# **CHAPTER -1**

# NATURE AND SIGNIFICANCE OF MANAGEMENT

Management is an activity which is necessary whenever there is group of people working in an organization. Management assembles and coordinates various resources such as men, materials, money, methods and machines in the best manner for the achievement of organizational objectives. Management is essential for all types of organizations irrespective of their size, form and nature of activity. Management is necessary so that individuals make their best contribution towards group objectives.

## **Definitions**

"ToManage is to forecast and plan, to organize, to command to coordinate and to control"

- Hendry Fayol

"Management is the process of working with and through others to effectively achieve organizational objectives by effectively using limited resources in the changing environment". – Kreither

"Management is getting things done through the effort of other people"

- Lawrance .A. Appley

"Management is principally the task of planning, coordinating motivating and controlling the efforts of others towards a specific objective"

- James .L. Lundy

"Management is the art of getting thework donethrough and with the people in formally organized groups"

- Koontz and O' Donnell

Thus management is an art of getting things done through others utilizing scare resources beneficially for the organisations

## **CONCEPT OF MANAGEMENT**

Management is the process of getting things done with the aim of achieving goal effectively and efficiently. Management has to see that tasks are completed and goals are achieved ( effectiveness) with the least amount of resources at a minimum cost( efficiency).

## **Effectiveness Verses Efficiency**

The two terms effectiveness and efficiency are different but they are interrelated. Effectiveness and efficiency are two sides of the same coin. Effectiveness means doing the right task, completing activities and achieving goals. ie. End results. Whereas efficiency means doing the task correctly and minimum cost. It involved cost benefit analysis.

Example(1): If we take two workers, the first worker produces 100 item in a day without waste and the second worker produces 120 items in a day with high level of wastage and defective quality. In this case second worker is more effective but the first worker is more efficient.

Example (2): the Tata motors targeted a production of 1000 nano cars in a month. The management achieved this target by using more resources than actually neede, In this case, it is clear that the management is effective but not efficient.

| Sl. no | Effectiveness                             | Efficiency   |
|--------|---|--|
| 1      | It refers to the completion of the task   | It refers to the completion of task correctly with |
|        | on time                                   | the minimum cost and wastage                       |
| 2      | It is related with the achievement of the | It is related with utilizing the minimum resources |
|        | end results                               | and getting the maximum benefits                   |
| 3      | Producing targeted production on time     | Producing targeted production at its minimum       |
|        | is the sign of effectiveness              | cost is the sign of efficiency                     |

Usually high efficiency means high effectiveness. High efficiency without effectiveness is not desirable. Poor management is due to both inefficiency and ineffectiveness.

## **Characteristics / Features of Management**

- **1.** Management is a goal oriented process:- Management always tries to attain the goals and objectives of the organization. It is the duty of management to make maximum results with minimum efforts Management unites the efforts of different individuals in the organization towards attainment of goal.
- **2.** <u>Management is all pervasive (Management is universal):</u> Management is an essential element of every organized activity irrespective of the size otype of activity. The basic function of management is same in every group activity. Thus management is a pervasive activity
- Management is multidimensional:-Management is a complex activity which has three dimensions

- (a) <u>Management of work</u>:- All organizations exist for the performance of some work. Eg: In afactory a product is manufactured, in a hospital, a patient is treated. Management translate this work in terms of goals to be achieved and assigns to achieve it.
- (b) <u>Management of people</u>:- Human resources are the most valuable assets to any organization. Despite all improvements in technology' getting work done through people" is still major task for manger. The task of manager is to make people work towards the achievement of organizational goal.
- (c) <u>Management of operations:</u> Every organization provides some basic product or service in order to survive. This requires a a production process of transforming input material and the technology into the desired output for consumption.
- 4. Management is a continuous / ongoing process:-Management is a process because it comprises a series of interrelated functions such as planning, organizing, staffing, directing and controlling that leads to the achievement of desired objectives.it is a continuous process and it does not stop anywhere. These functions are performed again and again so long as the business continuous.
- **5.** Management is a group activity:- All enterprises consists of a group of people with different needs. Management is a group activity. It reconciles personal interest with organizational objectives. This leads to better coordination among the human resources, which in turn improve the productivity of the organization.
- **6.** <u>Management is a dynamic function:</u>-Principles of management are dynamic and not static. This is because management adapts itself to the environmental changes and introduces innovations.
- **7.** Management is an intangible force:- Management is invisible and intangible. Its presence is visualized by the result of its efforts like high productivity, orderliness, achieved target etc. however one can see only the mangers and not the management because management is what manger does.

## **OBJECTIVES OF MANAGEMENT**

In all organizations, there are different objectives. Objectives can be classified into

- (a) Organisational objectives (b) Social Objectives (c) personal objectives
- 1. Organisational objectives

Management is responsible for setting and achieving objectives for the organization. The main objectives of any organization should be utilize human and material resources to the maximum possible advantages. ie. Fulfill the economic objectives of the business. These are survival, profit and growth. Organizational objectives, include

- (a) Reasonable profit so as to give a fair rate of return on the capital invested in the business
- (b) Survival and solvency of the business, ie. Its continuity
- (c) Growth and expansion of the enterprise
- (d) Improving goodwill or reputation of the enterprise
- 2. Social Objectives:

The management is not only a representative of the owners and workers but is also responsible to the various groups outside the organization. It is expected to fulfill the objective of the society are

- (a) Quality goods and services at fair prices to consumers
- (b) Honest and prompt payment of taxes to the government
- (c) Conservation of environment and natural resources
- (d) Giving employment opportunities to the weaker sections of the society
- (e) Provide basic amenities like schools or hospitals etc. to employees and general public.

### 3. Personal Objectives (Individual Objectives)

An organization consists of several persons who have their own objectives. These objectives are

- (a) Fair remuneration for work performed
- (b) Reasonable working conditions
- (c) Opportunities for training, development and career growth.
- (d) Participation in Management and prosperity of the enterprise
- (e) Reasonable security of service

Management has to reconcile personal goals with organizational objectives for harmony in the organisation

## **INPORTANCE OF MANGEMENT**

Management is indispensible for the successful functioning of every organisation. Management is the force that holds everything in an organisation together and that sets everything in motion. According to Peter F Drucker"management is dynamic life giving element in an organisation." The existence of management ensures proper functioning andrunning of an organisation.

The need and importance of management can be justified on the following heads:

- Achievement of group goals:- Management is required not for itself but for achieving goals of the organization. Management create teamwork and coordination in the group.
   The task of the manager is to give a common direction to the individual effort in achieving the overall goal of the organization.
- **2.** Management increases efficiency: Only through right management we can economically and efficiently utalise our scarce resources for the benefit of the organization.
- **3.** <u>Management creates a dynamic organization:</u>

  Organization to face challenges, by making plans and policy decisions. It analyses the environment properly and takes right decisions at the right time.

### 4. Management helps in achieving personal objectives

A manager motivates and leads his team in such a manner that individual members are able to achieve their personal goals such as team spirit, co-operation, commitment while contributing to overall organizational objectives.

### 5. Management helps in the development of society

Well managed organisations create quality products and services for the country and create numerous employment opportunities. Such organisationsfacilitate economic development and industrial growth of the country.

## **NATURE OF MANAGEMENT**

The nature of management is studied in terms of its dynamic function. There has been arguments on whether management is a science, art, or both or a profession. A close examination into the features of management clearly establishes the fact that the management has the qualities and characteristics of a science, an art and a profession.

### Management as an art

Art is the skillful and personal application of a acquired knowledge for the achievement of desired result.. It can be acquired through study observation and experience. The main features of art are the following

- a) Practical knowledge
- b) Personal skill
- c) Situational
- d) Concrete result
- e) Creativity / result oriented approach
- f) Perfection through practice

Management is an art can be seen from the following facts

- 1. <u>Practical Knowledge:-</u> The manager has to perform many valuable functions Such as planning, organizing, staffing, controlling, coordinating etc., which nee practical knowledge and experience. Managers who have practical knowledge can forecast future events and prepare plan accordingly.
- 2. <u>Personal skill:-</u>Management is a personal and individual skill. Every manager has his own style in performing the managerial functions. Since existence of managerial function depends on the personal skill of the manager, one can treat management as an art.
- **3.** <u>Situational:</u> Management deals with people who behave differently in different situations. Management has to perform their function on the basis of the particular situation and so managerial functions can be called as an art.
- **4.** <u>Concrete results:-</u> Art seeks to achieve concrete result. Management as an art is also directed towards the accomplishment of desired goals.
- **5.** <u>Creativity:</u>-Art is basically a creative activity that is an artist produces something which existed never beforeLikewise management is also creative. A manager efficiently combines

- the factors of production to create goods and services. le. Essence of management is getting things done.
- Perfection through practice: Practice makes man perfect. Like other art managerial skill can be improved through constant and dedicated hardworking. A person become an efficient manager after long practice

In short management is the art of getting things done through others because management requires theoretical knowledge and personal skill. Like any other art management is also creative.

### Management as a science

Science is the systematized body of knowledge which establishes relationship between causes and their effects. The basic features of science are as follows

- Science is the systematized body of knowledge
- It should establish cause and effect relationship
- This knowledge is obtained through observation and experimentation
- Its principles should have universal application

We can apply these features to management. Management is a body of knowledge. This knowledge is systematic, as it integrates various concepts and principles. The principles of management establish cause and effect relationship between different variables.eg. Lack of balance between authority and responsibility will cause management to become ineffective. Management principles are applicable to all types of organisations irrespective of their nature, size, location etc. Management principles are developed afterthorough scientific enquiry. Similarly validity of the management principles can be tested the help of experiments.

Human behavior is depending upon socio economic situations, which go on changing. Absolute measurement is possible in science, but it is impossible in management. Human relations and behavior cannot be predicted. So management is an inexact science (soft science) or social science

## Management is both art and science

Management is a combination of an organized body of knowledge and skillful application of this knowledge. Management can be rightly regarded as both science and art. It is a science with a systematized body of knowledge and universal application. But management can never be an exact science .management is an art as it requires specific skill to be applied as a situation demands. Thus management is a mixture of art and science. Science and art in management are not mutually exclusive but complement each other.

## **MANAGEMENT AS A PROFESSION**

A profession is an occupation backed by specialized knowledge and training acquired after a formal study. The essential features of a profession are as follows

- 1. Specialized body of knowledge or technique
- 2. New entry is restricted by prescribing rigid rules and standard of qualification
- 3. Establishment of a formal organization to regulate the members
- 4. There should be an ethical code or standard of conduct which should be followed by the members
- 5. Priority of service to the society over economic condition.

In order to ensure that management is a profession these features need to be matched with those of management.

- Specialised body of knowledge or technique:- Management is a specialized body of knowledge. It has its own theories, principles and techniques. Management is taught in many universities and colleges. Moreover there is a a number of books and journals in this subject.
- 2. <u>Restricted Entry</u>:-The entry to a profession is restricted through an examination or through acquiring an educational degree. But there is no restriction on anyone being designated or appointed as manager in any business enterprises. Even though professional knowledge and training considered as a desirable qualification., it has not been strictly met in management.
- **3.** <u>Professional association:-</u>In every profession there is a statutory association or institution which regulate entry in the profession and grant certificate of practice. Management also formed associations for the regular exchange of knowledge and experience.

  Eg.All India Management Association (AIMA)
- **4.** Ethical code of conduct.:-Every profession must have a code of conduct which specifies the norms and professional ethics for its members. The AIMA has framed a code of conduct for managers. The code requires the managers to fulfill their social and moral obligations.
- **5.** <u>Service motive</u>:- The primary object of a profession is providing services to the society. Managers recongnise their social responsibilities towards customers, workers and other groups.

## **CONCEPT OF MANAGEMENT**

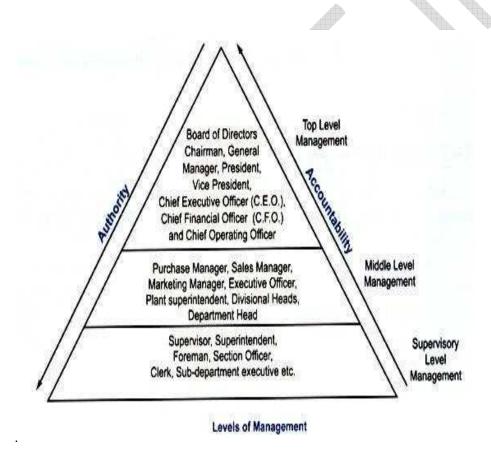
The term management can be understood differently. Thus the concept of management is interpreted in four different way

MANAGEMENT AS A DISCILINE: Management is a specialized body of knowledge.
 It has its own theories, principles and techniques. Management is taught in many universities and colleges. Moreover there is a a number of books and journals in this subject.

- 2. **MANAGEMENT AS APROCESS**: It is a process because it comprises a series of functions such as planning, organizing, staffing, directing and controlling.
- 3. MANAGEMENT AS A GROUP: the term management refers to the group of managerial personnel of an organization
- 4. **MANGEMENT AS AN ACTIVITY**: It is a human activity undertaken to plan, organize, direct and control the efforts of all these working in the enterprise

## **LEVELS OF MANAGEMENT**

In every organization there is a chain of supervisors and subordinators from highest to the lowest. This chain is known as chain of command or management hierarchy. The chain consists of managerial post like chief executive, departmental head, and supervisors. This series of management positions from top to bottom is referred to as levels of management as shown in the below figure.



**TOP MANAGEMENT** 

Top management is also known as higher level management or administrative management. Board of directors, managing director, general manager, President, Vice president etc. comes under this category. This level of management establishes policies, plans and objectives

### **Functions of Top management are**

- Determine the objectives of the organization
- Frame policies and plans
- Evaluate and control overall performance
- Coordinating the activities different departments
- It builds and maintain relations with the outside public
- They appoint the executives for the middle level.

#### MIDDLE LEVEL MANAGEMENT

Middle level management consists of heads of various departments (eg. Production manager, sales manager, personnel manager etc.), , superintendents branch managers etc. They are the link between the top management and lower management .Middle management is also known as executory management as they execute the plans of the top management.

### **Functions of Middle Management**

- Receive order and instructions from the top level and pass on tower level.
- Interpret and implement the policies and plans of top management
- Supervise direct and control the lower level managers
- Planning the activities to be carried out their respective departments
- Evaluate the performance of the departmental employees and taking remedial actions if necessary.
- Reporting to the top level management
- Recruit and select the subordinates and provide them leadership and motivation.

## LOWER/SUPERVISORY /FIRST LEVEL/OPERATIONAL/BOTTOM LEVEL MANAGEMENT

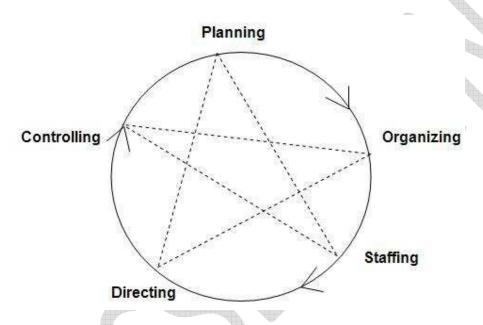
This level includes foremen, supervisors, finance and account officers, sales officers etc. This level of managers is directly related with the routine functions of the organization. They are responsible for the quality and quantity of work and completion in time.

### **Functions of Lower level Management:**

- Acting as alink between middle level managers and workers
- Planning ofday to day work
- Assign duties to workers and supervise them
- Ensure safety of workers and equipment and solve their problems
- Maintain good personal relations and discipline in the unit
- Sending reports to higher authorities
- Evaluating operating performance
- Taking corrective actions, whenever necessary

## **FUNCTIONS OF MANAGEMENT**

The activities which a manger performs are called functions of management. According to Koontz andO'Donnel Management functions are Planning, organizing, staffing, directing and Controlling. The scope and Nature of These Function differ from manager to manger and enterprise to enterprise.



## 1.PLANNING

Planning is deciding in advance what to do when to do, how to do and e=who to do it and how result are to be evaluated. Planning is a process of thinking before doing. Planning is deciding in the present what to do in the future. A plan is a future course of action. Planning bridges the gap between where we are and where we want to go.

### 2.ORGANISING

Organising function refers to identification and grouping of activities to be undertaken and assigning them to different departments. It also involves creating job positions at various levels of the organization. It is the process of establishing relationships among the members of the enterprise. The relationship is created in terms of authority and responsibility.

### 3.STAFFING

Staffing is concerned with placing the right person for the right job at the right time. This is also known as human resource function. And the department which performs the staffing function is known as personnel department.

" the staffing function of management pertains to recruitment, selection, training, development and appraisal of personnel"

### 4.DIRECTING

Direction means activating human resources towards attainment of the objectives. It is called management in action. Direction 11involves supervising, communicating and providing leadership to the subordinates and motivating them to achieve organizational objectives.

### **5.CONTROLLING**

Controlling is the process of measuring the actual performance of the organization with predetermined plans and taking corrective action. The process of controlling involves the following steps

- Determination of standards of performance
- Measurement of performance
- Comparison of performance with standards
- Take corrective actions in necessary.

## COORDINATION

Coordination is the orderly arrangement of dissimilar groups of activities to attain the common goals of business. Coordination is regarded as the essence of the management and not a separate function. Coordination is the force that binds all the other functions of management. It is the achievement of orderly group efforts and unity of action to in the pursuit of a common purpose.

#### **Definition:**

"Itharmonises, synchronises and unifies individual efforts for better action and betterment of business objectives" - Henry Fayol

### **Element of coordination**

There are three element s of coordination. They are Integration, Balancing and Timing

 Integration:- Integrating function develops unity and harmony among the various departments and persons in an organization. This will results in better performance in the organization.

- 2. <u>Balancing:</u>- It means supplementing the activities , efforts and jobs of one department with that of another. It implies creating a balance between the resources of different departments and individuals.
- 3. <u>Timing:</u>- timing is the process of scheduling the operations and arranging the activities of different sections in a specific order so as to complete it within a time schedule.

# Nature / characteristics of coordination

- Coordination integrate group effort:- Coordination is needed when there is group effort
  is involved and that group efforts are moving towards the fulfillment of organizational
  objectives.
- **2.Coordination ensures unity of action**.:- Coordination acts as the binding force between departments and ensure that all action is aimed at achieving the goal of the organization. The heart of coordination is unity of efforts.
- **3.Coordination is a continuous process:-** Coordination is not onetime function but a continuous process. It begins at the planning stage and continues till controlling.
- **4.Coordination is all pervasive function:**-Coordination is required at all levels of management in all departments of an organization
- 5. Coordination is the responsibility of all managers.

Coordination is the function of every manger in the organization. Top Management coordinate their subordinates work to achieve organizational objectives. Middle level management coordinate with both top level and lower level managers. Lower level managers coordinates the activities of workers to ensure that works proceeds according to plans.

**6.Coordination is a deliberate function**: A manger has to coordinate the efforts of different people in a conscious and deliberate manner.

## **IMPORTANCE OF COORDINATION**

Coordination is the essence of management. Without coordination management is meaningless. For an organization to effectively and efficiently achieve its objective, coordination is required. Like a thread in a garland coordination is a part of all management functions. Coordination harmonises the activities of different departments. Coordination is the byproduct of good management. Its importance can be high lightened through the following terms

- 1. **Growth in size:-** As an organization grows in size, the number of employees also increases. All individuals differ in their habit of work, background, approaches to situations, relations to others. So it becomes quite essential to integrate their personal goals with organizational goals to smooth functioning of organization.
- **2. Functional differentiation:**-In an organization there may be separate departments of production ,finance, marketing and human resources . All these departments may have their own policies , objectives, strategies etc. So there may arise conflict between them. Therefore coordination is essential to link the activities of various departments.
- **3. Specialisation:**-In modern business organization, there is high degree of specialization arising out of the complexities of modern technology and diversification. So there requires some mechanism to coordinate the efforts of various specialists in an organization.

## COORDINATION AND CO - OPERATION

Co-operation refers to collective efforts on the part of the people working in an enterprise voluntarily for attaining a particular purpose. Coordination on the other hand is a deliberate synchronisation of the activities of the workers in an enterprise. For achieving coordination basically there must be co –operation among the members.

## **ADVANTAGES OF COORDINATION**

- 1. Create cordial atmosphere in the organization
- 2. Effective coordinating increase the efficiency of the organization
- 3. Coordination required at all functions of management such as planning, organizing, staffing, directing and controlling.
- 4. Coordination ensures unity and synchronization of group efforts
- 5. Coordination ensures co operation of all departments of the organization
- 6. It avoid overlapping and duplication of work

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# **CHAPTER -2**

# PRINCIPLES OF MANAGEMENT

#### PRINCIPLES OF MANAGEMENT- THE CONCEPT.

Every discipline has its own principles and management has its own principles. A Managerial principle is a broad and general guideline for decision making and behavior. Management principles are statement of fundamental truth. These principles serve as guidelines for decisions and actions of mangers.

Management principles are not as rigid as principles of pure science. They deal with human behavior and thus are to be applied creatively according to the demand of the situation.

Principle of management is differentfrom technique of the management. Principles are guidelines to take decisions whereas techniques are procedures or methods, which consist of a number of steps to be to be taken to attain the desired goal. Principles are differing from values. Principles are basic truth or guidelines for behavior. Values are general rules for behavior of individuals in society formed through common practice

## **EVOLUTION OF MANGEMENT PRINCIPLES**

The origin of management can be traced back to the days when man started living in group. With the development of management thought over the period of time, various approaches for management analysis has been developed. These approaches are known as schools of management thought. It may be divided into six distinctive phases.

- 1. Early perspectives (2.) Classical management theory (3) Neo classical- Human relations approach (4) Behavioral science approach (5) Management science approach (6) Modern management.
- **1.** <u>Early perspectives:-</u>The first known management ideas were recorded in 3000-4000 BC .In 4000 BC Egyptian rulers had practiced management ideas for constructing pyramids.
- 2. <u>Classical management Theory:</u> The classical theory incorporates three viewpoints 9a) Taylor's Scientific Management (b) Fayol's Administrative Principles and (c) Max weber's Ideal Bureaucracy. The classical theory laid emphasis on division of labour, specialization, span of control etc.

### 3. Neo Classical theory (Human Relations Approach)

The Human relations approach is concerned with the recognition of the importance of human elements in the organization. It reveals the importance and psychological factors determines the workers' productivity and satisfaction. The real inspiration from the movement came from Hawthorne Experiments done by Elton Mayo and his colleagues.

4. Behavioural Science Approach- (Organisational Humanism)

Behavioural science is an inter disciplinary approach and integrates the knowledge drawn from different disciplines for the study of human behavior. McGregor, Abraham Maslow, Herzberg are some of behavior scientists who made significant contribution to development of behavioral approach of management.

- **5.** <u>Management science/ operational Approach :-</u> It emphasizes research on operations and use of quantitative techniques to aid managers to take decisions
- **6.** <u>Modern management.</u>:-It sees modern organisations as complex systems and underlines contingency approach and use of modern techniques to solve organizational as well as human problems

## NATURE OF PRINCIPLES OF MANAGEMENT

Management principles are fundamental truth. They denote a cause and effect relationship. These principles are guidelines to thought and action. Important features of the principles are:-

<u>1 Universal applicability:</u>-Management principles are applicable to any type of organisations in any part of the world. They are applicable in all spheres of human activity- even if it is business or non-business

- **2.** <u>General Guidelines:</u>-The principles are guidelines to action. But it does not provide readymade solution to all managerial problems as real business situations are not alike. However general guidelines help to solve a given problem.
- **3.** Formed by practice and experimentation:

  The principles of management are formed by experience and collective wisdom of managers as well as experimentation
- **4.** <u>Flexible:</u> Management principles are elastic or flexible in nature. They are prepared to adapt to different situations and changing environment. In this sense they are dynamic also.
- 5. <u>Influencing human behaviour:</u> Management principles are formulated mainly to regulate and direct the human beings in an organization. They are supposed to influence human behaviour .so that people give their best to the organization.
- **6.** Cause and effect relationships:- The principles of Management are intended to establish relationship between cause and effect so that they can be used in similar situations in a large number of cases. The principles of management are less than perfect since they mainly apply to human behaviour.
- **7.** <u>Contingent ( Relativity):-</u>The application of principles of management is contingent or dependent upon the prevailing situation at a particular point of time.

Eg: The principles of Fair remuneration suggest that employee remuneration should be based on paying capacity of the employer and contribution made by the employee. Since the paying capacity of the employer and contribution of the employee keep on changing, employee remuneration should also change.

### IMPORTANACE/ SIGNIFICANCE OF MANGEMENT

Management principles derive their significance from their utility. Principles guide managers in taking and implementing decisions.

The following points highlight the importance of management principles

### 1. Providing managers withuseful insights into reality

The principles of management provide the managers with useful insights into real world situations. When a manager follows sound managerial principles, decisions based on them will be perfect and accurate.

2. Optimum utilization resources and effective administration:- Management principles help managers in taking proper decisions in proper time. It points out how time, money, materials and human efforts can be used economically to improve productivity.

By following certain principles like unity of command, scalar chain etc. managers can manage their respective area effectively. This removes confusion and ambiguity in the mind of employees.

**3.** <u>Scientific Decisions:</u>-Management decisions taken with the backing of management principles are free from bias and prejudice. They are based on the objective assessment of the situation

### 4. Meeting changing environment requirements:-

Management principles are highly flexible and therefore can be modified to meet changing requirements of environment. For eg: by following the principle of division of labour , managers are able to identify where and for what activity the technology has changed.

- **5.** <u>Fulfilling Social responsibility:</u> A business enterprise is an integral part of society. It has to supply quality products at reasonable price to the customers and fair wages to the employees. Proper understanding of management principles would enable the managers take realistic view of organizational situations and their social relevance.
- **6.** Management training, education and research:- Principles of management are at the core of management theory. As such these are used as a basis for management training, education and research

# TAYLOR'S SCIENTIFIC MANAGEMENT

\*\*\* F.W. Taylor was the first person to introduce scientific methods in the management process. F.W.Taylor was born in Philadelphia in 1856. He started his career as a mechanist and rose to the position of chief engineer of Midvale steel works. He published his studies through his entitled "a piece rate system "and "shop Management". His famous book "principles and methods of scientific management'was published in 1911. That is why; Taylor is regarded as father of scientific management."

## SCIENTIFIC MANAGEMENT- MEANING AND DEFINITION

Scientific management refersto the application of science to management practices. It involves the replacement of rule of thumb or trial and error method by scientific and systematic approach in decision making.

"Scientific management means knowing exactly what you want men to do and seeing that they do it in the best and cheapest way."

-Fredrick Winslow Taylor (F.W.Taylor)

# **Principles of Scientific management**

Taylor formulated the following principles for managing the organization scientifically

### 1. Science, Not rule of Thumb

The development of science for each element of man's work which will replace the old rule of thumb method. (trial and error method). The basic principle of scientific management is the application of scientific method in solving business problems. Through scientific analysis and investigation, the best method of doing a work can be developed.

## 2. Harmony, not Discard (close co ordination between management and workers)

Talyoremphasized that there should be complete harmony between the management and workers. Taylor believed that the basic interest of the workers and management are same ie. To get more. Management should share the gain of the company if any with the workers . Workers on their part should work hard with discipline and loyalty. both should be part of the family.

## 3. Co -operation, not individualism

There should be complete co- operation between the labour and the management instead of individualism. Competition should be replaced by co –operation. Both should realize that they need each other. This can be achieved through a change in mental attitude of workers and the management towards each other.

The responsibility of both the managers and the workers should be clearly defined. Planning and organizing the work should be the responsibility of managers. The execution of the planned work is the responsibility of workers.

### 4. Development of each and every person

Under scientific management right men are selected for right jobs. The procedure for selection of workers should be designed scientifically. Management is responsible for their scientific education and training. The management and the workers should try to achieve maximum output in the place of restricted output. This will be beneficial to both the parties.

## **Mental Revolution**

The basic idea behind the principles of scientific management is to change the mental attitudes of the workers and the management towards each other. Taylor called it 'mental revolution'.

Mental revolution has three implications

- (a) All efforts for increase in production
- (b) Creation of spirit of mutual trust and confidence
- (c) Developing a scientific attitude for solving problems

The management and workers should realize they require one another. Management should share a part of surplus with workers. Workers should perform their jobs with ultimate loyalty and discipline This attitude will be good for both of them and ensure the prosperity of the business.

# **Techniques of scientific management**

To bring scientific management into practice, Taylor suggested the following techniques

## 1. Functional foremanship

F.W.Taylor suggested that specialization should be introduced in the factory. He advocated 'Functional foremanship' for this purpose. Under this system planning and execution are separated from each other. According to this, eight supervisors are supervising the the same worker on eight different aspect of the work.

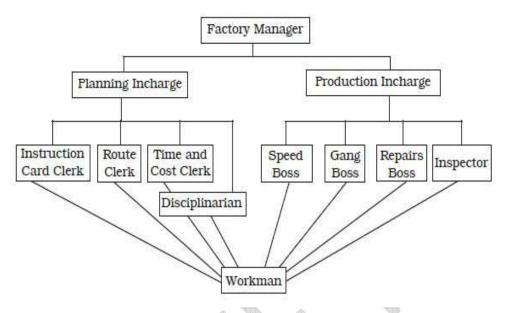
### The supervisors from planning / office levels are

- (a) Instruction Card Clerk:- To lay down the exact method of doing work
- (b). Route Clerk:- to lay down the sequences of operations and direct the workers to follow the same
- (c )**Time and cost clerk**:- To lay down the timetable for doing various jobs and to maintain the cost of the work.
- (d) Disciplinarian:-To enforce rules and regulations and maintain discipline among workers.

## The supervisors in the production/shop level are

- (a) Speed boss:- to determine appropriate speed to run the machines
- (b) Gang boss:- To assemble and set up machines and tools for a particular job.
- (c) Repair Boss:- To responsible for keeping the machines and equipment in working order.
- (d)Inspector:- To check the quality of the work done

Functional foremanship



# 2. Standardization and simplification of work

Standardisation involves setting up of standards in every phases of business operation. It includes uses of standard tools and equipment., methods or lines of product, working conditions etc. for maximization of output. Standardization would help to

- Reduce spoilage and wastage of materials
- Improve the quality of work
- Diminishing cost of production
- Reduce fatigue of workers

Simplification means elimination of superfluous sizes, varieties and dimensions. Its aim is to eliminate unnecessary diversity of products and thereby reduce costs.

## 3. Method study

The objective of method study is to find out one best way of doing a job. It helps a lot in handling, transporting and storage of raw materials and goods. The aim of this study is to maximize efficiency in the use of materials, machinery and other factors of production by improving work methods.. Taylor devised the concept of assembly line by using method study.

### 4. Motion study

Motion study involves close observation of movements of the workers and machines to perform a particular job. It helps to eliminate wasteful movements and to select the best method of doing a job.

# 5. Time study

It is the determination of time required to complete a particular study. Ie. Fixing standard time for each job. Time measuring devices are used for each element of work. The objective

of time study is to determine the number of workers to be employed, frame suitable incentive schemes and determine of labour costs.

## 6. Fatigue study

Continuous work causes physical or mental fatigue. Fatigue study tries to identify the amount and frequency of rest required in completing the work. Rest pauses and intervals should be scientifically determined.

Work study is the term used to embraces the techniques of method study, motion study, time study and fatigue study.

Work study = method study + motion study + Time study + Fatigue study

## 7. Differential Piece Rate System

Taylor suggested the use of a differential piece rate system in order to motivate workers to produce the maximum quantity. He wants to reward efficient workers. Under this system of wage payments two piece rates are laid down

- 1. A low piece rate for those who are below the standard
- 2. A high piece rate for those who are at or above the standard task

Standard task is determined after the time and motion study. Suppose a fair day's work is 10 units and two workers A and B produce 8 units and 12 units respectively. If the two piece rate re.1 and Rs.1.50 per unit. Worker A will getRs. 8 (8X1) and worker B will get Rs 18 (12 X1.50).

# **FAYOL'S PRINCIPLES OF MANAGEMENT**

Henri Fayol is popularly known as the Father of Modern general management. He was born in 1841. He started his career as a coal mine engineer in the French Coal mining company and later become the managing director of the company. In the year 1916, he published his well-known book 'Industrial and General administration' in French language.

Fayol was the first to identify four functions of management – planning, organizing, Directing and controlling although his version was bit different- Plan, organize, command, coordinate and control. According to Fayol, all activities of an industrial undertaking could be divided into: Technical, commercial, Financial, security, Accounting and managerial. he also suggested that qualities a manager must possess should be-physical, moral, education, knowledge and experience

Henri Fayol suggested 14 principles of management for the running the business effectively. They are as follows

**1.** <u>Division of work:-</u>Work is divided into small tasks/jobs .Division of work promotes specialization and avoid waste of time and effort By doing the same work again and again

as the worker gains speed and accuracy. This principle is applied to technical as well as managerial duties.

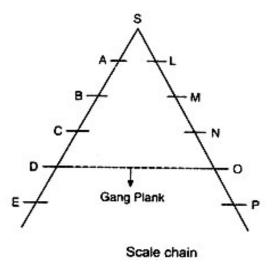
- 2. Authority and Responsibility:- Authority is the right to give orders to the subordinates and responsibility is the duty in which the subordinates are expected to perform. This principle states that authority and responsibility are co-existing. If the authority is granted to a person he should also be made responsible. Similarly if anybody is made responsible for a task, he should sufficient authority for getting the work done. Thus there must a paritybetween authority and responsibility.
- 3. <u>Discipline</u>: Discipline means getting obedience to rules and regulations of the organization it is essential for the smooth running of the business
- **4.** <u>Unity of Command:</u> This principle states the employee should receive order from one superior only. He should be accountable to only one superior only. He should be accountable to only one superior. The violation this principle will leads to the following consequences
  - (a) Overlapping of orders and instructions (b) difficulty in maintaining discipline and (c) permanent source of conflict.
- 5. <u>Unity of direction</u>:- This principle states that for a group activities having the same objective, there should be one head and one plan. It helps in the effective management of the organization. If the principle is not followed, there will be unnecessary duplication of efforts and wastage of resources.
- **6.** <u>Subordination of individual interest to general interest.</u> An organization is superior to individuals. This principle states that harmony of personal interest and common interest. When the individual interest and common interest differ it is the duty of the manger to reconcile them. Thus interest of group must always prevail over individual interest.

### 7. Remuneration of employees

Remuneration should be just and equitable. It should be satisfactory both to the employer and employee. Fair remuneration motivates and keeps up the morale of workers.

- 8. <u>Centralisationand Decentralisation</u>:- The concentration of decision making authority at the top level is called centralization where as it dispersal to the lower levels is known as decentralization. According to Fayol an organization should strive to achieve a balance between centralization and decentralization.
- 9. <u>Scalar chain</u>:- scalar chain refers to 'the chain of superiors ranking from the ultimate authority to the lowest level in the concern'. It states superior- subordinate relationship throughout the concern and is necessary to ensure unity of command and effective communication. This chain should not be violated in the normal course of formal communication.

However fayol is not in favour of very rigid scalar chain. He had suggested short circuiting the chain of command where emergency decisions are to be taken. This process of short circuiting is called **gang plank.** 



Suppose ' D ' wants to communicate ' O ' under scalar chain. D should first of all communicate with 'S ' through C, B, A and 'S' has to communicate with ' O ' through L M and N. In gang Plank 'D' allowed to communicate with 'O' directly. This is used in urgent situation only.

- 10. <u>Order:-</u> Order is the arrangement of things and persons in the proper place. According to Fayol, there should be a place for everything and every one. Ie. The right man and the right thing must be in the right place. Order, according to fayol has two components. (a) material order (b) social order. Arrangement of things is known as material order. Arrangement of people is known as social order.
- 11. <u>Equity:-</u> The principle suggest that a fair and just treatment is assured to people in similar positions. Eg. Worker doing the same job should have equal pay. It implies that superiors should be impartial while dealing with their subordinates. Favoritism and nepotism should be avoided.
- **12.** <u>Stability of tenure of personnel:-</u>According to Fayol a worker should not be moved from one job to another frequently. Time is necessary for employee to adapt his work and perform it effectively.. Frequent changes of personnel increases cost of selection and training.
- 13. <u>Initiative</u>:- according to this principle, subordinates should be given an opportunity to take initiative in making and executing the plans. It will increase the zeal and energy of employees and help them to be creative.
- **14.** Esprit de corps ( union is strength):-This principle implies that there should be coordination and team work among the members of an organization. Management must take steps to develop a sense of belongingness among the members of the work group. Team spirit helps in developing an atmosphere of mutual trust and understanding. It inspires people to work harder and improve the quality of work.

# Difference between unity of command and unity of direction

| Basis           | Unity of command                  | Unity of direction                   |
|-----------------|-----------------------------------|--------------------------------------|
| 1. Meaning      | One subordinate should receive    | Each group of activities having same |
|                 | orders from and should be         | objective must have one head and one |
|                 | responsible to only one superior. | plan                                 |
| 2. Aim          | It prevents dual subordination    | It prevent overlapping of activities |
| 3. Implications | It affects an individual employee | It affects the entire organisation   |

# **FAYOR VERSUS TAYLOR- A COMPARISON**

| BAIS                | HENRI FAYOL                  | F.W.TAYLOR                     |
|---------------------|------------------------------|--------------------------------|
| 1. status           | Father of                    | Father of scientific           |
|                     | administrative(general)      | management                     |
|                     | Management                   |                                |
| 2. Attention        | Focuses on the top level     | Focuses on the operational     |
|                     | management                   | level Management               |
| 3. Applicability    | Applicable universally       | Applicable to specialized      |
|                     |                              | situations (factories)         |
| 4. emphasis         | Improving overall            | Stress on increasing           |
|                     | administration( stress on    | productivity( not the human    |
|                     | human aspect)                | aspect)                        |
| 5. Centre of study  | He worked from top to bottom | He worked from bottom to       |
|                     | level                        | top level                      |
| 6. Personality      | Practitioner                 | Scientist                      |
| 7. Results          | Personal experience          | Observation and                |
|                     |                              | experimentation                |
| 8. Unity of command | Strictly followed            | Not considered as important.   |
|                     |                              | Under functional foremanship,  |
|                     |                              | a worker receives order from 8 |
|                     |                              | specialists.                   |

## \*\*\*\*\*\*Glossary of some terms of modern production/scientific management.

## Just in time (JIT) manufacturing

It is an inventory management strategy to improve return on investment by reducing process inventory and its associated costs

<u>Lean Manufacturing</u>. The latest development in scientific management is lean manufacturing. It is a systematic method for the elimination of waste within a manufacturing process. By eliminating waste quality improved, production time reduced and cost is reduced. It is introduced by Toyota which tried to reduce 7 waste in production process.

<u>Kaizen</u>: kaizen simply means 'change for better'. Kaizen is the practice of continuous improvement by improving standardized activities and processes kaizen aims to eliminate waste.

<u>Six sigma</u>:- six sigma is a set of techniques and tools for process improvement. It is introduced by Motorola. It seeks to improve the quality output of process by identify and removing the causes of defects and minimizing variability in manufacturing and business process.