

Fundamentals of management for Engineers[23MB710]
M.RATNA [MBA]



**NARSIMHA REDDY
ENGINEERING COLLEGE**

An Autonomous Institution | Affiliated to JNTUH | Approved by AICTE
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UNIT-1

INTRODUCTION TO MANAGEMENT



UNIT -I

INTRODUCTION TO MANAGEMENT

A business develops in course of time with complexities. With increasing complexities managing the business has become a difficult task. The need of existence of management has increased tremendously. Management is essential not only for business concerns but also for banks, schools, colleges, hospitals, hotels, religious bodies, charitable trusts etc. Every business unit has some objectives of its own. These objectives can be achieved with the coordinated efforts of several personnel. The work of a number of persons are properly coordinated to achieve the objectives through the process of management is not a matter of pressing a button, pulling a lever, issuing orders, scanning profit and loss statements, promulgating rules and regulations. " Peter F. Drucker has stated in his famous book "The Practice of Management" that, "the emergence of management as an essential, a distinct and leading social institution is a pivotal event in social history.

Management is a vital aspect of the economic life of man, which is an organized group activity. It is considered as the indispensable institution in the modern social organization marked by scientific thought and technological innovations. One or the other form of management is essential wherever human efforts are to be undertaken collectively to satisfy wants through some productive activity, occupation or profession. It is management that regulates man's productive activities through coordinated use of material resources. Without the leadership provided by management, the resources of production remain resources and never become production. Management is the integrating force in all organized activity. Whenever two or more people work together to attain a common objective, they have to coordinate their activities. They also have to organize and utilize their resources in such a way as to optimize the results. Not only in business enterprises where costs and revenues can be ascertained accurately and objectively but also in service organizations such as government, hospitals, schools, clubs, etc., scarce resources including men, machines, materials and money have to be integrated in a productive relationship, and utilized efficiently towards the achievement of their



gals. Thus, management is not unique to business organizations but common to all kinds of social organizations. Management has achieved an enviable importance in recent times.

DEFINITIONS OF MANAGEMENT

Henry Fayol, "To manage is to forecast and plan, to organize, to compound, to co-ordinate and to control."

Harold Koontz says, "Management is the art of getting things done through and within formally organized group."

Peter F. Drucker defines, "management is an organ; organs can be described and defined only through their functions".

Terry, "Management is not people; it is an activity like walking, reading, swimming or running. People who perform Management can be designated as members, members of Management or executive leaders."

Ralph C. Davis has defined Management as, "Management is the function of executive leadership anywhere."

NATURE OF MANAGEMENT

FEATURES OF MANAGEMENT

- 1) **Management is a social process:-** Social process refers to the series of activities that are performed in the society. These activities are carried out by administrators, politicians, economists, house wives, businessmen and so on. Management helps everyone to carry out the
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activities in the society effectively.

- 2) **Body of people:-** Management also denotes a body of people involved in decision-making.
 - 3) **Management is omnipresent:-** Management principles are applied to every kind of organization and also to every level in it.
 - 4) **It is an inexact science:-** Management principles are not like those in sciences or maths where things are fairly clear or exact. Management deals with people and it is difficult to predict their behavior accurately. It falls in area of social science. Its principles are situation bound, so their applicability does not give same result every time.
 - 5) **It is complex:-** Management functions call for a fairly professional approach to manage a given situation. Businesses are operating in complex environments.
 - 6) **Management is situational in nature:-** The same style of management cannot work for the same situation every time.
 - 7) **Management is an art and also a science:-** An art is personal skill. The management skills are highly individual oriented and can be sharpened with more training and practice. It is a systematic body of knowledge, its principles are universally acceptable. Science establishes cause and effect relationship between variables. It also establishes cause-and-effect relationship between the given factors. It explains what happens if the employees are not paid salaries on time.
 - 8) **Management is a profession:-** Profession refers to vocation or a branch of advanced learning such as engineering or medicine. Managers are professional in their approach.
 - 9) **Management is inter-disciplinary:-** The subject of management is heavily dependent on other disciplines such as economics, operations research, statistics, sociology, Psychology and
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mathematics etc.

10) **Manager has 4 types of resources:-** The 4 M's Men, Money, Materials and Machines to manage.

SCOPE OF MANAGEMENT

Management is an all pervasive function since it is required in all types of organized Endeavour, Thus, its scope is very large. The following activities are covered under the scope of management:

1. Production Management:

Production means creation of utilities. This creation of utilities takes place when raw materials are converted into finished products. Production management, then, is that branch of management which by scientific planning and regulation sets into motion that part of enterprise to which has been entrusted the task of actual translation of raw material into finished product. ‘

Plant location and layout, production policy, type of production, plant facilities, material handling, production planning and control, repair and maintenance, research and development, simplification and standardization, quality control and value analysis, etc., are the main problems involved in production management.

2. Marketing Management:

Marketing management refers to the planning, organizing, directing and controlling the activities of the persons working in the market division of a business enterprise with the aim of achieving the organization objectives. Market analysis, marketing policy, brand name, pricing, channels of distribution, sales promotion, sale-mix, after sales service, market research, etc. are the problems of marketing management.

3. Financial Management:

Finance is viewed as one of the most important factors in every enterprise. Financial management is



concerned with the managerial activities pertaining to the procurement and utilization of funds or finance for business purposes.

The main functions of financial management include:

- a. Estimation of capital requirements.
- b. Ensuring a fair return to investors.
- c. Determining the suitable sources of funds.
- d. Laying down the optimum and suitable capital.

4. Personnel Management:

Personnel Management is that phase of management which deals with the effective control and use of manpower. Effective management of human resources is one of the most crucial factors associated with the success of an enterprise. Personnel management is concerned with managerial and operative functions.

Functions of personnel management include:

- a) Personnel planning.
- b) Organizing by setting up the structure of relationship among jobs, personnel.
- c) Directing and controlling the employees
- d) Procurement of right kind and number of persons
- e) Training and development of employees
- f) Determination of adequate and equitable compensation of employees
- g) Integration of the interests of the personnel with that of the enterprise
- h) Providing good working conditions and welfare services to the employees.

5. Office Management:

The concept of management when applied to office is called 'office management'. Office management is the technique of planning, coordinating and controlling office activities with a view



to achieve common business objectives. One of the functions of management is to organize the office work in such a way that it helps the management in attaining its goals. It works as a service department for other departments. The success of a business depends upon the efficiency of its administration. The efficiency of the administration depends upon the information supplied to it by the office.

Harry H. Wylie defines office management as –the manipulation and control of men, methods, machines and material to achieve the best possible results—results of the highest possible quality with the expenditure of least possible effect and expense, in the shortest practicable time, and in a manner acceptable to the top management. ||

FUNCTIONS OF MANAGEMENT

According to Henry Fayol, –To manage is to forecast and plan, to organize, to command, & to control. Whereas Luther Gullick has given a keyword ‘**POSDCORB**’ where P stands for Planning, O for Organizing, S for Staffing, D for Directing, Co for Co-ordination, R for reporting & B for Budgeting. But the most widely accepted are functions of management given by KOONTZ and O’DONNELL i.e. **Planning, Organizing, Staffing, Directing and Controlling**.

- 1) **Planning:** Planning is the conscious determination of future course of action. This involves why an action, what action, how to take action, and when to take action. Thus, planning includes determination of specific objectives, determining projects and programs, setting policies and strategies, setting rules and procedures and preparing budgets. Planning involves essentially four stages: 1. Identifying the goal to be achieved 2. Exploring the courses of action available to reach this goal 3. Evaluating each course of action 4. Selecting the best course of action for implementation.
 - 2) **Organizing:** Organizing is the process of dividing work into convenient tasks or duties, grouping of such duties in the form of positions, grouping of various positions into departments and
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sections, assigning duties to individual positions, and delegating authority to each position so that the work is carried out as planned. It is viewed as a bridge connecting the conceptual idea developed in creating and planning to the specific means for accomplishment of these ideas.

- 3) **Staffing:** Ascertain how many positions are there in the organization and at what level. Once this information is available, the next task is to collect details such as what type of candidates are required for each level and accordingly fill these positions with right people. Staffing is a process which includes recruitment, selection, training, placement, appraisal, promotion and career planning.
 - 4) **Directing:** when people are available in the organization, they must know what they are expected to do in the organization. Superior managers fulfill this requirement by communicating to subordinates about their expected behavior. Once subordinates are oriented, the superiors have continuous responsibility of guiding and leading them for better work performance and motivating them to work with zeal and enthusiasm. Thus, directing includes communicating, motivating and leading. Organizing as a process involves:
 - a) Identification of activities.
 - b) Classification of grouping of activities.
 - c) Assignment of duties.
 - d) Delegation of authority and creation of responsibility.
 - e) Coordinating authority and responsibility relationships.
 - 5) **Controlling:** Controlling involves identification of actual results, comparison of actual results with expected results as set by planning process, identification of deviations between the two, if any, and taking of corrective action so that actual results match with expected results.
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- 6) **Reporting:** The Managers are the coordinators and leaders of the organization. And the coordinators hold the responsibility of reporting status and position of the organization before the interested groups of people, such as shareholders, stakeholders, Top Management, Administrators, Board of Directors, Employees, Trade unions, Customers, Financiers and so forth. So, the management informs and inspires the relevant groups about their objectives, status and reputation.
- 7) **Budgeting:** A budget is a financial plan for a defined period of time, usually a year. It may also include planned sales volume and revenues, resource quantities, costs and expenses, assets, liabilities and cash flows. Budgeting is a process of preparing estimates of future sales, expenses, revenues, cash flows, etc. Some authors say the budgeting is include in planning function, but Luther Gullick considered this as a separate function.

MANAGERIAL ROLES

Like we perform different roles in our family (such as father, son, brother, mother, sister, daughter and so on), the manager also performs several roles though officially they are given one job title (such as trainer, monitor, leader, counselor, mentor, coach, advisor, controller etc.). Dr. Henry Mintzberg has explained ten roles of manager in his report -Managerial work: Analysis From Observation.

1. Interpersonal Roles

- a) **Figurehead:** Manager as a figurehead, performs all symbolic legal and social duties and discharges all social, legal and ceremonial obligations. He inspires the employees and shareholders with vision, mission and action plans. He plans, organizes and controls the business.
- b) **Leader :** As a leader, every manager must motivate and encourage his employees. He must



also try to reconcile their individual needs with the goals of the organization.

- c) **Liaison** : He forms relationship with outside the department or organization to obtain information useful for his organization.

2. Informational Roles

- a) **Monitor** : As a monitor, the manager has to perpetually scan his environment for information, interrogate his liaison contacts and his subordinates, and receive unsolicited information, much of it as result of the network of personal contacts he has developed.
- b) **Disseminator**: In the role of a disseminator, the manager passes some of his privileged information directly to his subordinates who would otherwise have no access to it.
- c) **Spokesman** : In this role, the manager informs and satisfies various groups and people who influence his organization. Thus, he advises shareholders about financial performance, assures consumer groups that the organization is fulfilling its social responsibilities and satisfies government that the origination is abiding by the law.

3. Decisional Roles

- a) **Entrepreneur** : In this role, the manager constantly looks up for new ideas and seeks to improve his unit by adapting it to changing conditions in the environment.
- b) **Disturbance Handler (Trouble Shooter)** : In this role, the manager has to work like a fire fighter. He must seek solutions of various unanticipated problems – a strike mayloom large a major customer may go bankrupt; a supplier may renege on his contract, andso on.
- c) **Resource Allocator** : In this role, the manager must divide work and delegate authority



among his subordinates. He must decide who will get what.

- d) **Negotiator** : The manager has to spend considerable time in negotiations. Thus, the chairman of a company may negotiate with the union leaders a new strike issue, the foreman may negotiate with the workers a grievance problem, and so on. In addition, managers in any organization work with each other to establish the organization's long- range goals and to plan how to achieve them. They also work together to provide one another with the accurate information needed to perform tasks. Thus, managers act as channels of communication with the organization.

LEVELS OF MANAGEMENT

An enterprise may have different levels of management. Levels of management refer to a line of demarcation between various managerial positions in an enterprise. The levels of management depend upon its size, technical facilities, and the range of production. The real significance of





levels is that they explain authority relationships in an organization. Considering the hierarchy of authority and responsibility, one can identify three levels of management namely:

- 1. Top level management:** Top level management of a company consists of owners/shareholders, Board of Directors, its Chairman, Managing Director, or the Chief Executive, or the General Manager or Executive Committee having key officers.

Top management is the ultimate source of authority and it lays down goals, policies and plans for the enterprise. It devotes more time on planning and coordinating functions. It is accountable to the owners of the business of the overall management. It is also described as the policy making group responsible for the overall direction and success of all company activities. The important functions of top management include:

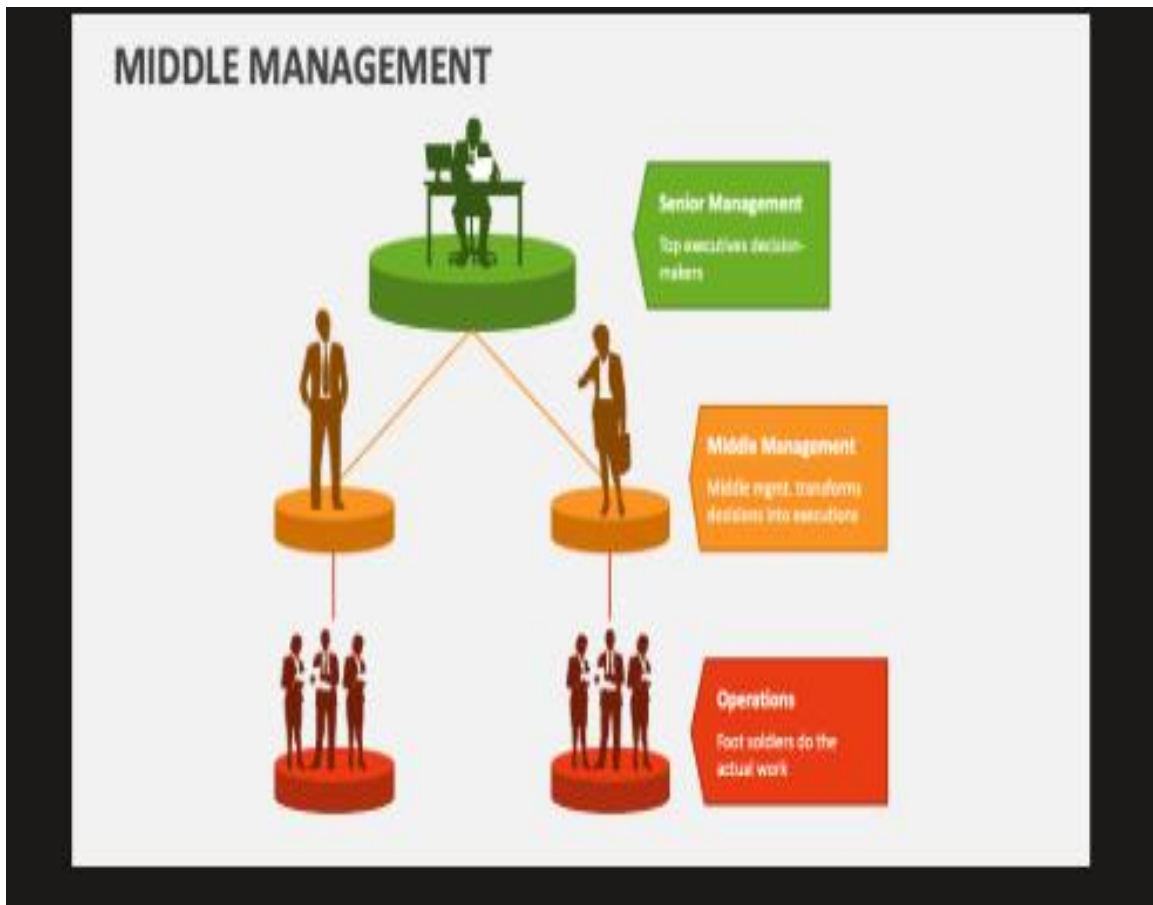
- To establish the objectives or goals of the enterprise.
- To make policies and frame plans to attain the objectives laid.
- To set up an organizational frame work to conduct the operations as per plans.
- To assemble the resources of money, men, materials, machines and methods to put the plans into action.
- To exercise effective control of the operations.
- To provide overall leadership to the enterprise.

- 2. Middle level management :** Middle level management of a company consists of heads of functional departments viz. Purchase Manager, Production Manager, Marketing Manager, Financial controller, etc. and Divisional and Sectional Officers working under these Functional Heads.

The job of middle management is to implement the policies and plans framed by the top management. It serves as an essential link between the top management and the lower level or operative management. They are responsible to the top management for the functioning of their departments. They devote more time on the organization and motivation functions of management. Without them the top management's plans and ambitious expectations will not be fruitfully realized. The following

are the main functions of middle management:

- a) To interpret the policies chalked out by top management



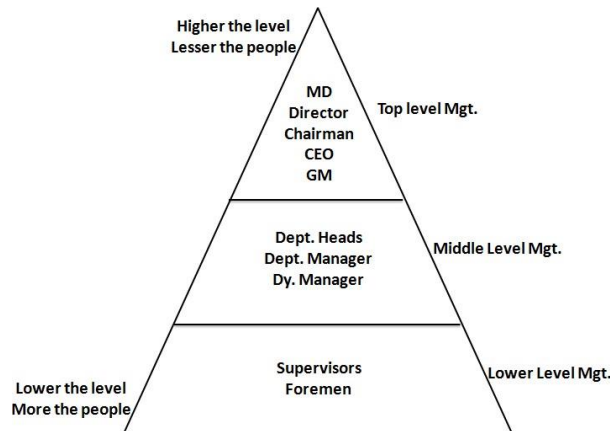


To prepare the organizational set up in their own departments.

- b) To recruit and select suitable operative and supervisory staff.
- c) To assign activities, duties and responsibilities for timely implementation of the plans.
- d) To compile all the instructions and issue them to supervisor under their control.
- e) To motivate personnel to attain higher productivity and to reward them properly.
- f) To cooperate with the other departments for ensuring a smooth functioning of the entire organization.
- g) To collect reports and information on performance in their departments.
- h) To report to top management
- i) To make suitable recommendations to the top management for the better execution of plans and policies.

3. Lower level management: It is placed at the bottom of the hierarchy of management, and actual operations are the responsibility of this level of management. It consists of foreman, supervisors, sales officers, accounts officers and so on. They are in direct touch with the rank and file or workers. Their authority and responsibility is limited. They pass on the instructions of the middle management to workers.

They interpret and divide the plans of the management into short-range operating plans. They are also involved in the process of decisions-making. They have to get the work done through the workers. They allot various jobs to the workers, evaluate their performance and report to the middle level management. They are more concerned with direction and control functions of management. They devote more time in the supervision of the workers.



MANAGERIAL SKILLS

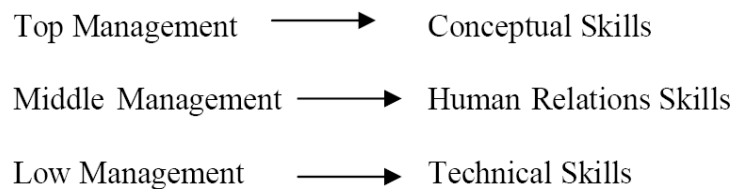
A skill is an individual's ability to translate knowledge into action. Hence, it is manifested in an individual's performance. Skill is not necessarily inborn. It can be developed through practice and through relating learning to one's own personal experience and background. In order to be able to successfully discharge his roles, a manager should possess three major skills. These are conceptual skill, human relations skill and technical skill.

1. Conceptual skill: The Conceptual Skill which deals with ideas refers to the ability of a manager to take a broad and farsighted view of the organization and its future, his ability to think in abstract, his ability to analyze the forces working in a situation, his creative and innovative ability and his ability to assess the environment and the changes taking place in it. In short, it is his ability to conceptualize the environment, the organization, and his own job, so that he can set appropriate goals for his organization, for himself and for his team. This skill seems to increase in importance as a manager moves up to higher positions of responsibility in the organization.



2. Technical Skill: The technical skill which deals with things is the manager's understanding of the nature of job that people under him have to perform. It refers to a person's knowledge and proficiency in any type of process or technique. In a production department this would mean an understanding of the technicalities of the process of production. Whereas this type of skill and competence seems to be more important at the lower levels of management, its relative importance as a part of the managerial role diminishes as the manager moves to higher positions.

3. Human relations skill: The Human Relations Skill which deals with people is the ability to interact effectively with people at all levels. This skill develops in the manager sufficient ability (a) to recognize the feelings and sentiments of others; (b) to judge the possible actions to, and outcomes of various courses of action he may undertake; and (c) to examine his own concepts and values which may enable him to develop more useful attitudes about himself.





CHALLENGES OF MANAGEMENT

In the present scenario it is difficult for the organizations to survive. The challenges and the competition bring organizations more opportunities.

1. Economic Pressure: During difficult economic times, effective management is often at a premium. Anybody can run a company when business is booming. The difference between a bad management and a good management reflects the difference between making a lot of money and making a lot more money. In tough times the difference between a good and a bad management can be the difference between profit or loss or ultimately between survival and failure.

2. Globalization: Globalization refers to the free movement of goods, services and people across the world. Today we are living in a global village. We are now not just national citizens but we have become a global citizen. Globalization in its literal sense is the process or transformation of local or regional phenomena into global ones. Globalization is often used to refer to economic globalization, that is, integration of national economies into the international economy through trade, foreign direct investment, capital flows, migration, and the spread of technology.

Globalization makes it possible for companies to find economies with cheaper costs and buy component parts at a reduced price. Companies can benefit through outsourcing and off-shoring. It also means firms would have a global reach thus increasing the potential customers.

3. Change: Businesses should embrace change. Change is important for any organization because, without change, businesses would likely lose their competitive edge and fail to meet the needs of what most hope to be a growing base of loyal customers. Today the organizations have to adapt themselves to the changing business environment. If the organization continues with its old business methods and do not adopt the new strategies then it is likely that the business might come to an end. Change can be in view of technology, culture, growth opportunities etc.



4. Innovation: Innovation refers to the process of translating an idea into a good or service that creates value for which customer pay money. Innovation differs from invention in that innovation refers to the use of a better and, as a result, novel idea or method, whereas invention refers more directly to the creation of the idea or method itself. Organizations are finding

innovative ways of making their existence in the world, be it the advertisement of their product, their services, their social message etc.

5. Customer Service: Organizations can't exist without customers. Meeting the required needs and demands of the customers has become a challenge for the organization. In the Internet era, a challenge has been to maintain and/or enhance the personal experience while making use of the efficiencies of online commerce. Many organizations are trying to target their customers through web portals and allowing them a convenient approach to their services at their homes only.

Employee Satisfaction: Employee satisfaction is a measure of how happy workers are with their job and working environment. Keeping morale high among workers can be of tremendous benefit to any company, as happy workers will be more likely to produce more, take fewer days off, and stay loyal to the company. Companies are trying new management techniques to keep their employees satisfied in order to derive maximum productivity from them. Keeping employees motivated, help improving their skills, providing assistance in case of crisis, are some of the practices followed by the organizations.



- 6. Organization Ethics:** Simply speaking, ethics means being good and doing good. Organizational Ethics is the ethics of an organization, and it is how an organization ethically responds to an internal or external stimulus. Behaving ethically in business is widely regarded as good business practice.
- 7. Social Responsibility:** Social responsibility includes accountability, transparency, ethical behavior, respect to stakeholders interest, respect for human rights and respect to law. Social responsibility is a duty of every individual or organization which has to perform so as to maintain a balance between the economy and the ecosystem. Businesses can use decision making to secure their businesses by making decisions that allow for government agencies to minimize their involvement with the corporation.
- 8. Pressure from World Organizations:** Many world organizations such as WTO, GATT, IMP, World Bank etc. has a great influence on the working of the multinational organizations as well as on national organizations. The organizations have to follow the rules, principles and various articles laid down by these World organizations.



EVOLUTION OF MANAGEMENT

The origin of management can be traced back to the days when man started living in groups. History reveals that strong men organized the masses into groups according to their intelligence, physical and mental capabilities. Evidence of the use of the well recognized principles of management is to be found in the organization of public life in ancient Greece, the organization of the Roman Catholic Church and the organization of military forces. Thus management in some form or the other has been practiced in the various parts of the world since the dawn of civilization. With the onset of Industrial Revolution, however, the position underwent a radical change. The structure of industry became extremely complex. At this stage, the development of a formal theory of management became absolutely necessary. It was against this background that the pioneers of modern management thought laid the foundations of modern management theory and practice.

The classical development of management thoughts can be divided into- the scientific management, the administration/organizational management, the behavioral management and the quantitative management. The first two (scientific management school and organizational) emerged in late 1800s and early 1900s were based on the management belief that people were rational, economic creatures choose a course of action that provide the greatest economic gain. These schools of management thoughts are explained as below:

1. The Scientific Management:

F.W.Taylor (1856-1915): Frederick Winslow Taylor well-known as the founder of scientific management was the first to recognize and emphasis the need for adopting a scientific approach to the task of managing an enterprise. He tried to diagnose the causes of low efficiency in industry and came to the conclusion that much of waste and inefficiency is due to the lack of order and system in the methods of management. He therefore, suggested that those responsible for management should adopt a scientific approach in their work, and make use of "scientific method" for achieving higher efficiency. The scientific method consists essentially of (a) Observation (b) Measurement



(c) Experimentation and (d) Inference

Characteristics of Scientific Management

- i. Science, not a rule of thumb
- ii. Harmony between management and workers
- iii. Monitor workers performance
- iv. Wages are paid according to piece rate

Division of work

Elements of Scientific Management:

The techniques which Taylor regarded as its essential elements or features may be classified as under:

1. **Work Study:** Work study may be defined as the systematic, objective and critical examination of all the factors governing the operational efficiency of any specified activity in order to effect improvement. Work study includes.

- a) **Methods Study:** It is the systematic investigation of the existing method of doing a job. The management should try to ensure that the plant is laid out in the best manner and is equipped with the best tools and machinery. The possibilities of eliminating or combining certain operations may be studied.
 - b) **Motion Study:** It is a study of the movement, of an operator (or even of a machine) in performing an operation with the purpose of eliminating useless motions. It means examining the necessary time to perform a job.
 - c) **Time Study (work measurement):** The basic purpose of time study is to determine
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the proper time for performing the operation. Such study may be conducted after the motion study. Both time study and motion study help in determining the best method of doing a job and the standard time allowed for it.

- d) **Fatigue Study:** If, a standard task is set without providing for measures to eliminate fatigue, it may either be beyond the workers or the workers may over strain themselves to attain it. It is necessary, therefore, to regulate the working hours and provide for rest pauses at scientifically determined intervals.

e) **Rate-setting:** Taylor recommended the differential piece wage system, under which workers performing the standard task within prescribed time are paid a much higher rate per unit than inefficient workers who are not able to come up to the standard set.

2. **Planning the Task:** Having set the task which an average worker must strive to perform to get wages at the higher piece-rate, necessary steps have to be taken to plan the production thoroughly so that there is no bottle neck and the work goes on systematically.

3. **Selection and Training:** Scientific Management requires a radical change in the methods and procedures of selecting workers. It is therefore necessary to entrust the task of selection to a central personnel department. The procedure of selection will also have to be systematized. Proper attention has also to be devoted to the training of the workers in the correct methods of work.

4. **Standardization:** Standardization may be introduced in respect of the following.

- a) **Tools and equipment:** By standardization is meant the process of bringing about uniformity. The management must select and store standard tools and implements which will be nearly the best or the best of their kind.
- b) **Speed:** There is usually an optimum speed for every machine. If it is exceeded, it is likely to result in damage to machinery.
- c) **Conditions of Work:** To attain standard performance, the maintenance of standard conditions of ventilation, heating, cooling, humidity, floor space, safety etc., is very
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essential.

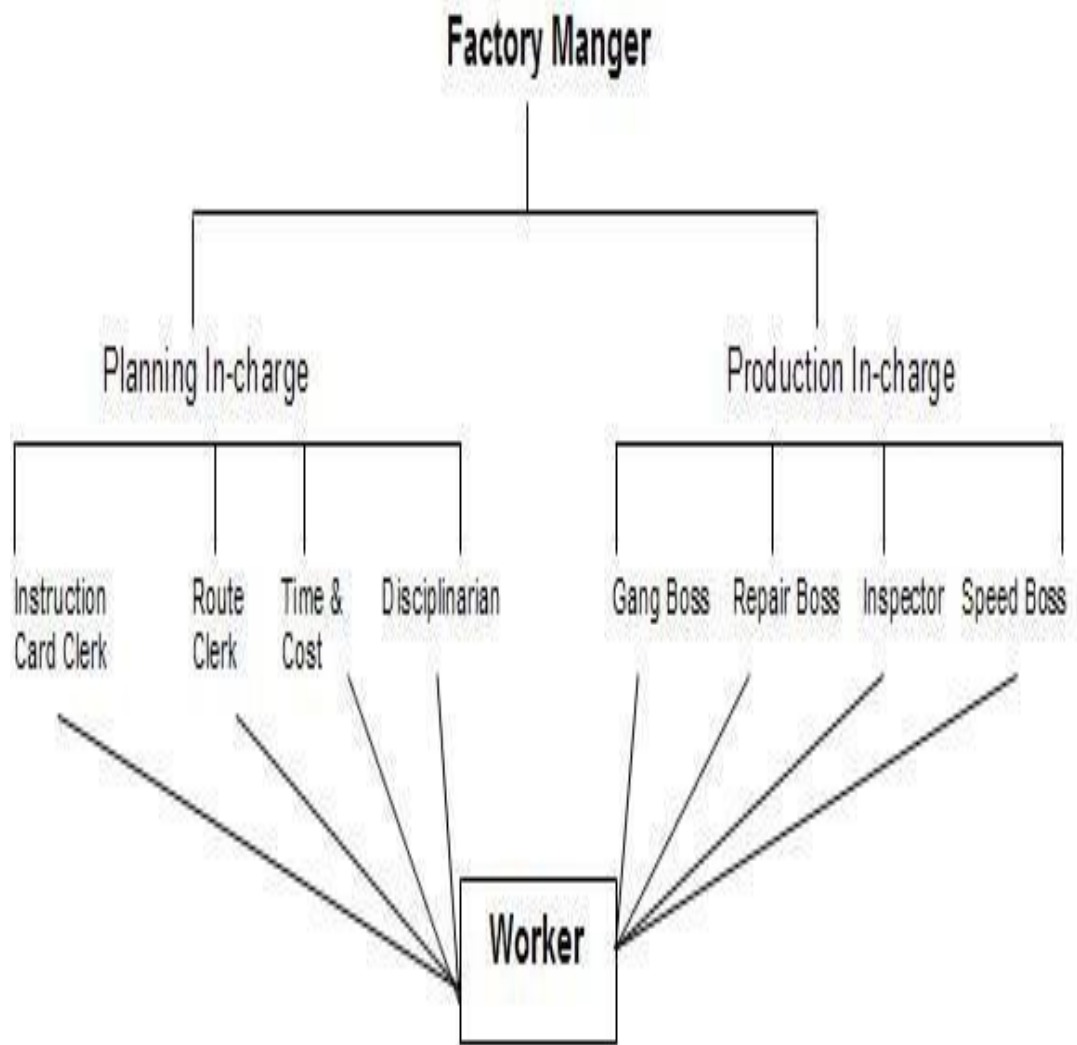
- d) **Materials:** The efficiency of a worker depends on the quality of materials and the method of handling materials.

5. **Specialization:** Scientific management will not be complete without the introduction of specialization. Under this plan, the two functions of 'planning' and 'doing' are separated in the organization of the plant. The 'functional foremen' are specialists who join their heads to give thought to the planning of the performance of operations in the workshop. Taylor suggested eight functional foremen under his scheme of functional foremanship.

- a) **The Route Clerk:** To lay down the sequence of operations and instruct the workers concerned about it.
- b) **The Instruction Card Clerk:** To prepare detailed instructions regarding different aspects of work.
- c) **The Time and Cost Clerk:** To send all information relating to their pay to the workers and to secure proper returns of work from them.

The Shop Disciplinarian: To deal with cases of breach of discipline and absenteeism.

- d) **The Gang Boss:** To assemble and set up tools and machines and to teach the workers to make all their personal motions in the quickest and best way.
 - e) **The Speed Boss:** To ensure that machines are run at their best speeds and proper tools are used by the workers.
 - f) **The Repair Boss:** To ensure that each worker keeps his machine in good order and maintains cleanliness around him and his machines.
 - g) **The Inspector:** To show to the worker how to do the work.
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6. **Mental Revolution:** At present, industry is divided into two groups – management and labour. The major problem between these two groups is the division of surplus. The management wants the maximum possible share of the surplus as profit; the workers want, as large share in the form of wages. Taylor has in mind the enormous gain that arises from higher productivity. Such gains can be shared both by the management and workers in the form of increased profits and increased wages.

Criticism on Scientific Management

- a) **Speeding up of workers:** Scientific Management is only a device to speed up the workers without much regard for their health and well-being.
- b) **Loss of individual worker's initiative:** Scientific Management reduces workers to automatic machine by taking away from them the function of thinking.



Problem of monotony: By separating the function of planning and thinking from that of doing, Scientific Management reduces work to mere routine.

- c) **Reduction of Employment:** Scientific Management creates unemployment and hits the workers hard.
- d) **Weakening of Trade Unions:** Under Scientific Management, the important issues of wages and working conditions are decided by the management through scientific investigation and the trade unions may have little say in the matter.
- e) **Exploitation of workers:** Scientific Management improves productivity through the agency of workers and yet they are given a very small share of the benefit of such improvement.
- f) **Heavy Investment:** It requires too heavy an investment. The employer has to meet the extra cost of the planning department though the foreman in this department do not work in the workshop and directly contribute towards higher production.
- g) **Loss due to re-organization:** The introduction of Scientific Management requires a virtual reorganization of the whole set-up of the industrial unit. Work may have to be suspended to complete such re-organization.
- h) **Unsuitable for small scale firms:** various measures like the establishment of a separate personnel department and the conducting of time and motion studies are too expensive for a small or modest size industrial unit.

Advantages of Scientific Management

1. Scientific management improved working methods and brought enormous increase in productivity.
2. Piece rate wage system was introduced and incentive systems were evolved.
3. It laid down foundation for work study and other related techniques.
4. Scientific selection and training of employees leads to better workforce which ensures increase in efficiency.



5. Harmonious relationship between the workers and the management.
6. Opportunity for scientific training and development to increase skills knowledge and competency.
7. Application of scientific methods and techniques in better working conditions to reduce fatigue.
8. Higher wages to the workers for higher productivity.

Disadvantages of Scientific Management

1. It is based upon one best way and is applicable for simple organizations than that for today's dynamic and complex organization.
2. It focuses on individual performance than group efforts and divides the workers into efficient and inefficient categories.
3. It is focused on specialization and repetition of jobs to increase the productivity which reduces innovation and creativity and promotes monotony.
4. It neglects human factor because it motivates workers to work for monetary benefits rather than human resource development and resources.

There is no scope for creativity of employees because they are developed by manager which promotes frustration.

2. The Administrative Management:

Henry Fayol is generally regarded as the founder of administrative management and he provided the bases for art of management. Fayol found that industrial activities could be divided into six groups as shown in figure.

1. Technical (Production)
2. Commercial (buying, Selling and exchanging).
3. Financial (Search for, and optimum use of capital).
4. Security (Protection of property and persons).
5. Accounting (including Statistics).
6. Managerial (Planning, organization, command, contribution and control).

Henri Fayol pointed out that these activities exist in every size of business.





Also, Fayol identified 14 principles of management. They are:

Principles of Management (DAD U SEE USSR ? . O I SEE...)

1. **Division of Work:** According to this principle, work should be divided into small tasks and each task is performed by a person who is specialist in that area. This will save the time and energy needed to complete a task and also increase the speed, accuracy and efficiency of work. According to Fayol, this principle is applicable to both technical and managerial work.
2. **Authority and Responsibility:** Authority is the power or right to give orders. Fayol proposed that for every authority there should be a corresponding responsibility. Then only, a person can work effectively and get efficient results. In the same way, if a person is given a responsibility without an adequate authority, he will not be effective in getting the required results.
3. **Discipline:** A good discipline is required at all levels for the smooth functioning of an organization. It includes respect of authority, obedience, proper conduct, fair clear rules and regulations careful use of penalties. According to Fayol, a good supervision at all levels helps to maintain discipline in an organization.
4. **Unity of Command:** Unity of Command implies that there should only one boss for an employee i.e., an employee should be answerable to only one superior and receive orders only from him. This helps to avoid confusion regarding what task is to be done, when it is to be done how it is to be done.
5. **Centralization:** It means the extent to which authority should be concentrated in the hands of top level management. It may be centralized or decentralized. There are limitations of complete centralization & complete decentralization. Therefore, there should be proper balance between these two.



6. **Unity of Direction:** This principle says that there should be one head and one plan. All similar activities should be grouped together, be supervised by one and have one plan of action. The efforts of all the members of a group must be directed towards the achievement of common goals.
7. **Subordination:** In an organization individual interest should not be given any importance. The manager should always keep organizational interest before him & should determine such policies which will be beneficial to entire group & not just few personnel. It is responsibility to management to create common understanding between all. Individual interest is subordinated to organizational interest.
8. **Scalar Chain:** Under this principle, Fayol emphasized on having a formal chain of command and communication from the top level management to lower level. The chain should be strictly followed by all managers and subordinators except in situations of emergency. Such emergency is referred to by Fayol as Gang Plank. Under Gang Plank , Same level managers can talk to each other without following the regular chain of sequences for any decision making in order to avoid any delay in communication . It shows the straight line of authority from highest level to lower level for communication.
9. **Remuneration:** According to this principle, employees should be fairly compensated for their efforts in achieving organizational objectives. The remuneration should be just and equitable for both the employees and employer, it should be determined based on the work allocated, cost of living, market wage rate for similar work and financial position of an organisation.
10. **Order:** This principle stresses on the orderliness of everything and everyone. This means that every one working in an organization should be allocated a particular place of work and he should be at that place during working hours. It means keeping the right man or right thing at the right time in the right place.
11. **Initiative:** Fayol suggested that employees should be allowed to take initiative in work related matters without being undisciplined.



12. **Stability of Tenure of Personnel:** Retaining productive employees should always be a high priority of management. This indicates avoiding frequent transfers of the employees much before they settle in their jobs.

13. **Equity:** According to this principle, everyone in an organization should be equal in the eyes of management. The managers should neither favour any subordinate nor neglect them; they should give them a fair treatment without discriminating on the basis of gender, religion, nationality and language. This will make employees more devoted to work.

14. **Esprit De Corps (Unity is strength):** This is a French term. It means manager is like a captain of a team who is responsible to maintain high moral in all workers. It may be possible by effective communication among all persons in organization. His understanding & differences in opinions should not be harmful. The best way of taking such situation is to establish dialogue between parties. Participation of workers in the process of decision making is important. The principle states that an organization must make every effort to maintain group cohesion in the organization. This principle emphasizes on team work. Unity of staff is the foundation of success.



3. Behavioral Approach

Elton Mayo's Human Relations Approach: Scientific management theory focused on physical resources rather than human resources. This theory concentrated on economic needs of workers but not social needs because it concentrated on improvement of the working methods but not on the working men. The human relations approach is often called the behavioral management theory. The criticism of the Scientific and Administrative Management as advocated by Taylor and Fayol, respectively, gave birth to Human Relation Approach. The behavioural scientists criticized the early management approaches for their insensitiveness to the human side of organization. The behavioural scientists did not view the employees mechanically in work situation, but tried to show that the employees not only have economic needs but also social and psychological needs like need for recognition, achievement, social contact, freedom, and respect. Human relations school regards business organization as a psycho-social system.

Professor George Elton Mayo (1880-1949) and his associates conducted a famous study on human behaviour at the Hawthorne plant of the Western Electric Company from 1924 to 1932 and this study formed the foundation of this school of management thoughts.

Hawthorne Experiments:



1. Lighting Experiments

These experiments were performed to find out the effect of different levels of lighting on productivity of labour. The brightness of the light was increased and decreased to find out the effect on the productivity of the test group. Surprisingly, the productivity increased even when the level of lighting was decreased. It was concluded that factors other than light were also important.

2. Relay Assembly Test Room Study

Under this test, two small groups of six female telephone relay assemblers were selected. Each group was kept in separate rooms. From time to time, changes were made in working hours, rest periods, lunch breaks, etc. They were allowed to choose their own rest periods and to give suggestions. Output increased in both the control rooms. It was concluded that social relationship among workers, participation in decision-making, etc. had a greater effect on productivity than working conditions.

3. Mass Interviewing Programme

21,000 employees were interviewed over a period of three years to find out reasons for increased productivity. It was concluded that productivity can be increased if workers are allowed to talk freely about matters that are important to them.

The basic hypotheses of this study as well as the basic propositions of the Human Relation Approach are the following:

1. The social and psychological factors are responsible for workers' productivity and job satisfaction. Only good physical working conditions are not enough to increase productivity.
2. The informal relations among workers influence the workers' behaviour and performance more than the formal relations in the organisation.
3. Employees will perform better if they are allowed to participate in decision-making affecting their interests.
4. Employees will also work more efficiently, when they believe that the management is interested in their welfare.
5. When employees are treated with respect and dignity, their performance will improve.



6. Financial incentives alone cannot increase the performance. Social and Psychological needs must also be satisfied in order to increase productivity.

7. Good communication between the superiors and subordinates can improve the relations and the productivity of the subordinates.

8. Special attention and freedom to express their views will improve the performance of the workers.

The human relations approach is concerned with recognition of the importance of human element in organizations. It revealed the importance of social and psychological factors in determining worker's productivity and satisfaction. It is instrumental in creating a new image of man and the work place. However, this approach also did not go without criticism. It was criticized that the approach laid heavy emphasis on the human side as against the organizational needs. However, the contribution of this approach lies in the fact that it advises managers to attach importance to the human side of an organization.



Criticisms on Human Relations Approach

1. **Lacks Validity** : The Hawthorne experiments were conducted under controlled situations. These findings will not work in real setting. The workers under observation knew about the experiments. Therefore, they may have improved their performance only for the experiments.
2. **More Importance to Human Aspects** : This approach gives too much importance to human aspects. Human aspects alone cannot improve production. Production also depends on technological and other factors.
3. **More Emphasis on Group Decision-making** : This approach places too much emphasis on group decision-making. In real situation, individual decision-making cannot be totally neglected especially when quick decisions are required and there is no time to consult others.
4. **Over Importance to Freedom of Workers** : This approach gives a lot of importance to freedom of the workers. It does not give importance to the constructive role of the supervisors. In reality too much of freedom to the workers can lower down their performance or productivity.

Maslow's Need Hierarchy Approach:- Abraham. H. Maslow developed a need hierarchy to explain human behaviour within an organization. According to his writings, the humans work attitude depends on their needs. His theory states that the human beings work according to their needs. One may work for food, while other for status. Thus a good manager will extract the work from his subordinate by providing and fulfilling the suitable need.



McGregor's Theory X and Theory Y:- McGregor classified the people into two categories as Theory-X type (work avoiders) and Theory –Y type (work acceptors). The essence of management according to his theory is that the leader should identify the type of behavior of his subordinate and accordingly. A manager has to use a carrot approach (pat the employees) for theory Y people while a stick (punish the employees) for theory X people.

4. The Quantitative Approach:

The quantitative approach to management, sometimes known as operations research or management science, uses quantitative techniques to improve decision making. This approach includes applications of statistics, optimization models, information models, and computer simulations. The quantitative approach originated during World War II as mathematical and statistical solutions to military problems were developed for wartime use. The relevance of quantitative approach today is that it has contributed most directly to managerial decision making, particularly in planning and controlling. The availability of sophisticated computer software programs has made the use of quantitative techniques more feasible for managers. Techniques such as linear programming, simulation, queuing theory, network analysis, etc. are extensively use mathematical symbols, relationships and models in analyzing the management problems such as cost minimization, profit maximization, resource optimization, etc. This approach focuses attention on the fundamentals of analysis and decision making. The Quantitative School quantifies the problem; generate solution, tests the solution for their optimality and then it recommends. The decisions are optimum and perfect as distinguished from the human behavioral approach, in which decisions are 'satisfying'. This approach is devoid of any personal bias, emotions, sentiments, and intuitiveness. The main postulates of the quantitative approach are as follows:

- a) Management is a series of decision making. The job of a manager is to secure the best solution out of a series of interrelated variables.
 - b) These variables can be presented in the form of a mathematical model. It consists of a
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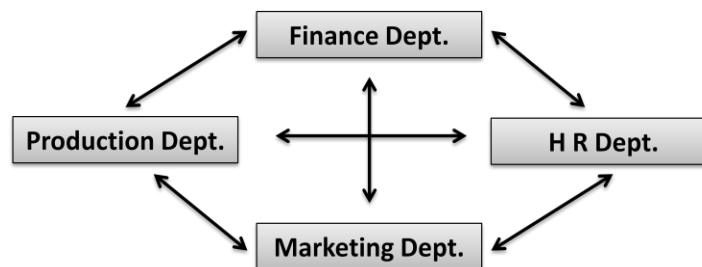
- set of functional equation which set out the quantitative interrelationship of the variable.
- c) If the model is properly formulated and the equations are correctly solved, one can secure the best solution to the model.

 - d) Organizations exist for the achievement of specific and measurable economic goals.
 - e) In order to achieve these goals, optimal decisions must be made through scientific formal reasoning backed by quantification.
 - f) Decision making models should be evaluated in the light of set criteria like cost reduction, return on investment, meeting time schedules etc.
 - g) The quality of management is judged by the quality of decisions made in diverse situations.

As Harold Koontz observed, mathematics is just a tool and it cannot be viewed as school or a separate approach to management theory.

4. **The Systems Approach:** A system is a set of interrelated but separate parts working towards a common purpose. In the 1960s, a new approach to management appeared which attempted to unify the earlier school of thoughts. This approach is commonly referred to as 'System Approach'. This system is one of the modern approaches to understand management. The system approach is based on the generalization that an organization is a system and its components (departments) are inter-related and inter-dependent. –A system is composed of related and dependent elements (departments) which, when in interactions, form a unitary whole. On other words, a system may be defined as an organized and purposeful entity of inter-related, inter-dependent and inter-acting elements. Our human body is system. In human body, each part of the body is viewed as a sub-system. These sub-systems are functionally related to each other and to the total system.

The managers must intertwine their department with the total organization and communicate with all other departments, employees and with each other.



The features of Systems Approach

- a. An organization is a system consisting of several subsystems. For example, in a business enterprise production, sales and other departments are the subsystem



A system consists of interacting elements. It is set of inter-related and inter-dependent parts arranged in a manner that produces a unified whole.

- b. The various sub-systems should be studied in their inter-relationships rather, than in isolation from each other.
- c. An organizational system has a boundary that determines which parts are internal and which are external.
- d. A system does not exist in a vacuum. It receives information, material and energy from other systems as inputs. These inputs undergo a transformation process within a system and leave the system as output to other systems.
- e. An organization is a dynamic system as it is responsive to its environment. It is vulnerable to change in its environment.

Systems can be open or closed. A **closed system** is not affected by its environment. For example, a chunk of iron ore is not substantially affected by its environment. An **open system** is a system that is affected by its environment. A simple example is a living organism, such as an animal. Most theorists treat an organization as an open system.

The open system consisting of four basic elements

1. **Inputs:** These are ingredients required to initiate the transformation process. They include human, financial, material and information resources.
2. **Transformation Process:** The inputs are put through a transformation process that applies technology, operating methodologies, administrative practices and control techniques in order to produce the output.
3. **Outputs:** The output may be products and/or services, the sale of which creates profits or losses. This process also has by-product outputs such as worker behaviour, information, environmental pollution, community services and so on.
4. **Feedback:** A feedback loop is used to return the resultant environmental (public or customers) feedback to the system as inputs. A **negative feedback loop** indicates a



problem that should be corrected. For example, the failure of product design indicated by the need to recall the product. A **positive feedback loop** can identify outputs that have worked well. For example, a successful marketing campaign that yields high sales.

If the environment is satisfied with the output, business operations continue. If it is not, changes are initiated within the business systems so that requirements of the customers are fully met. This is how an open system responds to the forces of change in the environment.

OPEN SYSTEM MODEL





5. The Contingency or Situational Approach:

Another important approach which has arisen because of the inadequacy of the Quantitative, Behavioural and System Approach to management is the Contingency Approach. Pigors and Myers propagated this approach in 1950. Other contributors include Joan Woodward, Tom Burns, G.W.Stalker, Paul Lawrence, Jay Lorsch and James Thompson. They analyzed the relationship between organization and environment. They concluded that managers must keep the functioning of an organization in harmony with the needs of its members and the external forces. Management is situational and lies in identifying the important variables in a situation. The basic theme of contingency approach is that organizations have to cope with different situations in different ways. Organizations behave as situation demands. In other words, decision making is contingent on situations. As situation changes, the solutions also differ. Management problems vary with situation and require to be handled differently as situation demands. No two situations are absolutely identical. Therefore, each situation requires its own unique situation. **For example**, you may have chosen to construct building in a certain way with certain strategies, but that same approach may not work for different buildings because they require a completely different approach. The functioning of managers is not a manager's choice. It is contingent on external or internal environment or both. There cannot be particular management action which will be suitable for all situations. The management must keep the functioning of an organization in harmony with the needs of its members and the external forces.



According to Kast and Rosenzweig, –The contingency view seeks to understand the interrelationships within and among sub-system as well as between the organization and its environment and to define patterns of relationships or configurations of variables. Contingency views are ultimately directed towards suggesting organizational designs and managerial actions most appropriate for specific situations. The approach has been used in important sub systems of management like organization, design, leadership, behaviour change and operation.

Features of contingency approach

- a) Management is entirely situational. The application and effectiveness of any techniques is contingent on the situation.
- b) Management action is contingent on certain action outside the system or subsystem as the case may be.
- c) Management should, therefore, match or fit its approach to the requirements of the particular situation. To be effective management policies and practices must respond to environmental changes.
- d) Organizational action should be based on the behaviour of action outside the system so that organization should be integrated with the environment.
- e) Management should understand that there is no one hard way to manage. They must not consider management principles and techniques universal.

In order to operationalise the contingency approach, managers need to know the alternatives for different situations. It may be operationalized as a ‘if then’ approach to management. The environment (If) is an independent variable where as management (when) is a dependent variable. In this model, a manager has to take four sequential steps:

- a) Analyze and understand the situation,



- b) Examine the applicability or validity of different principles and techniques to the situation at hand,
- c) Make the right choice by matching the techniques to the situations,
- d) Implement the choice.

The IT Management Approach:

IT managers focus on the information technology resources in accordance with its needs and priorities. The resources include tangible investments like computer hardware, or intangible software, data, networks and data centre facilities, as well as the staff hired to maintain them.

Moreover, the IT manager uses the important terminology, facts, concepts, principles, analytic techniques, and theories to apply when analyzing complex actual situations and integrates when developing solutions to IT management multifaceted problems of these complex situations.

Of course, the basic management functions, like budgeting, staffing, change management, organizing and controlling are inherently embedded in this style of management, but the beauty of this style is that the management uses software design, network, planning, tech support, etc. that requires little manpower.



Examples:

- Business/IT alignment: The businesses maintain the data base of their customers to alert them asand when a service is required for them.
- E-Governance: The government can perform registrations and issue certificates. The services ofgovernment to the people can be made available at their doorsteps.
- IT financial management and service management: The tax management, complaint resolutions,property dealings, financial services, banking activities are some examples.
- Sourcing and IT enabled services: Transport services, insurance services, health services can bemanaged easily by coupling the source and destination points with IT enabled services.

Features of IT Management Approach

1. To generate value to the through technology.
 2. To generate value, business strategies and technology are aligned.
 3. The organizational relationship between internal and external environments is networked through technology to improving the overall value chain of an organization.
 4. The technology providers build product-centric infrastructure and management offerings with converged infrastructure environments.
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