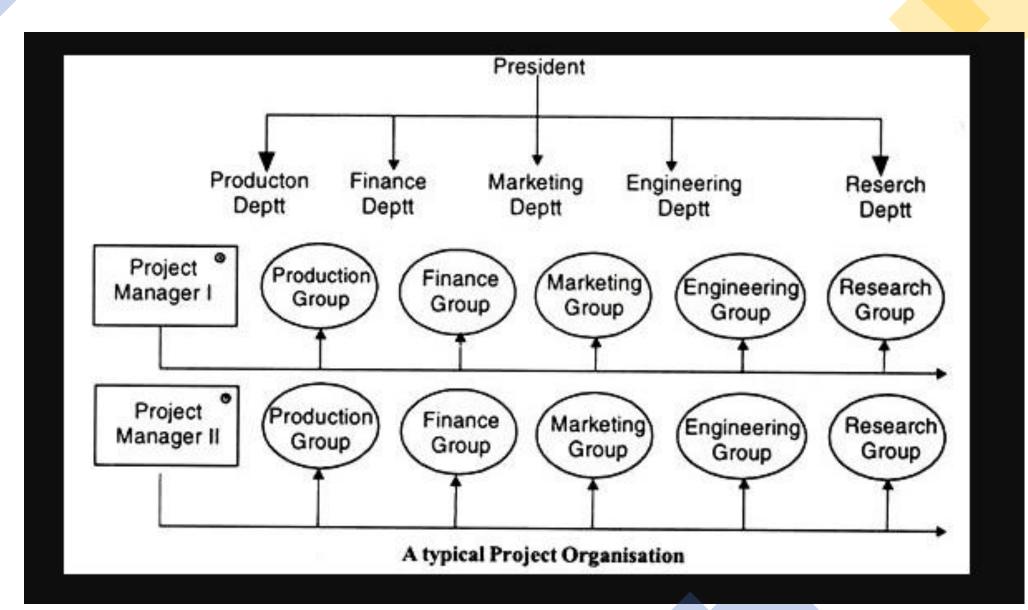
- Line and staff conflicts- Line and staff are two authorities which are flowing at the same time. The factors of designations, status influence sentiments which are related to their relation, can pose a distress on the minds of the employees. This leads to minimizing of co-ordination which hampers a concern's working.
- Costly- In line and staff concern, the concerns have to maintain the high remuneration of staff specialist. This proves to be costly for a concern with limited finance.
- Assumption of authority- The power of concern is with the line official but the staff dislikes it as they are the one more in mental work.
- Staff steals the show- In a line and staff concern, the higher returns are considered to be a product of staff advice and counseling. The line officials feel dissatisfied and a feeling of distress enters a concern. The satisfaction of line officials is very important for effective results.

## **Project Organisation**

- A project organisation is one, in which a project structure is created as a separate unit or division within a permanent functional structure; drawing specialists and workers from various functional departments who work under the overall leadership, control and co-ordination of a project manager to complete projects of a technical and costly nature.
- According to **George R. Terry** "A project organisation is a preferred means whenever a well defined project must be dealt with or the task is bigger than anything, the organisation is accustomed to."

#### Function of project organization

- Under a project organisation, a team of specialists and workers is drawn from various functional areas, out of the permanent functional structure of the organisation to work on a project. The project manager may taker assistance from outside sources also.
- The project team functions under the overall control and leadership of the project manager. During the continuance of the project, functional managers renounce their authority over subordinates (comprised in the project team) in favour of the project manager.



#### Merits of the project organization

- Concentrated attention on project work:
- Advantages of team specialization:
- Ability to cope with environmental influences:
- Timely completion of the project:

## limitations of a projectorganisation:

- limitations of a project-organisation:
- Unclearly defined relationship:
- Feeling of insecurity among personnel:
- Duplication of efforts:

## LEADERSHIP

"Leadership is the process of influencing others to work towards the attainment of specific goals."

-Pearce & Robbinson,

# Importance of Leadership

Task support

Psychological Support

Development of individuals

Building the team spirit

Motivation

Provides feedback

Facilitates change

Maintains discipline

#### STYLES OF LEADERSHIP

### Autocratic leadership-

- Autocratic leadership, also known as authoritarian leadership, is a leadership style characterized by individual control over all decisions and little input from group members.
- Autocratic leaders typically make choices based on their own ideas and judgments and rarely accept advice from followers
- Autocratic leadership involves absolute, authoritarian control over a group.

### Characteristics of Autocratic Leadership

- Little or no input from group members
- Leaders make the decisions
- Group leaders dictate all the work methods and processes
- Group members are rarely trusted with decisions or important tasks

### Benefits of Autocratic Leadership

- Autocratic leadership can be beneficial in some instances, such as when decisions need to be made quickly without consulting with a large group of people. Some projects require strong leadership in order to get things accomplished quickly and efficiently.
- In situations that are particularly successful, such as during military conflicts, group members may prefer an autocratic style. It allows members of the group to focus on performing specific tasks without worrying about making complex decisions..

#### Downsides of Autocratic Leadership

- While autocratic leadership can be beneficial at times, there are also many instances where this leadership style can be problematic. People who abuse an autocratic leadership style are often viewed as bossy, controlling, and dictatorial, which can lead to resentment among group members.
- Because autocratic leaders make decisions without consulting the group, people in the group may dislike that they are unable to contribute ideas.

#### Democratic leadership

- Democratic leadership, also known as participative leadership, is a type of leadership style in which members of the group take a more participative role in the decision-making process.
- Researchers have found that this learning style is usually one of the most effective and lead to higher productivity, better contributions from group members, and increased group morale.

#### Characteristics of Democratic Leadership

- Group members are encouraged to share ideas and opinions, even though the leader retains the final say over decisions.
- Members of the group feel more engaged in the process.
- Creativity is encouraged and rewarded.

#### Benefits of Democratic Leadership

- Because group members are encouraged to share their thoughts, democratic leadership can leader to better ideas and more creative solutions to problems.
- Group members also feel more involved and committed to projects, making them more likely to care about the end results.
- Research on leadership styles has also shown that democratic leadership leads to higher productivity among group members

#### Downsides of Democratic Leadership

- While democratic leadership has been described as the most effective leadership style, it does have some potential downsides. In situations where roles are unclear or time is of the essence, democratic leadership can lead to communication failures and uncompleted projects. In some cases, group members may not have the necessary knowledge or expertise to make quality contributions to the decision-making process.
- Democratic leadership works best in situations where group members are skilled and eager to share their knowledge. It is also important to have plenty of time to allow people to contribute develop a plan and then vote on the best course of action.

#### Laissez-faire leadership

• Laissez-faire leadership, also known as delegative leadership, is a type of leadership style in which leaders are hands-off and allow group members to make the decisions. Researchers have found that this is generally the leadership style that leads to the lowest productivity among group members

# Laissez-faire leadership is characterized by:

- Very little guidance from leaders
- Complete freedom for followers to make decisions
- Leaders provide the tools and resources needed
- Group members are expected to solve problems on their own

# Benefits of Laissez-faire leadership

- Laissez-faire leadership can be effective in situations where group members are highly skilled, motivated and capable of working on their own.
- While the conventional term for this style is 'laissez-faire' and implies a completely hands-off approach, many leaders still remain open and available to group members for consultation and feedback.

#### Downsides of Laissez-Faire Leadership

• Laissez-faire leadership is not ideal in situations where group members lack the knowledge or experience, they need to complete tasks and make decisions.

• Some people are not good at setting their own deadlines, managing their own projects and solving problems on their own. In such situations, projects can go off-track, and deadlines can be missed.

# Departmentation

Departmentation is the foundation of organization structure, that is, organization structure depends upon departmentation.
 Departmentation means division of work into smaller units and their re-grouping into bigger units (departments) on the basis of similarity of features.

#### Importance of Departmentation

- Organisation structure
- Flexibility
- Specialisation
- Sharing of resources
- Co-ordination
- Control
- Efficiency
- Scope for growth and diversification
- Responsibility
- Development of managers

#### Centralization

Centralization is said to be a process where the concentration of decision making is in a few hands. All the important decision and actions at the lower level, all subjects and actions at the lower level are subject to the approval of top management. According to Allen, "Centralization" is the systematic and consistent reservation of authority at central points in the organization.

#### The implication of centralization

- 1. Reservation of decision-making power at top level.
- 2. Reservation of operating authority with the middle level managers.
- 3. Reservation of operation at lower level at the directions of the top level.

#### **Decentralization**

• **Decentralization** is a systematic delegation of authority at all **levels of management** and in all the organization. In a decentralization concern, authority
in retained by the top management for taking major decisions and framing policies
concerning the whole concern. Rest of the authority may be delegated to the middle
level and lower level of management.

#### **Implications of Decentralization**

- There is less burden on the Chief Executive as in the case of centralization.
- In decentralization, the subordinates get a chance to decide and act independently which develops skills and capabilities. This way the organization is able to process reserve of talents in it.
- In decentralization, diversification and horizontal can be easily implanted.
- In decentralization, concern diversification of activities can place effectively since there is more scope for creating new departments.

- In decentralization structure, operations can be coordinated at divisional level which is not possible in the centralization set up.
- In the case of decentralization structure, there is greater motivation and morale of the employees since they get more independence to act and decide.

#### Authority

• Authority means a formal, institutional or legal power in a particular job, function or position that empowers the holder of that job, function or position to successfully perform his task.

#### Characteristics of Authority

- Exercise of authority drives staff of the organization to perform the tasks and responsibility assigned to them
- Only person holding authority can make decisions
- Exercise of authority may sometimes have element of subjectivity

#### Responsibility

• The term responsibility has been interpreted in two different ways. Some writers define as a duty while others call it an obligation. In a more comprehensive sense responsibility can be defined as an obligation of a subordinate to perform the duties assigned to him.

### characteristics of the responsibility:

- The essence of responsibility is obligation to perform the assigned duty or task.
- Responsibility arises from superior subordinate relationships. When a superior assigns some work to a subordinate, the latter becomes responsible for performance of tasks.
- Responsibility has no meaning except as applied to a promotion. A building or machine etc. cannot be held responsible.

- Responsibility may be a continuing obligation or specific obligation.
- Responsibility is a personal attribute and it cannot be deleted.
- Responsibility is a concomitant of authority, therefore authority and responsibility should be equal.

#### Span of control

• Span of Control can be defined as the total number of direct subordinates that a manager can control or manage. The number of subordinates managed by a manager varies depending on the complexity of the work.

#### Factor affecting span of control

- Type of work to be managed
- Geographical distribution
- Administrative tasks performed by a manager
- The capability of the Manager
- Capabilities of employees
- Responsibility for other tasks
- Manager's value addition
- Type of business

# Type of business / Proprietorship

#### Proprietorship

• There are different types of businesses to choose from when forming a company, each with its own legal structure and rules.

#### Your company's form will affect:

- How you are taxed
- Your legal liability
- Costs of formation
- Operational costs

# There are 4 main types of business organization

- sole proprietorship
- Partnership
- Corporation
- Limited Liability Company

#### Sole Proprietorship

• The simplest and most common form of business ownership, sole proprietorship is a business owned and run by someone for their own benefit. The business' existence is entirely dependent on the owner's decisions, so when the owner dies, so does the business.

#### Advantages of sole proprietorship:

- All profits are subject to the owner
- There is very little regulation for proprietorships
- Owners have total flexibility when running the business
- Very few requirements for starting—often only a business license

#### Disadvantages:

- Owner is 100% liable for business debts.
- Equity is limited to the owner's personal resources.
- Ownership of proprietorship is difficult to transfer.
- No distinction between personal and business income.

#### Partnership

- These come in two types: general and limited. In general partnerships, both owners invest their money, property, labor, etc. to the business and are both 100% liable for business debts. In other words, even if you invest a little into a general partnership, you are still potentially responsible for all its debt. General partnerships do not require a formal agreement—partnerships can be verbal or even implied between the two business owners.
- Limited partnerships require a formal agreement between the partners. They must also file a certificate of partnership with the state. Limited partnerships allow partners to limit their own liability for business debts according to their portion of ownership or investment.

#### Advantages of partnerships:

- Shared resources provides more capital for the business
- Each partner shares the total profits of the company
- Similar flexibility and simple design of a proprietorship
- Inexpensive to establish a business partnership, formal or informal

#### Disadvantages:

- Each partner is 100% responsible for debts and losses.
- Selling the business is difficult—requires finding new partner.
- Partnership ends when any partner decides to end it.

#### Corporation

 Corporations are, for tax purposes, separate entities and are considered a legal person. This means, among other things, that the profits generated by a corporation are taxed as the "personal income" of the company. Then, any income distributed to the shareholders as dividends or profits are taxed again as the personal income of the owners.

#### Advantages of a corporation:

- Limits liability of the owner to debts or losses
- Profits and losses belong to the corporation
- Can be transferred to new owners fairly easily
- Personal assets cannot be seized to pay for business debts

#### Disadvantages:

- Corporate operations are costly
- Establishing a corporation is costly
- Start a corporate business requires complex paperwork
- With some exceptions, corporate income is taxed twice

#### Limited Liability Company (LLC)

 Similar to a limited partnership, an LLC provides owners with limited liability while providing some of the income advantages of a partnership. Essentially, the advantages of partnerships and corporations are combined in an LLC, mitigating some of the disadvantages of each.

#### Advantages of an LLC:

- Limits liability to the company owners for debts or losses
- The profits of the LLC are shared by the owners without doubletaxation

#### Disadvantages:

- Ownership is limited by certain state laws
- Agreements must be comprehensive and complex
- Beginning an LLC has high costs due to legal and filing fees

#### Joint stock company

- A joint stock company is an organisation which is owned jointly by all its shareholders.
   Here, all the stakeholders have a specific portion of stock owned, usually displayed as a share.
- Each joint stock company share is transferable, and if the company is public, then its shares are marketed on registered stock exchanges. Private joint stock company shares can be transferred from one party to another party. However, the transfer is limited by agreement and family members.

#### Features of Joint Stock Company

- Separate Legal Entity A joint stock company is an individual legal entity, apart from the persons involved. It can own assets and can because it is an entity it can sue or can be sued. Whereas a partnership or a sole proprietor, it has no such legal existence apart from the person involved in it. So the members of the joint stock company are not liable to the company and are not dependent on each other for business activities.
- **Perpetual** Once a firm is born, it can only be dissolved by the functioning of law. So, company life is not affected even if its member keeps changing.

- Number of Members For a public limited company, there can be an unlimited number of members but minimum being seven. For a private limited company, only two members. In general, a partnership firm cannot have more than 10 members in one business.
- Limited Liability In this type of company, the liability of the company's shareholders is limited. However, no member can liquidate the personal assets to pay the debts of a firm.
- Transferable share A company's shareholder without consulting can transfer his shares to others. Whereas, in a partnership firm without any approval of other partners, a partner cannot move his share.
- Incorporation For a firm to be accepted as an individual legal entity, it has to be incorporated. So, it is compulsory to register a firm under a joint stock company.

#### Co-operative society

- There are different types of business organisations, one such form is of cooperative society. Cooperative societies are formed with the aim of helping their members. This type of business organisation is formed mainly by weaker sections of the society in order to prevent any type of exploitation from the economically stronger sections of the society.
- Cooperative societies need to be registered under the Cooperative Societies Act, 1912 in order to function as a legal entity. Members of the society raise the capital within themselves.

#### **Characteristics of Cooperative Society**

- **Voluntary Association**: The membership of a cooperative society is voluntary in nature, i.e it is as per the choice of people. Any individual can join the cooperative society and can also exit the membership as per his/her desire. The member needs to serve a notice before deciding to end the association with the society.
- Open Membership: The membership of a cooperative society is open to all i.e, membership is open to all, irrespective of their caste, creed and religion.

- Registration: A cooperative society needs to get registered in order to be considered
  a legal entity. After registration it can enter into contracts and acquire property in its
  name.
- Limited liability: The members of a cooperative society will have limited liability. The liability is limited to the amount of capital contributed by the member.
- Democratic Character: Cooperative society forms a managing committee and elected members have the power to vote and choose among themselves. The managing committee is formed so as to take important decisions regarding the operations of the society.
- Service Motive: The formation of a cooperative society is for the welfare of the weaker sections of the community. If the cooperative society earns profit it will be shared among the members as dividend.

• Under state control: In order to safeguard the interests of society members, the cooperative society is under the control and supervision of the state government. The society has to maintain accounts, which will be audited by an independent auditor.

## Government Sector/ PSU (Public sector undertaking)

Public Sector Undertakings are a major part of the Indian economy that comprises
public services and enterprises and it provides services that benefit the entire society.
This article gives details on the objectives of setting up PSU's, their role in the
upliftment of society, problems, and reforms undertaken by them.

#### **Public Sector – 3 Major Classifications**

The public sector can be classified into:-

- 1. Departmental Undertaking Directly managed by concerned ministry or department. (e.g. Railways, Posts, etc.)
- 2.Non-Departmental Undertaking PSU (e.g. HPCL, IOCL, etc.)
- 3. Financial Institution (e.g. SBI, UTI, LIC, etc.)
- The rationale behind the establishment of PSU's was Industrialisation and the establishment of Capital Goods Industries and Basic Industries. The organizations that are not a part of the public sector are termed as private sector that works to raise profit for the organization.

#### **Objectives of Setting up Public Sector Unit (PSU)**

- 1. To create an industrial base in the country
- 2. To generate a better quality of employment
- 3. To develop basic infrastructure in the country
- 4.To provide resources to the government
- **5.To promote exports and reduce imports**
- 6.To reduce inequalities and accelerate the economic growth and development of a country.

#### Role of Public Sector in the Upliftment of Society

- 1. Public sector & capital formation This sector has been a major reason for the generation of capital in the Indian economy. A large amount of the capital comes from the Public sector Units in India
- 2. Creation of Employment opportunities Public sector has brought about a major change in the employment sector in the country. They provide a lot of opportunities under various domains and thus helps in uplifting the Indian economy and society.
- 3. Development of Different Regions The establishment of major factories and plants has boosted the socio-economic development of different regions across the country. Inhabitants of the region are impacted positively concerning the availability of facilities like electricity, water supply, township, etc.
- **4. Upliftment of Research and Development** Public sector units have been investing a lot to introduce advanced technology, automated equipment, and instruments. This investment would result in the overall cost of production.

### INTRODUCTION TO HUMAN RESOURCE MANAGEMENT

- Human resources management (HRM) is a management function concerned with hiring, motivating and maintaining people in an organization. It focuses on people in organizations.
- Human resource management is designing management systems to ensure that human talent is used effectively and efficiently to accomplish organizational goals.
- According to D. A. Decenzo and P.Robbins, "Human resource management is a process consisting of four function:- acquisition, development, motivation and maintenance of human resources.

#### Nature of HRM

- HRM Involves the Application of Management Functions and Principles. The functions and principles are applied to acquiring, developing, maintaining and providing remuneration to employees in organization.
- Decision Relating to Employees must be Integrated. Decisions on different aspects of employees must be consistent with other human resource (HR) decisions.
- Decisions Made Influence the Effectiveness of an Organization. Effectiveness of an organization will result in betterment of services to customers in the form of high-quality products supplied at reasonable costs.
- HRM Functions are not Confined to Business Establishments Only but applicable to nonbusiness organizations such as education, health care, recreation and like. HRM refers to a set of programmes, functions and activities designed and carried out in order to maximize both employee as well as organizational effectiveness.

# Scope of HRM

- Human Resource Planning
- Design of the Organization and Job
- Selection and Staffing
- Training and Development
- Organizational Development
- Compensation and Benefits
- Employee Assistance
- Union/Labour Relations
- Personnel Research and Information System

# Objectives of HRM

- Societal Objectives: seek to ensure that the organization becomes socially responsible to the needs and challenges of the society while minimizing the negative impact of such demands upon the organization.
- Organizational Objectives: it recognizes the role of HRM in bringing about organizational effectiveness. It makes sure that HRM is not a standalone department, but rather a means to assist the organization with its primary objectives.
- Personnel Objectives: it is to assist employees in achieving their personal goals, at least as far as these goals enhance the individual's contribution to the organization. Personal objectives of employees must be met if they are to be maintained, retained and motivated. Otherwise employee performance and satisfaction may decline giving rise to employee turnover.

#### Functions of Human Resource Management

#### **Managerial Function**

- Planning
- Organising
- Directing
- coordinating
- Controlling

# Staffing/Operating Function

- Acquisition & Absorption
- Development & Utilisation
- Maintenance & Retention
- Motivation & Empowerment

# SELECTION

Human resource selection is the process of choosing qualified individuals who are available to fill positions in an organization. In the ideal personnel situation, selection involves choosing the best applicant to fill a position. Selection is the process of choosing people by obtaining and assessing information about the applicants with a view to matching these with the job requirements.

• According to Keith Davis, "Selection is the process by which an organization chooses from a list of screened applicants, the person or persons who best meet the selection criteria for the position available."

#### Selection Procedure

• The selection procedure consists of a series of steps. Each step must be successfully cleared before the applicant proceeds to the next. The selection process is a series of successive hurdles or barriers which an applicant must cross. These hurdles are designed to eliminate an unqualified candidate at any point in the selection process. Thus, this technique is called "Successive Hurdles Technique".

# Steps in Selection Process

- Application Pool:
- Preliminary Screening and Interview:
- Application Blank or Application Form (Biographical Data, Educational Attainment, Work Experience, Salary and Benefits, Other Items)
- Selection Tests:
- Interview:
- Background Investigation:
- Physical Examination:
- Approval by Appropriate Authority:
- Final Employment Decision:
- Evaluation:

#### **ORIENTATION**

After an employee has been recruited, he is provided with basic background information about the employer, working conditions and the information necessary to perform his job satisfactorily. The new employee's initial orientation helps him perform better by providing him information of the company rules, and practices.

• **Orientation** is a systematic and planned introduction of employees to their jobs, their coworkers and the organization. It is otherwise known as induction.

# Purpose of Orientation

- To feel like home atmosphere
- To reduce the anxiety level of new employee
- For familiarization
- For providing the information about working condition, rules, regulation etc.

#### Types of Orientation Programme

- Formal or Informal
- •Individual or Collective
- Serial or Disjunctive
- •Investiture or Divestiture

#### Requisites of an Effective orientation Program

- Prepare for new employees
- Determine information new employees want to know
- Determine how to present the information
- Completion of paperwork

#### TRAINING AND DEVELOPMENT

• Training is a process that tries to improve skills or add to the existing level of knowledge so that the employee is better equipped to do his present job or to mould him to be fit for a higher job involving higher responsibilities. It bridges the gap between what the employee has & what the job demands.

Training refers to the process of imparting specific skill whereas Development refers to the learning opportunities designed to help employees grow.

# Objective of Training

- **Individual Objectives** Help employees in achieving their personal goals, which in turn, enhances the individual contribution to an organization.
- Organizational Objectives Assist the organization with its primary objective by bringing individual effectiveness.
- **Functional Objectives** Maintain the department's contribution at a level suitable to the organization's needs.
- Societal Objectives ensure that an organization is ethically and socially responsible to the needs and challenges of the society.

### Impotence of Training

- Improves Morale of Employees
- Less Supervision
- Fewer Accidents
- Chances of Promotion
- Increased Productivity

# **Types of Employee Training**

- On-the-job
- Off-the-job

### The four techniques for on-the-job training are:

- 1- Coaching is one of the training methods, which is considered as a corrective method for inadequate performance
- 2- Mentoring is an ongoing relationship that is developed between a senior and junior employee. Mentoring provides guidance and clear understanding of how the organization goes to achieve its vision and mission to the junior employee.
- 3- Job Rotation Training -It provides the employees with opportunities to broaden the horizon of knowledge, skills, and abilities by working in different departments, business units, functions, and countries. Identification of Knowledge, skills, and attitudes (KSAs) required.
- 4- Job Instruction Technique (JIT) uses a strategy with focus on knowledge (factual and procedural), skills and attitudes development. Steps of JIT Plan, Present, Trail, Follow-up

#### OFF THE JOB TRAINING

- SENSITIVITY TRAINING
- TRANSACTIONAL ANALYSIS
- STRAIGHT LECTURES/ LECTURES
- SIMULATION EXERCISES