LECTURE NOTES

ON

MANAGEMENT SCIENCE

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UNIT I
INTRODUCTION TO MANAGEMENT

INTRODUCTION

In the present context, managing has become one of the most important areas of human activity because of increasing role of large and complex organisations in the society. Because of their increasing role, the organisations have attracted the attention of both practitioners and academicians to find out the solutions for business problems.

Concept

Defining the term management precisely is not so simple because the term management is used in a variety of ways. Being a new discipline, it has drawn concepts and principles from a number of disciplines such as economics, sociology, psychology, anthropology, and statistics and so on.

Each group of contributors has treated management differently. For example, economists have treated management as a factor of production; sociologists have treated it as a class or group of persons; practitioners have treated it as a process comprising different activities.

DEFINITION

“Management is the art of getting things done through and with people in formally organized groups” — Koontz

“Management is the art of knowing what you want to do and then seeing that it is done in the best and cheapest way” — F.W. Taylor

“Management is the art of securing maximum results with minimum effort so as to secure maximum prosperity and happiness for both employer and employee and give the public the best possible service” — John Mee.

“Management is the accomplishment of results through the efforts of other people” — Lawrence

“Management is simply the process of decision making and control over the action of human beings for the expressed purpose of attaining pre-determined goals” — Stanley V.
“Management is a process involving planning, organizing, staffing, directing and controlling human efforts to achieve stated objectives in an organization.”

From the above definitions, the following **features** are identified:-

1) **Organised Activities**: Management is a process of organized activities. Without organized activities, two groups of people cannot be involved in the performance of activities. Where a group of people are involved in working towards a common objective, management comes into existence.

2) **Existence of objectives**: The existence of objectives is a basic criterion of every human organization because all organizations are deliberate and purposive creation and, therefore, they should have some objectives. Without objectives, it becomes difficult to define the direction where organized group of activities would lead to.

3) **Relationship among resources**: Organised activities meant to achieve common goals are brought about to establish certain relationships about the available resources. Resources include money, machine, material, men and methods. All these resources are made available to those who manage the organization. Managers apply knowledge, experience, principles for getting the desired results. Thus, the essence of management is integration of various organisational resources.

4) **Working with and through people**: Management involves working with people and getting organisational objectives achieved through them. The idea of working through people is interpreted in terms of assigning and reassigning of activities to subordinates.

5) **Decision Making**: Management process involves decision making at various levels for getting things done through people. Decision making basically involves selecting the most appropriate alternative out of the several. If there is only one alternative, there is no question of decision making.

**Nature of Management**: - The study and application of management techniques in managing the affairs of the organization have changed its nature over a period of time. The following points will describe the nature of management

1) **Multidisciplinary**: Management has been developed as a separate discipline, but it draws knowledge and concepts from various disciplines like psychology, sociology, anthropology, economics, statistics, operations research etc.,. Management integrates the idea
and concepts taken from these disciplines and presents newer concepts which can be put into practice for managing the organisations.

2) **Dynamic nature of Principles**: Principle is a fundamental truth which establishes cause and effect relationships of a function. Based on integration and supported by practical evidences, management has framed certain principles. However, these principles are flexible in nature and change with the changes in the environment in which an organization exists.

3) **Relative, Not absolute Principles**: Management principles are relative, not absolute, and they should be applied according to the need of the organization. Each organization may be different from others. The difference may exist because of time, place, socio-cultural factors, etc.,.

4) **Management: Science or Art**: There is a controversy whether management is science or art. An art is personal skill of business affairs. Art is characterized by practical knowledge, personal creativity and skill. The more one practices an art, the more professional one becomes. Management can be considered as an art because it satisfies all these criterion of an art. A science is a systematized body of knowledge of facts. It can establish cause-and-effect relationships among various factors. It involves basic principles, which are capable of universal application. Management can be considered as science because it satisfies all these criterion of a science.

5) **Management as profession**: Management has been regarded as a profession by many while many have suggested that it has not achieved the status of a profession. Profession refers to a vocation or a branch of advanced learning such as engineering or medicine.

6) **Universality of management**: Management is a universal phenomenon. However, management principles are not universally applicable but are to be modified according to the needs of the situation.

**Importance of Management**

Management has been important to the daily lives of people and to the organisations. The importance of management may be traces with the following.

1) **Effective utilisation of Resources**: Management tries to make effective utilisation of various resources. The resources are scarce in nature and to meet the demand of the society, their contribution should be more for the general interests of the society.
Management not only decides in which particular alternative a particular resource should be used, but also takes actions to utilize it in that particular alternative in the best way.

2) **Development of Resources**: Management develops various resources. This is true with human as well as non-human factors. Most of the researchers for resource development are carried on in an organized way and management is involved in these organized activities.

3) **It ensures continuity in the organization**: Continuity is very important in the organizations. Where there are no proper guidelines for decision making continuity can not be guaranteed. It is quite natural that new people join while some others retire or leave the organization. It is only management that keeps the organization continuing.

4) **Integrating various interest groups**: In the organized efforts, there are various interest groups and they put pressure over other groups for maximum share in the combined output. For example, in case of a business organization, there are various pressure groups such as shareholders, employees, govt. etc. these interest groups have pressure on an organization. Management has to balance these pressures from various interest groups.

5) **Stability in the society**: Management provides stability in the society by changing and modifying the resources in accordance with the changing environment of the society. In the modern age, more emphasis is on new inventions for the betterment of human beings. These inventions make old systems and factors mostly obsolete and inefficient. Management provides integration between traditions and new inventions, and safeguards society from the unfavorable impact of these inventions so that continuity in social process is maintained.

**Functions of Management:-**

To achieve the organisational objectives managers at all levels of organization should perform different functions. A function is a group of similar activities.

The list of management functions varies from author to author with the number of functions varying from three to eight.

<table>
<thead>
<tr>
<th>Writers</th>
<th>Management Functions</th>
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<tbody>
<tr>
<td>Henry Fayol</td>
<td>Planning, Organizing, Commanding, Coordinating, Controlling</td>
</tr>
<tr>
<td>Luther Gullick</td>
<td>POSDCORD - Planning, Organising, Staffing, Directing, Coordinating, Reporting, Directing</td>
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Different authors presented different variations. By combining some of these functions, these are broadly grouped into Planning, Organising, 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.

2) **Organising**: Organising 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 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 these ideas.

3) **Staffing**: Staffing involves manning the various positions created by the organizing process. It includes preparing inventory of personal available and identifying the sources of people, selecting people, training and developing them, fixing financial compensation, appraising them periodically etc.

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.

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.

**FAYOL’S ADMINISTRATIVE MANAGEMENT**

Henry Fayol is a French Industrialist and the father of modern operational management theory. Fayol recognized the following organizational activities.

**Organizational Activities:** Fayol divided the activities of organization into six groups---
- Technical (related to production)
- Commercial (buying, selling and exchange)
- Financial (search for capital and its optimum use)
- Security (protection of property and person)
- Accounting
- Managerial (planning, organizing, commanding, coordinating and controlling)

Among the above activities Fayol considered managerial activities are the most important for the success of business and he concentrated more on that. His contributions are divided the following categories.
- Qualities of a manager
- General principles of management
- Elements of management

**Managerial Qualities and Training:** According to Fayol the following are the list of qualities required in a manager.
- Physical (Health, Vigor and Health)
- Mental (Ability to understand and learn, judgment, mental vigor and capability)
- Moral (energy, firmness, initiative, loyalty, tact etc.,)
- Educational
- Technical (peculiar to the function being performed)
- Experience

**GENERAL PRINCIPLES OF MANAGEMENT:**

Fayol has given 14 principles of management. He has made distinction between management principles and management elements. While management principles is a fundamental truth and establishes cause effect relationship, elements of management denotes the function performed by a manager.

While giving the management principles, Fayol has emphasized two things.
1. The list of management principles is not exhaustive but suggestive and has discussed only those principles which he followed on most occasions.

2. Principles of management are not rigid but flexible

**Principles:-**

1. **Division of work:** It is helpful to take the advantage of specialization. Here, the work is divided among the members of the group based on the employees’ skills and talents. It can be applied at all levels of the organization.

2. **Authority and Responsibility:** Fayol finds authority as a continuation of official and personal factors. Official authority is derived from the manager’s position and personal authority is derived from personal qualities such as intelligence, experience, moral worth, past services, etc. Responsibility arises out of assignment of activity. In order to discharge the responsibility properly, there should be parity between authority and responsibility.

3. **Discipline:** All the personal serving in an organization should be disciplined. Discipline is obedience, application, behavior and outward mark of respect shown by employees.

4. **Unity of Command:** Unity of command means that a person should get orders from only one superior. Fayol has considered unity of command as an important aspect in managing an organization. He says that “should it be violated, authority is undermined, discipline is in jeopardy, order disturbed, and stability threatened.”

5. **Unity of Direction:** According to this principle, each group of activities with the same objective must have one head and one plan. It is concerned with functioning of the organization respecting grouping of activities or planning. Unity of direction provides better coordination among various activities to be undertaken by an organization.

6. **Subordination of individual interest to general interest:** Individual interest must be subordinate to general interest when there is conflict between the two. However factors like ambition, laziness, weakness, etc., tend to reduce the importance of general interest. Therefore, superiors should set an example in fairness and goodness.

7. **Remuneration to Personnel:** Remuneration to employees should be fair and provide maximum possible satisfaction to employees and employers. Fayol did not favor profit sharing plan for workers but advocated it for managers. He was also in favor of non-financial benefits.

8. **Centralization:** Everything which goes to increase the importance of subordinate’s role is decentralization; every thing which goes to reduce it is centralization. The degree of centralization or decentralization is determined by the needs of the company.
9. **Scalar Chain**: There should be a scalar chain of authority and of communication ranging from the highest to the lowest. It suggests that each communication going up or coming down must flow through each position in the line of authority. It can be short-circuited only in special circumstances. For this purpose, Fayol has suggested ‘gang plank’

Scalar chain and gang plank can be presented as follows

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10. **Order**: This is a principle relating to the arrangement of things and people. In material order, there should be a place for everything and everything should be in its place. Similarly, in social order, there should be the right man in the right place.

11. **Equity**: Equity is the combination of justice and kindness. Equity in treatment and behavior is liked by everyone and it brings loyalty in the organization. The application of equity requires good sense, experience and good nature.

12. **Stability of tenure**: No employee should be removed within short time. There should be reasonable security of jobs. Stability of tenure is essential to get an employee accustomed to new work and succeeding in doing it well.

13. **Initiative**: Within the limits of authority and discipline, managers should encourage their employees for taking initiative. Initiative is concerned with thinking out and execution of a plan. Initiative increases zeal and energy on the part of human beings.

14. **Esprit de corps**: It is the principle of ‘union is strength’ and extension of unity of command for establishing team work. The manager should encourage esprit de corps among his employees.

**Hawthorne experiments and human relations:**

The human relations approach was born out of a reaction to classical approach. A lot of literature on human relations has been developed. For the
first time, an intensive and systematic analysis of human factor in organisations was made in the form of Hawthorne experiments.

To investigate the relationship between productivity and physical working conditions, a team of four members Elton Mayo, White head, Roethlisberger and William Dickson was introduced by the company in Hawthorne plant. They conducted various researches in four phases with each phase attempting to answer the question raised at the previous phase. The phases are ---

1. Experiments to determine the effects of changes in illuminations on productivity. Illumination experiments (1924-27)
2. Experiments to determine the effects of changes in hours and other working conditions on productivity. (Relay assembly test room experiments 1927-28)
3. Mass interviewing programme (1928-1930)
4. Determination and analysis of social organization at work (Bank wiring observation room experiments 1931-32)

Conclusions:

- Individual workers must be seen as members of a group
- The sense of belongingness and effective management were the two secrets unfolded by the Hawthorne experiments.
- Informal or personal groups influenced the behaviour of workers on the job.
- Need for status and belongingness to a group were viewed as more important than monetary incentives or good physical working conditions
- To seek workers cooperation, the management should be aware of their social needs and cater to them. Otherwise, there is every danger that the workers ignore and turn against the interests of the organisation.

HERZBERG’S MOTIVATION – HYGIENE THEORY:

Frederick Herzberg conducted a structured interview programme to analyse the experience and feelings of 200 engineers and accountants in nine different companies in Pittsburg area, U.S.A during the structured interview, they were asked to describe a few previous job experiences in which they felt ‘exceptionally good’ or exceptionally bad about jobs.

In his analysis, he found that there are some job conditions which operate primarily to dissatisfy employees when the conditions are absent, however their presence does not motivate them in a strong way. Another set
of job conditions operates primarily to build strong motivation and high job satisfaction, but their absence rarely proves strongly dissatisfying.

The first set of job conditions has been referred to as maintenance or hygiene factors and second set of job conditions as motivational factors.

**Hygiene Factors:**
According to Hertzberg, there are 10 maintenance factors. These are company policy and administration, technical supervision, salary, job security, personal life, status, working conditions, interpersonal relationship with superiors, interpersonal relationship with peers and interpersonal relationship with subordinates.

These maintenance factors are necessary to maintain at a reasonable level of satisfaction in employees. Any increase beyond this level will not produce any satisfaction to the employees: however, any cut below this level will dissatisfy them.

**Motivational Factors:**
These factors are capable of having a positive effect on job satisfaction often resulting in an increase in ones total output. Hertzberg includes six factors that motivate employees. These are achievement, recognition, advancement; work itself, possibility of growth and responsibility.

Most of the above factors are related with job contents. An increase in these factors will satisfy the employees: however, any decrease in these factors will not affect their level of satisfaction. Since, these increased level of satisfaction in the employees, can be used in motivating them for higher output.

**Relations Movement:**

**Human relations movement** refers to the researchers of organizational development who study the behavior of people in groups, in particular workplace groups and other related concepts in fields such as industrial and organizational psychology. It originated in the 1930s' Hawthorne studies, which examined the effects of social relations, motivation and employee satisfaction on factory productivity. The movement viewed workers in terms of their psychology and fit with companies, rather than as interchangeable parts, and it resulted in the creation of the discipline of human resource management.

**System Theory:**

A system is a set of interrelated but separate parts working towards a common purpose. The arrangement of elements must be orderly and there must be proper communication facilitating interaction between the elements
and finally this interaction should lead to achieve a common goal. Churchman west is one of the pioneers of system approach of management. Systems-oriented managers would make decisions only after they have identified impact of these decisions on other department and the entire organization.

The essence of the system approach is that each manager cannot function in isolated and within his organizational boundary of authority and responsibility of the traditional organizational chart. They must interlink their departments with the total organization and communicate with all other departments and employees and also with other organizations. Many of the concepts of general systems theory are finding their way into the language of management. Managers need to be familiar with the systems vocabulary so they can keep pace with current development:

1) **Sub-System**: The parts that make up the whole of a system are called sub-systems. And each system in turn may be a sub-system of a still larger whole. Thus a department is a sub-system of a plant, which may be a sub-system a company, which may be a sub-system of a conglomerate or an industry, which is a sub-system of the national economy, which is a sub-system of the world system.

2) **Synergy**: This means that the whole is greater than the sum of its parts. In organizational terms, synergy means that as separate departments within an organization cooperate and interact, they become more efficient than if each were to act in isolation. For example, in a small firm, it is more efficient for each department to deal with one financial department than for each department to have a separate finance department of its own.

3) **Open and closed system**: A system is considered an open system if it interacts with its environment; it is considered a closed system if it does not. All organization interacts with their environment, but the extent to which they do so varies. For example, an automobile plant is far more open system than a monastery or prison.

4) **System Boundary**: Each system has a boundary that separates it from its environment. In a closed system, the system boundary is rigid; in an open system, the boundary is more flexible. The system boundaries of many organizations have become increasingly flexible in recent years. For example, managers at oil companies wishing to engage in offshore drilling must consider public concern for the environment. A trend is that American communities are demanding more and more environment responsibility from companies. For example, Santa Rosa, California, a city of 125,000 treats environment violations such as “off-gassing” a waste product, i.e., allowing it to evaporate into the atmosphere, as a potential criminal offence.

5) **Flow**: A system has flows of information, materials and energy (including human energy). These enter the system from the environment as inputs
(e.g., raw materials) undergo transformation processes within the system (operations that alter them) and exit system as outputs (goods and service).

6) **Feedback:** This is the key to system controls. As operations of the system proceed, information is fed back to the appropriate people and perhaps to a computer, so that the work can be assessed and if necessary, corrected. For Example, when Aluminum Company of America began feeding production data back to the factory floor, workers in the Add, Washington, Magnesium plant quickly observed ways to improve operations, boosting productivity by 72%. Systems theory calls attention to the dynamic and interrelated nature of organization and the management task. Thus, it provides a framework within which one can plan actions and anticipate both immediate and far-reaching consequences, while allowing understanding unanticipated consequences as they develop. With a systems perspective, general managers can more easily maintain a balance between the needs of the various parts of the enterprise and the needs goals of the whole firm. “It depends” is an appropriate response to the important questions in management as well. Management theory attempts to determine the predictable relationship between situations, actions and outcomes. So it is not surprising that a recent approach seeks to integrate the various schools of management thought by focusing on the interdependence of the many factors involved in the managerial situation.

**Contingency Theory:**

The contingency approach to management holds that management techniques should be dependent upon the circumstances. In this lesson, you will learn what the contingency approach to management is and the key elements of contingency management.

**Definition:** A contingency approach to management is based on the theory that management effectiveness is contingent, or dependent, upon the interplay between the application of management behaviours and specific situations. In other words, the way you manage should change depending on the circumstances. One size does not fit all.

**Theory:** The contingency approach to management finds its foundation in the contingency theory of leadership effectiveness developed by management psychologist Fred Fielder. The theory states that leadership effectiveness, as it relates to group effectiveness, is a component of two factors: task motivation, or relation motivation, and circumstances. You measure task motivation, or relation motivation, by the least preferred co-worker (LPC) scale. The LPC scale asks the manager to think of the person they least liking working with and then rate that person on a set of questions, each involving an 8-point scale. For example, a score of one would be uncooperative, and a score of eight would be cooperative. Fielder believed that people with a higher LPC score try to maintain harmony in
their work relationships, while people with a lower LPC score are motivated to focus on task accomplishment.

The theory states that task or relations motivations is contingent upon whether the manager is able to both control and effect the group's situational favourability, or outcome. According to the theory, you can assess situational favourability by three factors:

- **Leader-member relations**: This factor addresses the manager's perception of his cooperative relations with his subordinates. In other words, is the cooperation between you and your employees good or bad?

- **Task structure**: This factor relates to whether the structure of the work task is highly structured, subject to standard procedures and subject to adequate measures of assessment. Certain tasks are easy to structure, standardize and assess, such as the operation of an assembly line.

- **Position power**: This factor asks if the manager's level of authority is based on punishing or rewarding behavior. For example, does the manager derive his authority from providing bonuses for meeting sales goals or terminating employees for failure to meet the goals. The combination of leader-member relations, task structure and position power create different situations that have been coined octants one through eight. You can divide these eight situations into three broad categories: favourable situations, intermediate situations and unfavourable situations. According to the theory, each situation is handled the best by either high or low LPC managers. The theory argues that high LPC managers are most effective at influencing employee group behavior in intermediate situations, while low LPC managers are most effective in favourable or unfavourable situations.

**Monetary and Non-Monetary incentives to motivate work teams:**

The motivational factors that motivate a person to work and which can be used to enhance their performance can be classified into two categories—monetary factors and non-monetary factors

**Monetary Factors:**

**Monetary factors are extrinsic to work, such as the following:**

1. **Salary or wages:**
   This is one of the most important motivational factors in an organization. Salaries and wages should be fixed reasonably and paid on time.

2. **Bonus:**
   Bonus is an extra payment over and above salary, and it acts as an incentive to perform better. It is linked to the profitability and productivity of the organization.
3. **Financial incentives:**
The organization provides additional incentives to their employees such as medical allowance, travelling allowance, house rent allowance, hard duty allowance and children educational allowance.

4. **Promotion (monetary part):**
Promotion is attached with increase in pay, and this motivates the employee to perform better.

5. **Profit sharing:**
This is an arrangement by which organizations distribute compensation based on some established formula designed around the company’s profitability.

6. **Stock option:**
This is a system by which the employee receives shares on a preferential basis which results in financial benefits to the employees.

**Non-monetary Factors:**
Non-monetary factors are rewards intrinsic to work, such as the following:

1. **Status:**
An employee is motivated by better status and designation. Organizations should offer job titles that convey the importance of the position.

2. **Appreciation and recognition:**
Employees must be appreciated and reasonably compensated for all their achievements and contributions.

3. **Work-life balance:**
Employees should be in a position to balance the two important segments of their life—work and life. This balance makes them ensure the quality of work and life. A balanced employee is a motivated employee.

4. **Delegation:**
Delegation of authority promotes dedication and commitment among employees. Employees are satisfied that their employer has faith in them and this motivates them to perform better.

5. **Working conditions:**
Healthy working conditions such as proper ventilation, proper lighting and proper sanitation improve the work performance of employees.
6. **Job enrichment:**
This provides employees more challenging tasks and responsibilities. The job of the employee becomes more meaningful and satisfying.

7. **Job security:**
This promotes employee involvement and better performance. An employee should not be kept on a temporary basis for a long period.

**LEADERSHIP**

**CONCEPT:** Leadership is the process of influencing the behaviour of other to work willingly and enthusiastically for achieving predetermined goals.

**DEFINITION:** “Leadership is interpersonal influence exercised in a situation and directed through communication process, towards the attainment of a specified goal or goals”. – Tennenbaum.

“Leadership is the process of influencing and supporting others to work enthusiastically toward achieving objectives”. – Barnard Key.

**Qualities of successful Leader:**

1. A good leader has an exemplary character. It is of utmost importance that a leader is trustworthy to lead others. A leader needs to be trusted and be known to live their life with honesty and integrity. A good leader “walks the talk” and in doing so earns the right to have responsibility for others. True authority is born from respect for the good character and trustworthiness of the person who leads.

2. A good leader is enthusiastic about their work or cause and also about their role. People will respond more openly to a person of passion and dedication. Leaders need to be able to be a source of inspiration, and be a motivator towards the required action or cause. Although the responsibilities and roles of a leader may be different, the leader needs to be seen to be part of the team working towards the goal. This kind of leader will not be afraid to roll up their sleeves and get dirty.

3. A good leader is confident. In order to lead and set direction a leader needs to appear confident as a person and in the leadership role. Such a person inspires confidence in others and draws out the trust and best efforts of the team to complete the task well. A leader who conveys confidence towards the proposed objective inspires the best effort from team members.
4. A leader also needs to function in an orderly and purposeful manner in situations of uncertainty. People look to the leader during times of uncertainty and unfamiliarity and find reassurance and security when the leader portrays confidence and a positive demeanor.

5. Good leaders are tolerant of ambiguity and remain calm, composed and steadfast to the main purpose. Storms, emotions, and crises come and go and a good leader takes these as part of the journey and keeps a cool head.

6. A good leader as well as keeping the main goal in focus is able to think analytically. Not only does a good leader view a situation as a whole, but is able to break it down into sub parts for closer inspection. Not only is the goal in view but a good leader can break it down into manageable steps and make progress towards it.

7. A good leader is committed to excellence. Second best does not lead to success. The good leader not only maintains high standards, but also is proactive in raising the bar in order to achieve excellence in all areas.

**LEADERSHIP STYLES:**

Leadership styles are the patterns of behaviour which a leader adopts in influencing the behaviour of his subordinates. Based on the degree of authority used by the supervisors, there are three leadership styles.

**1. Autocratic Leadership:** It is also known as authoritarian, directive or monothetic style. In autocratic leadership style, a manager centralizes decision-making power in him. He structures the complete situation for his employees and they do what they are told. Here the leadership may be negative because followers are uninformed, insecure, and afraid if the leader’s authority.

**Advantages:**
1. It provides strong motivation and reward to a manager exercising this style.
2. It permits very quick decisions as most of the decisions are taken by a single person.
3. Strict discipline will be maintained.
4. Less competent subordinates also have scope to work in the organisation under his leadership style.

**Disadvantages:**
1. Employees lack motivation; Frustration, low morale and conflict develop in the organisation.
2. There is more dependence and less individuality in the Organisation. As such future leaders in the organisation do not develop.
3. People in the organisation dislike it specially when it is strict and the motivational style is negative.

1. **Participative Leadership:**
   This style is also called democratic, consultative or ideographic. A participative is defined as mental and emotional involvement of a person in a group situation which encourages him to contribute to group goals and share responsibility in them. A participative manager decentralizes his decision-making process, instead of taking unilateral decisions, he emphasis on consultation and participation of his subordinates.

2. **Free Rein Leadership:**
   Free Rein or lassie – faire technique means giving complete freedom to subordinates. In this style, manager once determines policies, programmes and limitations for action and the entire process is left to subordinates. Group member’s person everything and the manager usually maintains contacts with outside persons to bring the information and materials which the group needs.

**LEADERSHIP STYLES:** - Leadership styles refer to a leader’s behaviour. Behavioral pattern which the leader reflects in his role as a leader is often described as the style of leadership. It is the result of the philosophy, personality and experience of the leader. The important leadership styles are as follows:-

1. Autocratic (or) Authoritarian leaders
2. Participative (or) Democratic leaders
3. Free rein (or) Laisser faire leaders

**Autocratic Leadership Style:** - This is also known as authoritarian, directive style. In this style manager centralizes decision-making power in him. He structures the complete work situation for his employees. He does not entertain and suggestions or initiative from subordinates. He gives orders and assigns tasks without taking subordinates opinion. There are three categories of autocratic leaders.

**Strict Autocrat:** - He follows autocratic styles in a very strict sense. His method of influencing subordinates behaviour is through negative motivation that is by criticizing subordinates, imposing penalty etc...

**Benevolent Autocrat:** - He also centralizes decision making power in him, but his motivation style is positive. He can be effective in getting efficiency
in man situations. Some like to work under strong authority structure and they drive satisfaction by this leadership.

**Incompetent autocrat:** - Sometimes, superiors adopt autocratic leadership style just to hide their in competency, because in other styles they may exposed before their subordinates. However, this cannot be used for a long time.

**Advantages:**
1. It provides strong motivation and reward to manager.
2. It permits very quick decisions.
3. Less competent subordinates also have scope to work in the organisation.

**Disadvantages:**
1. People in the organisation dislike it specially when it is strict and the motivational style is negative.
2. Employees lack motivation frustration, low morale and conflict develops in the organisation.
3. There is more dependence and less individuality in the organisation.

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**Participative Leadership Style:** - It is also called as democratic, consultative or idiographic leadership style. In this style the manager decentralizes his decision-making process. Instead of taking unilateral decision he emphasizes consultation and participation of his subordinates. He can win the cooperation of his group and can motivate them effectively and positively.

**Advantages:**
1. Employees are highly motivated.
2. The productivity of employees is very high.
3. Subordinates share the responsibility with the superior and try to safeguard them also.
**Disadvantages:-**
1. Complex nature of organisation requires as through understanding of its problems which lower-level employees may not be able to do.
2. Some people in the organisation want minimum interaction with their superior.
3. Some leaders may use this style as a way of avoiding responsibility.

![Diagram of organizational structure]

**Free-rein Leadership:-** A free-rein leader does not lead, but leaves the group entirely to itself as shown in the following figure.

![Diagram of free-rein leadership]

In this style, manager once determines policy, programmes, and limitations for action and the entire process is left to subordinates. Group members perform everything and the manager usually maintains contacts with outside persons to bring the information and materials which the group needs.
The following figure shows the spectrum of a wide variety of leadership styles moving from a very authoritarian style at one end to a very democratic style at the other end, as suggested by Tannenbaum and warren H.schmidt.

<table>
<thead>
<tr>
<th>Autocratic</th>
<th>Democratic</th>
<th>Free Rein</th>
</tr>
</thead>
</table>

- **Use of Authority**
- **Area of freedom permitted to subordinates**
INTRODUCTION:

“Management is a process involving planning, organizing, directing and controlling human efforts to state of objectives in an organization.”

The second phase of management process is organizing, which basically involves analysis of activities to be performed for achieving organizational objectives, grouping these activities into various division, departments and sections so that these can be assigned to various individuals and delegating them appropriate authority so that they are able to carry on their work effectively.

CONCEPT OF ORGANISATION AND ORGANISING:

In management literature, sometimes the term organisation and organizing are used interchangeably because the term organisation is used in many ways. But it is not correct organisation is different from organising. Organising is one of the functions of management where as organisation refers to the institution where in the functions of management is performed.

Organising is a process of –

- Determining, grouping and structuring the activities.
- Creating rules for effective performance at work.
- Allocation necessary authority and responsibility.
- Determining detailed procedures and systems for different problems areas such as coordination, communication motivation etc.

The ultimate result of organising is organisation. In other words, organising function ends with creating a structure of relationships.

FORMAL AND INFORMAL ORGANISATION:

Formal organisation refers to the structure of well-defined jobs, each bearing a definite authority, responsibility and accountability.

CHARACTERISTICS:

1. Organisation structure is designed by the top management to fulfill certain requirements.
2. Coordination among members and their control are well specified through process, procedures rules etc.
3. Organisation concentrates more on the performance of jobs and not on the individuals performing the jobs.

Informal organisation refers to the natural grouping of people on the basis of some similarity in an organisation.

“It refers to people in group associations at work, but these associations are not specified in the blue print of the formal organisation, the informal organisation means natural grouping of people in the work situations”.
CHARACTERISTICS:
- Informal organisation is a natural outcome at the workplace.
- Informal organisation is created on the basis of some similarity among its members. The basis of similarity may be age, place of origin, caste, religion, liking/disliking etc.
- Membership is an informal organisation is voluntary.
- Behavior of members of the informal organisation is coordinated and controlled by group norms and not by the norms of formal organisation.

TYPES OF ORGANIZATIONAL STRUCTURES:

LINE ORGANISATION STRUCTURE
It is also known as scalar, military, or vertical organisation and perhaps is the oldest form. In this form of organisation managers have direct responsibility for the results; line organisation can be designed in two ways.

1. PURE LINE ORGANISATION:
Under this form, similar activities are performed at a particular level. Each group of activities is self-contained unit and is able to perform the assigned activities without the assistance of others.

2. DEPARTMENTAL LINE ORGANISATION:
Under this form, entire activities are divided into different departments on the basis of similarity of activities. The basic objective of this form is to have uniform control, authority and responsibility.

<table>
<thead>
<tr>
<th>Merits</th>
<th>Demerits</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) It is simple to understand</td>
<td>1) Lack of specialization</td>
</tr>
<tr>
<td>2) Easy supervision &amp; control</td>
<td>2) Low – Morale</td>
</tr>
<tr>
<td>3) Quick decisions</td>
<td>3) Autocratic approach</td>
</tr>
<tr>
<td>4) It sets clearly the direct lines of authority and responsibility of a line manager</td>
<td>4) Overburden to manager</td>
</tr>
</tbody>
</table>
**Suitability:** - It is suitable to small – scale organizations where the number of subordinates is quite small

**LINE AND STAFF ORGANISATION:**
It refers to a pattern in which staff specialists advise line managers to perform their duties. When the work of an executive increases its performance requires the services of specialists which he himself can not provide because of his limited capabilities on these matters. Such advise is provided to line managers by staff personal who are generally specialists in their fields. The staff people have the right to recommend, but have no authority to enforce their preference on other departments.

**FEATURES:**
- This origin structure clearly distinguishes between two aspects of administration viz., planning and execution.
- Staff officers provide advice only to the line officers; they do not have any power of command over them.
- The staff supplements the line members.

**MERITS**
1. It enhances the quality of decision
2. Greater scope for advancement
3. It relieves the line managers.
4. Reduction of burden.

**DEMERITS**
1. It may create more friction or Conflict between line and staff
2. It is expensive
3. It creates confusion

**SUITABILITY:** - It can be followed in large organizations where specialization of activities is required, because it offers ample opportunities for specialization.
FUNCTIONAL ORGANISATION STRUCTURE:-
It is the most widely used organization structure in the medium and large scale organizations having limited number of products. This structure emerges from the idea that the organization must perform certain functions in order to carry on its operations. Functional structure is created by grouping the activities on the basis of functions required for the achievement of organizational objectives. For this purpose, all the functions required are classified into basic, secondary and supporting functions according to their nature & importance.

FEATURES:

1) The whole activities of an organisation are divided into various functions
2) Each functional area is put under the charge of one executive
3) For any decision, one has to consult the functional specialist

<table>
<thead>
<tr>
<th>MERITS</th>
<th>DEMERITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Planned specialization</td>
<td>1) calls for more coordination</td>
</tr>
<tr>
<td>2) Facilitates large scale production</td>
<td>2) no clear line of authority</td>
</tr>
<tr>
<td>3) Disciplinary controls are well defined</td>
<td>3) slow decision making</td>
</tr>
<tr>
<td>4) Offers clear career paths</td>
<td>4) lack of responsibility</td>
</tr>
</tbody>
</table>

COMMITTEE ORGANISATION: -

A committee does not represent a separate type of organization like line and staff, or functional. It is rather a device which is used as supplementary to or in addition to any of the above types of organizations.

A committee may be defined as a group of people performing some aspects of Managerial functions. Thus, a committee is a body of persons appointed or elected for the Consideration of specific matters brought before it.
MATRIX ORGANISATION

It is also called project organization. It is a combination of all relationships in the organization, vertical, horizontal and diagonal. It is a mostly used in complex projects. The main objective of Matrix organisation is to secure a higher degree of co-ordination than what is possible from the conventional, organizational structures such as line and staff.

In matrix organization structure, a project manager is appointed to co-ordinate the activities of the project. Under this system a subordinate will get instructions from two or more bosses, Viz., administrative head and his project manager.

Merits
1. It offers operational freedom & flexibility
2. It focuses on end results.
3. It maintenance professional Identity.
4. It holds an employee responsible for management of resources.

Demerits:-
1. It calls for greater degree of coordination,
2. It violates unity of command.
3. Difficult to define authority & responsibility.
4. Employee may be de motivated.
**Suitability:**
It can be applicable where there is a pressure for dual focus, pressure for high in formation processing, and pressure for shred resources.
Ex:- Aerospace, chemicals, Banking, Brokerage, Advertising etc.,

**Virtual Organisation**
Virtual organisations facilitate competitiveness particularly when these organisations are part of the global economy. Here, there can be alliances and partnerships with other organisations almost all over world. It is a flexible Organisation structure that removes the traditional boundaries. It allows easy reassignment and reallocation of resources to take quick advantage of shifting opportunities in global markets. To avoid disintegration and to attain the effective needed focus, the lead virtual organisations must have a shared vision, strong brand and high trust culture.

The virtual Organisation is a temporary network of companies that come together quickly to exploit fast changing opportunities. Virtual Organisations appear to be bigger than traditional organisations. As virtual organising requires a strong information technology (IT) platform. The boundaries that traditionally separate a firm from its suppliers, customers and even competitors are largely eliminated, temporarily and in respect to a given transaction or business purpose. Virtual Organisations come into being 'as needed' when alliances are called into action to meet specific operating needs and objectives. When the task is complete, the alliance rests until next called into action. Each partner in the alliance contributes to the virtual Organisation what it is best at-its core competence.
**Cellular Organisation**

Organisation structured around the units/cells that complete the entire assembly processes are called cellular organisations. In the modern organisations, cellular Organisations have been replacing the continuous line or linear production process systems. In cellular organisations, workers manufacture total product or subassemblies in teams (cells).

Every team (cell) of workers has the responsibility to improve or maintain the quality and quantity of its products. Each team is free to reorganise itself to improve performance and product quality. These cells comprise self-managed teams. They monitor themselves and also correct where necessary on their own. Cellular Organisations are characterised by much smaller staff all over the Organisation with middle management positions reduced and lean management members at the top. It is both a lean and flat structure.

**Team Structure**

A structure in which the entire organisation is made up of work groups or teams is known as team structure. Team structures are both permanent and also temporary in nature as situation demands. Traditional Organisations are characterized by vertical structures and modern Organisations are identified by the horizontal i.e., team structures. 'We report to each other' is the main feature of team structure.

It leads to boundaryless Organisation in a borderless world. In team structures, we find cross functional teams meant for improving lateral relations, solving problems, completing special projects and accomplishing routine tasks. A cross functional team comprises members from different functional departments such as marketing, finance, HR, production etc. Project teams are convened for a particular task or project and these get dissolved once task is completed. The intention here is to quickly bring together the people with the needed talents and focus their efforts intensely to solve a problem or take advantage of a special opportunity. Here employees are more involved and empowered because of reduced barriers among functional areas. Sometimes, when there is pressure on teams to perform and there is no clear chain of command, team structures fail to deliver results.

**Boundary Less Organization:**

**Problems** with traditional organizational structures:

1. Lack of flexibility to changing mission needs/rapidly changing world.
2. Slow/poor in responding customer requirement.
3. Failure to get things to done.
4. Customer/vendor has a hard time dealing with the organization.

**What are the boundaries?**

- **Vertical:** Boundaries between layers within an organization.
- **Horizontal:** Boundaries which exist b/w organizational departments.
- **External:** Barriers between the organization and the out side world. (Customers, suppliers other govt. committees).
- **Geographic:** Barriers among organization units located in different countries.
**Problem:** isolation of innovative practices & ideas.

What is boundary less Organisation?
It may be defined as an organisation structure that can avoid all the barriers (vertical, horizontal, external, geographic) much more permeable than they are now; Boundary less organisation allows free flow of ideas/information / resources throughout the organisation and into others.

A boundary less organisation is the opposite of a bureaucracy with numerous barriers and division. In contrast, the organisation with out boundaries offers interaction and networking among professionals inside and outside the organisation. The organisation model is fluid and highly adaptive, much like an open system in biology.

Jack Welch, former CEO of General Electric, stated his vision for the company as a "boundaryless company”. By this he meant an “open, anti-parochial environment, friendly toward the seeking and sharing of new ideas, regardless of their origin.” The purpose of this initiative was to remove barriers between the various departments as well as between domestic and international operations. To reward people for adopting the “integration model,” bonuses were awarded to those who not only generated new ideas but also shared them with others.

**Inverted Pyramid structure:**

The traditional business is styled within form of a pyramid along with the chief executive officer at the top, senior executives underneath, and many more. There are several layers in the management structure, that reflects who reports to whom. In the inverted management pyramid display in figure, customers have the most significant role in driving the business. It also provides the front line employees a same ability as they are closest to the customers. Because the customers are considered basic, it also helps to improve the business. A flow of communication from the customers and inside the enterprise improves vastly. At one the inverted pyramid idea is accepted, a role of management requires undergoing a change: From a commanding role, it shall become a supporting one

![Inverted Pyramid structure](image)

**Lean and flat organization structure:**

**Lean Organizational Structure:**

Large, complex organizations often require a taller hierarchy. In its simplest form, a tall structure results in one long chain of command similar to the military. As an organization grows, the number of management levels increases and the structure grows taller. In a tall structure, managers form many ranks and each has a small area of control. Although tall structures have more management levels than flat structures, there is no definitive number that draws a line between the two.
**Flat Organizational Structure:**

Flat structures have fewer management levels, with each level controlling a broad area or group. Flat organizations focus on empowering employees rather than adhering to the chain of command. By encouraging autonomy and self-direction, flat structures attempt to tap into employees’ creative talents and to solve problems by collaboration.

**DEPARTMENTATION AND DECENTRALIZATION:**

The first task in designing an organisation structure is the identification of activities and to group them properly. The process of grouping the activities is known as Departmentation.

The process of grouping of activities into units for the purpose of administration is called departmentation. It can be defined "as the process by which activities or functions of enterprise are grouped homogeneously into different groups."

The administrative units are called divisions, units or departments. The followings are the basis of departmentation:

(a) When departmentation is done on the back of functions the departments created are production, marketing, accounting, and finance and personnel departments.
(b) When departmentation is done on the basis of geographical area, the departments are known as eastern department, western department, northern and southern department.
(c) Departmentation can be done on the basis of customers.
(d) Departmentation can be done on the basis of product handled.

Decentralization or decentralisation is the process of redistributing or dispersing functions, powers, people or things away from a central location or authority. While centralization, especially in the governmental sphere, is widely studied and practiced, there is no common definition or understanding of decentralization. The meaning of decentralization may vary in part because of the different ways it is applied. Concepts of decentralization have been applied to group dynamics and management science in private businesses and organizations, political science, law and public administration, economics and technology.

**AUTHORITY AND RESPONSIBILITY:**

Authority may be defined as the power to make decisions which guide the actions of another. It is a relationship between two individuals, one superior, other subordinate. The superior frames and transmits decisions with the expectation that these will be accepted by the subordinate.

Responsibility is defined as that obligation of an individual to carry out assigned activities to the best of his ability. It is not merely duty that is assigned but an obligation that the duty is performed.

**PARITY OF AUTHORITY AND RESPONSIBILITY:**

Principle of authority and responsibility suggests that authority of a person should match his responsibility. Otherwise, the performance of the managers goes unchecked where the authority exceeds the responsibility. It may lead to miss-utilization of authority and vice-versa.
DELEGATION OF AUTHORITY:
Delegation of authority is one of the important factors in the process of organising. It is essential to the existence of a formal organisation. Delegation means conferring authority from one manager to another in order to accomplish particular assignments.

CENTRALISATION AND DECENTRALISATION:
Another highly important issue in organising is the extent to which authority is centralized, or decentralized, in a formal organisation structure. In management centralization refers to concentration of authority and decentralization refers to dispersion of authority.

Principles For Effective Delegation Of Authority:

There are a few guidelines in form of principles which can be a help to the manager to process of delegation. The principles of delegation are as follows: -

1. **Principle of result excepted**- suggests that every manager before delegating the powers to the subordinate should be able to clearly define the goals as well as results expected from them. The goals and targets should be completely and clearly defined and the standards of performance should also be notified clearly. For example, a marketing manager explains the salesmen regarding the units of sale to take place in a particular day, say ten units a day have to be the target sales. While a marketing manager provides these guidelines of sales, mentioning the target sales is very important so that the salesman can perform his duty efficiently with a clear set of mind.

2. **Principle of Parity of Authority and Responsibility**- According to this principle, the manager should keep a balance between authority and responsibility. Both of them should go hand in hand. According to this principle, if a subordinate is given a responsibility to perform a task, then at the same time he should be given enough independence and power to carry out that task effectively. This principle also does not provide excessive authority to the subordinate which at times can be misused by him. The authority should be given in such a way which matches the task given to him. Therefore, there should be no degree of disparity between the two.

3. **Principle of absolute responsibility**- This says that the authority can be delegated but responsibility cannot be delegated by managers to his subordinates which means responsibility is fixed. The manager at every level, no matter what is his authority, is always responsible to his superior for carrying out his task by delegating the powers. It does not means that he can escape from his responsibility. He will always remain responsible till the completion of task.

   Every superior is responsible for the acts of their subordinates and are accountable to their superior therefore the superiors cannot pass the blame to the subordinates even if he has delegated certain powers to subordinates example if the production manager has been given a work and the machine breaks down. If repairingmen is not able to get repair work done, production manager will be responsible to CEO if their production is not completed.

4. **Principle of Authority level**- This principle suggests that a manager should exercise his authority within the jurisdiction/framework given. The manager should be forced to consult their superiors with those matters of which the authority is not
given that means before a manager takes any important decision, he should make sure that he has the authority to do that on the other hand, subordinate should also not frequently go with regards to their complaints as well as suggestions to their superior if they are not asked to do. This principle emphasizes on the degree of authority and the level upto which it has to be maintained.
UNIT –III
HUMAN RESOURCES AND MATERIAL MANAGEMENT

Concept of HRM:
Before we define HRM, it seems pertinent to first define the term ‘human resources’. In common parlance, human resources means the people. However, different management experts have defined human resources differently. For example, Michael J. Jucius has defined human resources as “a whole consisting of inter-related, inter-dependent and interacting physiological, psychological, sociological and ethical components”.
According to Leon C. Megginson “From the national point of view human resources are knowledge, skills, creative abilities, talents, and attitudes obtained in the population; whereas from the view-point of the individual enterprise, they represent the total of the inherent abilities, acquired knowledge and skills as exemplified in the talents and aptitude of its employees.
Let us now define human resource management.
In simple words, HRM is a process of making the efficient and effective use of human resources so that the set goals are achieved. Let us also consider some important definitions of HRM.
According to Flippo “Personnel management, or say, human resource management is the planning, organising, directing and controlling of the procurement development compensation integration, 4intenance, and separation of human resources to the end that individual, organisational and social objectives are accomplished”.

Objectives:
The primary objective of HRM is to ensure the availability of right people for right jobs so as the organisational goals are achieved effectively.
This primary objective can further be divided into the following sub-objectives:
1. To help the organisation to attain its goals effectively and efficiently by providing competent and motivated employees.
2. To utilize the available human resources effectively.
3. To increase to the fullest the employee’s job satisfaction and self-actualization.
4. To develop and maintain the quality of work life (QWL) which makes employment in the organization a desirable personal and social situation.
5. To help maintain ethical policies and behavior inside and outside the organization.
6. To establish and maintain cordial relations between employees and management.
7. To reconcile individual/group goals with organizational goals.
Functions of Human Resource Management

Human Resource Management functions can be classified in following two categories:
Managerial Functions, and
Operative Functions.

The Managerial Functions of Human Resource Management are as follows:
1. Human Resource Planning - In this function of HRM, the number and type of employees needed to accomplish organisational goals is determined. Research is an important part of this function, information is collected and analysed to identify current and future human resource needs and to forecast changing values, attitude, and behaviour of employees and their impact on organisation.

2. Organising - In an organisation tasks are allocated among its members, relationships are identified, and activities are integrated towards a common objective. Relationships are established among the employees so that they can collectively contribute to the attainment of organisation goal.

3. Directing - Activating employees at different level and making them contribute maximum to the organisation is possible through proper direction and motivation. Taping the maximum potentialities of the employees is possible through motivation and command.

4. Controlling - After planning, organising, and directing, the actual performance of employees is checked, verified, and compared with the plans. If the actual performance is found deviated from the plan, control measures are required to be taken.

The Operative Functions of Human Resource Management are as follows:
1. Recruitment and Selection - Recruitment of candidates is the function preceding the selection, which brings the pool of prospective candidates for the organisation so that the management can select the right candidate from this pool.

2. Job Analysis and Design - Job analysis is the process of describing the nature of a job and specifying the human requirements like qualification, skills, and work experience to perform that job. Job design aims at outlining and organising tasks, duties, and responsibilities into a single unit of work for the achievement of certain objectives.

3. Performance Appraisal - Human resource professionals are required to perform this function to ensure that the performance of employee is at acceptable level.

4. Training and Development - This function of human resource management helps the employees to acquire skills and knowledge to perform their jobs effectively. Training and development programs are
organised for both new and existing employees. Employees are prepared for higher level responsibilities through training and development.

5. **Wage and Salary Administration** - Human resource management determines what is to be paid for different type of jobs. Human resource management decides employees compensation which includes - wage administration, salary administration, incentives, bonuses, fringe benefits, and etc,.

6. **Employee Welfare** - This function refers to various services, benefits, and facilities that are provided to employees for their well being.

7. **Maintenance** - Human resource is considered as asset for the organisation. Employee turnover is not considered good for the organisation. Human resource management always try to keep their best performing employees with the organisation.

8. **Labour Relations** - This function refers to the interaction of human resource management with employees who are represented by a trade union. Employees comes together and forms an union to obtain more voice in decisions affecting wage, benefits, working condition, etc,.

9. **Personnel Research** - Personnel researches are done by human resource management to gather employees' opinions on wages and salaries, promotions, working conditions, welfare activities, leadership, etc,. Such researches helps in understanding employees satisfaction, employees turnover, employee termination, etc,.

10. **Personnel Record** - This function involves recording, maintaining, and retrieving employee related information like - application forms, employment history, working hours, earnings, employee absents and presents, employee turnover and other other data related to employees.

**Human Resources Planning:**

Human resource is the most important asset of an organization. Human resources planning are the important managerial function. It ensures the right type of people, in the right number, at the right time and place, who are trained and motivated to do the right kind of work at the right time, there is generally a shortage of suitable persons. The enterprise will estimate its manpower requirements and then find out the sources from which the needs will be met. If required manpower is not available then the work will suffer. Developing countries are suffering from the shortage of trained managers. Job opportunities are available in these countries but properly trained personnel are not available. These countries try to import trained skill from other countries. In order to cope human resource requirements, an enterprise will have to plan in advance its needs and the sources. The terms human resource planning and manpower planning are generally used interchangeably. Human resource planning is not a substitute
for manpower planning. Rather the latter is a part of the former i.e., manpower planning is integrated with human resource planning.

**Features of Human Resource Planning:**
1. **Well Defined Objectives:** Enterprise’s objectives and goals in its strategic planning and operating planning may form the objectives of human resource planning. Human resource needs are planned on the basis of company’s goals. Besides, human resource planning has its own objectives like developing human resources, updating technical expertise, career planning of individual executives and people, ensuring better commitment of people and so on.

2. **Determining Human Resource Needs:** Human resource plan must incorporate the human resource needs of the enterprise. The thinking will have to be done in advance so that the persons are available at a time when they are required. For this purpose, an enterprise will have to undertake recruiting, selecting and training process also.

3. **Keeping Manpower Inventory:** It includes the inventory of present manpower in the organization. The executive should know the persons who will be available to him for undertaking higher responsibilities in the near future.

4. **Adjusting Demand and Supply:** Manpower needs have to be planned well in advance as suitable persons are available in future. If sufficient persons will not be available in future then efforts should be made to start recruitment process well in advance. The demand and supply of personnel should be planned in advance.

5. **Creating Proper Work Environment:** Besides estimating and employing personnel, human resource planning also ensures that working conditions are created. Employees should like to work in the organization and they should get proper job satisfaction.

**JOB ANALYSIS**

Job Analysis is a systematic exploration, study and recording the responsibilities, duties, skills, accountabilities, work environment and ability requirements of a specific job. It also involves determining the relative importance of the duties, responsibilities and physical and emotional skills for a given job. All these factors identify what a job demands and what an employee must possess to perform a job productively.

**Purpose of Job Analysis**

Job Analysis plays an important role in recruitment and selection, job evaluation, job designing, deciding compensation and benefits packages, performance appraisal, analyzing training and development needs, assessing the worth of a job and increasing personnel as well as organizational productivity.

**Recruitment and Selection:** Job Analysis helps in determining what kind of person is required to perform a particular job. It points out the educational qualifications, level of experience and technical, physical,
emotional and personal skills required to carry out a job in desired fashion. The objective is to fit a right person at a right place.

**Performance Analysis:** Job analysis is done to check if goals and objectives of a particular job are met or not. It helps in deciding the performance standards, evaluation criteria and individual’s output. On this basis, the overall performance of an employee is measured and he or she is appraised accordingly.

**Training and Development:** Job Analysis can be used to assess the training and development needs of employees. The difference between the expected and actual output determines the level of training that need to be imparted to employees. It also helps in deciding the training content, tools and equipments to be used to conduct training and methods of training.

**Compensation Management:** Of course, job analysis plays a vital role in deciding the pay packages and extra perks and benefits and fixed and variable incentives of employees. After all, the pay package depends on the position, job title and duties and responsibilities involved in a job. The process guides HR managers in deciding the worth of an employee for a particular job opening.

**Job Designing and Redesigning:** The main purpose of job analysis is to streamline the human efforts and get the best possible output. It helps in designing, redesigning, enriching, evaluating and also cutting back and adding the extra responsibilities in a particular job

**Recruitment:**
Recruitment is of 2 types
Internal Recruitment - is a recruitment which takes place within the concern or organization. Internal sources of recruitment are readily available to an organization. Internal sources are primarily three - Transfers, promotions and Re-employment of ex-employees.

Internal recruitment may lead to increase in employee’s productivity as their motivation level increases. It also saves time, money and efforts. But a drawback of internal recruitment is that it refrains the organization from new blood. Also, not all the manpower requirements can be met through internal recruitment. Hiring from outside has to be done.

Internal sources are primarily 3
Transfers
Promotions (through Internal Job Postings) and
Re-employment of ex-employees - Re-employment of ex-employees is one of the internal sources of recruitment in which employees can be invited and appointed to fill vacancies in the concern. There are situations when ex-employees provide unsolicited applications also.

External Recruitment - External sources of recruitment have to be solicited from outside the organization. External sources are external to a concern. But it involves lot of time and money. The external sources of recruitment include - Employment at factory gate, advertisements, employment
exchanges, employment agencies, educational institutes, labour contractors, recommendations etc.

Employment at Factory Level - This a source of external recruitment in which the applications for vacancies are presented on bulletin boards outside the Factory or at the Gate. This kind of recruitment is applicable generally where factory workers are to be appointed. There are people who keep on soliciting jobs from one place to another. These applicants are called as unsolicited applicants. These types of workers apply on their own for their job. For this kind of recruitment workers have a tendency to shift from one factory to another and therefore they are called as “badli” workers.

Advertisement - It is an external source which has got an important place in recruitment procedure. The biggest advantage of advertisement is that it covers a wide area of market and scattered applicants can get information from advertisements. Medium used is Newspapers and Television.

Employment Exchanges - There are certain Employment exchanges which are run by government. Most of the government undertakings and concerns employ people through such exchanges. Now-a-days recruitment in government agencies has become compulsory through employment exchange.

Employment Agencies - There are certain professional organizations which look towards recruitment and employment of people, i.e. these private agencies run by private individuals supply required manpower to needy concerns.

Educational Institutions - There are certain professional Institutions which serves as an external source for recruiting fresh graduates from these institutes. This kind of recruitment done through such educational institutions, is called as Campus Recruitment. They have special recruitment cells which helps in providing jobs to fresh candidates.

Recommendations - There are certain people who have experience in a particular area. They enjoy goodwill and a stand in the company. There are certain vacancies which are filled by recommendations of such people. The biggest drawback of this source is that the company has to rely totally on such people which can later on prove to be inefficient.

Labour Contractors - These are the specialist people who supply manpower to the Factory or Manufacturing plants. Through these contractors, workers are appointed on contract basis, i.e. for a particular time period. Under conditions when these contractors leave the organization, such people who are appointed have to also leave the concern.

**Selection process:**
Employee Selection is the process of putting right men on right job. It is a procedure of matching organizational requirements with the skills and qualifications of people. Effective selection can be done only when there is
effective matching. By selecting best candidate for the required job, the organization will get quality performance of employees. Moreover, organization will face less of absenteeism and employee turnover problems. By selecting right candidate for the required job, organization will also save time and money. Proper screening of candidates takes place during selection procedure. All the potential candidates who apply for the given job are tested.

But selection must be differentiated from recruitment, though these are two phases of employment process. Recruitment is considered to be a positive process as it motivates more of candidates to apply for the job. It creates a pool of applicants. It is just sourcing of data. While selection is a negative process as the inappropriate candidates are rejected here. Recruitment precedes selection in staffing process. Selection involves choosing the best candidate with best abilities, skills and knowledge for the required job.

The Employee selection Process takes place in following order-

Preliminary Interviews- It is used to eliminate those candidates who do not meet the minimum eligibility criteria laid down by the organization. The skills, academic and family background, competencies and interests of the candidate are examined during preliminary interview. Preliminary interviews are less formalized and planned than the final interviews. The candidates are given a brief up about the company and the job profile; and it is also examined how much the candidate knows about the company. Preliminary interviews are also called screening interviews.

Application blanks- The candidates who clear the preliminary interview are required to fill application blank. It contains data record of the candidates such as details about age, qualifications, reason for leaving previous job, experience, etc.

Written Tests- Various written tests conducted during selection procedure are aptitude test, intelligence test, reasoning test, personality test, etc. These tests are used to objectively assess the potential candidate. They should not be biased.

Employment Interviews- It is a one to one interaction between the interviewer and the potential candidate. It is used to find whether the candidate is best suited for the required job or not. But such interviews consume time and money both. Moreover the competencies of the candidate cannot be judged. Such interviews may be biased at times. Such interviews should be conducted properly. No distractions should be there in room. There should be an honest communication between candidate and interviewer.

Medical examination- Medical tests are conducted to ensure physical fitness of the potential employee. It will decrease chances of employee absenteeism.

Appointment Letter- A reference check is made about the candidate selected and then finally he is appointed by giving a formal appointment letter.
Training Methods: On Job Training and off the Job Training Methods!

A large variety of methods of training are used in business. Even within one organization different methods are used for training different people. All the methods are divided into two classifications for:

A. On-the-job Training Methods:
   1. Coaching
   2. Mentoring
   3. Job Rotation
   4. Job Instruction Technology
   5. Apprenticeship
   6. Understudy

B. Off-the-Job Training Methods:
   1. Lectures and Conferences
   2. Vestibule Training
   3. Simulation Exercises
   4. Sensitivity Training

A. On-the-job training Methods:

Under these methods new or inexperienced employees learn through observing peers or managers performing the job and trying to imitate their behaviour. These methods do not cost much and are less disruptive as employees are always on the job, training is given on the same machines and experience would be on already approved standards, and above all the trainee is learning while earning. Some of the commonly used methods are:

1. Coaching: Coaching is a one-to-one training. It helps in quickly identifying the weak areas and tries to focus on them. It also offers the benefit of transferring theory learning to practice. The biggest problem is that it perpetrates the existing practices and styles. In India most of the scooter mechanics are trained only through this method.
2. Mentoring: The focus in this training is on the development of attitude. It is used for managerial employees. Mentoring is always done by a senior inside person. It is also one-to-one interaction, like coaching.
3. Job Rotation: It is the process of training employees by rotating them through a series of related jobs. Rotation not only makes a person well acquainted with different jobs, but it also alleviates boredom and allows to develop rapport with a number of people. Rotation must be logical.
4. Job Instructional Technique (JIT): It is a Step by step (structured) on the job training method in which a suitable trainer (a) prepares a trainee with an overview of the job, its purpose, and the results desired, (b) demonstrates
the task or the skill to the trainee, (c) allows the trainee to show the demonstration on his or her own, and (d) follows up to provide feedback and help. The trainees are presented the learning material in written or by learning machines through a series called ‘frames’. This method is a valuable tool for all educators (teachers and trainers). It helps us:

a. To deliver step-by-step instruction
b. To know when the learner has learned
c. To be due diligent (in many work-place environments)

5. Apprenticeship: Apprenticeship is a system of training a new generation of practitioners of a skill. This method of training is in vogue in those trades, crafts and technical fields in which a long period is required for gaining proficiency. The trainees serve as apprentices to experts for long periods. They have to work in direct association with and also under the direct supervision of their masters. The object of such training is to make the trainees all-round craftsmen. It is an expensive method of training. Also, there is no guarantee that the trained worker will continue to work in the same organisation after securing training. The apprentices are paid remuneration according the apprenticeship agreements.

6. Understudy: In this method, a superior gives training to a subordinate as his understudy like an assistant to a manager or director (in a film). The subordinate learns through experience and observation by participating in handling day to day problems. Basic purpose is to prepare subordinate for assuming the full responsibilities and duties.

B. Off-the-job Training Methods: Off-the-job training methods are conducted in separate from the job environment, study material is supplied, there is full concentration on learning rather than performing, and there is freedom of expression. Important methods include:

1. Lectures and Conferences: Lectures and conferences are the traditional and direct method of instruction. Every training programme starts with lecture and conference. It’s a verbal presentation for a large audience. However, the lectures have to be motivating and creating interest among trainees. The speaker must have considerable depth in the subject. In the colleges and universities, lectures and seminars are the most common methods used for training.

2. Vestibule Training: Vestibule Training is a term for near-the-job training, as it offers access to something new (learning). In vestibule training, the workers are trained in a prototype environment on specific jobs in a special part of the plant.

An attempt is made to create working condition similar to the actual workshop conditions. After training workers in such condition, the trained workers may be put on similar jobs in the actual workshop. This enables the workers to secure training in the best methods to work and to get rid of initial nervousness. During the Second World War II, this method was used to train a large number of workers in a short period of time. It may also be
used as a preliminary to on-the-job training. Duration ranges from few days to few weeks. It prevents trainees to commit costly mistakes on the actual machines.

3. Simulation Exercises: Simulation is any artificial environment exactly similar to the actual situation. There are four basic simulation techniques used for imparting training: management games, case study, role playing, and in-basket training.

(a) Management Games: Properly designed games help to ingrain thinking habits, analytical, logical and reasoning capabilities, importance of team work, time management, to make decisions lacking complete information, communication and leadership capabilities. Use of management games can encourage novel, innovative mechanisms for coping with stress. Management games orient a candidate with practical applicability of the subject. These games help to appreciate management concepts in a practical way. Different games are used for training general managers and the middle management and functional heads – executive Games and functional heads.

(b) Case Study: Case studies are complex examples which give an insight into the context of a problem as well as illustrating the main point. Case Studies are trainee centered activities based on topics that demonstrate theoretical concepts in an applied setting. A case study allows the application of theoretical concepts to be demonstrated, thus bridging the gap between theory and practice, encourage active learning, provides an opportunity for the development of key skills such as communication, group working and problem solving, and increases the trainees’ enjoyment of the topic and hence their desire to learn.

(c) Role Playing: Each trainee takes the role of a person affected by an issue and studies the impacts of the issues on human life and/or the effects of human activities on the world around us from the perspective of that person. It emphasizes the “real- world” side of science and challenges students to deal with complex problems with no single “right” answer and to use a variety of skills beyond those employed in a typical research project. In particular, role-playing presents the student a valuable opportunity to learn not just the course content, but other perspectives on it. The steps involved in role playing include defining objectives, choose context & roles, introducing the exercise, trainee preparation/research, the role-play, concluding discussion, and assessment. Types of role play may be multiple role play, single role play, role rotation, and spontaneous role play.

(d) In-basket training: In-basket exercise, also known as in-tray training, consists of a set of business papers which may include e-mail SMSs, reports, memos, and other items. Now the trainer is asked to prioritise the decisions to be made immediately and the ones that can be delayed.

4. Sensitivity Training: Sensitivity training is also known as laboratory or T-group training. This training is about making people understand about themselves and others reasonably, which is done by developing in them
social sensitivity and behavioral flexibility. It is ability of an individual to sense what others feel and think from their own point of view. It reveals information about his or her own personal qualities, concerns, emotional issues, and things that he or she has in common with other members of the group. It is the ability to behave suitably in light of understanding.

**Performance Appraisal**
Performance Appraisal is the systematic evaluation of the performance of employees and to understand the abilities of a person for further growth and development. Performance appraisal is generally done in systematic ways which are as follows:
The supervisors measure the pay of employees and compare it with targets and plans.
The supervisor analyses the factors behind work performances of employees.
The employers are in position to guide the employees for a better performance.

**Objectives of Performance Appraisal:**
- To maintain records in order to determine compensation packages, wage structure, salaries raises, etc.
- To identify the strengths and weaknesses of employees to place right men on right job.
- To maintain and assess the potential present in a person for further growth and development.
- To provide a feedback to employees regarding their performance and related status.
- To provide a feedback to employees regarding their performance and related status.
- It serves as a basis for influencing working habits of the employees.
- To review and retain the promotional and other training programmes.

**Performance Appraisal Methods**

**Ranking Method**
The ranking system requires the rater to rank his subordinates on overall performance. This consists in simply putting a man in a rank order. Under this method, the ranking of an employee in a work group is done against that of another employee. The relative position of each employee is tested in terms of his numerical rank. It may also be done by ranking a person on his job performance against another member of the competitive group.

**Advantages of Ranking Method**
Employees are ranked according to their performance levels. It is easier to rank the best and the worst employee.

Limitations of Ranking Method

- The “whole man” is compared with another “whole man” in this method. In practice, it is very difficult to compare individuals possessing various individual traits.
- This method speaks only of the position where an employee stands in his group. It does not test anything about how much better or how much worse an employee is when compared to another employee.
- When a large number of employees are working, ranking of individuals becomes a difficult issue.
- There is no systematic procedure for ranking individuals in the organization. The ranking system does not eliminate the possibility of snap judgements.

Forced Distribution method

This is a ranking technique where raters are required to allocate a certain percentage of rates to certain categories (eg: superior, above average, average) or percentiles (eg: top 10 percent, bottom 20 percent etc). Both the number of categories and percentage of employees to be allotted to each category are a function of performance appraisal design and format. The workers of outstanding merit may be placed at top 10 percent of the scale, the rest may be placed as 20 % good, 40 % outstanding, 20 % fair and 10 % fair.

Advantages of Forced Distribution

- This method tends to eliminate raters bias
- By forcing the distribution according to pre-determined percentages, the problem of making use of different raters with different scales is avoided.

Limitations of Forced Distribution

- The limitation of using this method in salary administration, however, is that it may lead low morale, low productivity and high absenteeism.

Employees who feel that they are productive, but find themselves in lower grade (than expected) feel frustrated and exhibit over a period of time reluctance to work.
**Critical Incident techniques**
Under this method, the manager prepares lists of statements of very effective and ineffective behaviour of an employee. These critical incidents or events represent the outstanding or poor behaviour of employees or the job. The manager maintains logs of each employee, whereby he periodically records critical incidents of the workers behaviour. At the end of the rating period, these recorded critical incidents are used in the evaluation of the worker’s performance. Example of a good critical incident of a Customer Relations Officer is: March 12 - The Officer patiently attended to a customers complaint. He was very polite and prompt in attending the customers problem.

**Advantages of Critical Incident techniques**
- This method provides an objective basis for conducting a thorough discussion of an employees performance.
- This method avoids recency bias (most recent incidents are too much emphasized)

**Limitations of Critical Incident techniques**
- Negative incidents may be more noticeable than positive incidents.
- The supervisors have a tendency to unload a series of complaints about the incidents during an annual performance review sessions.
- It results in very close supervision which may not be liked by an employee.
- The recording of incidents may be a chore for the manager concerned, who may be too busy or may forget to do it.

**Checklists and Weighted Checklists**
In this system, a large number of statements that describe a specific job are given. Each statement has a weight or scale value attached to it. While rating an employee the supervisor checks all those statements that most closely describe the behaviour of the individual under assessment. The rating sheet is then scored by averaging the weights of all the statements checked by the rater. A checklist is constructed for each job by having persons who are quite familiar with the jobs. These statements are then categorized by the judges and weights are assigned to the statements in accordance with the value attached by the judges.

**Advantages of Checklists and Weighted Checklists**
Most frequently used method in evaluation of the employees' performance.

**Limitations of Checklists and Weighted Checklists**

- This method is very expensive and time consuming
- Rater may be biased in distinguishing the positive and negative questions.
- It becomes difficult for the manager to assemble, analyze and weigh a number of statements about the employees' characteristics, contributions and behaviours.

**Employee Grievance Handling Procedure:**

Grievance may be any genuine or imaginary feeling of dissatisfaction or injustice which an employee experiences about his job and its nature, about the management policies and procedures. It must be expressed by the employee and brought to the notice of the management and the organization. Grievances take the form of collective disputes when they are not resolved. Also, they will then lower the morale and efficiency of the employees. Unattended grievances result in frustration, dissatisfaction, low productivity, lack of interest in work, absenteeism, etc. In short, grievance arises when employees' expectations are not fulfilled from the organization as a result of which a feeling of discontentment and dissatisfaction arises. This dissatisfaction must crop up from employment issues and not from personal issues.

**Grievance may result from the following factors:**

- Improper working conditions such as strict production standards, unsafe workplace, bad relation with managers, etc.
- Irrational management policies such as overtime, transfers, demotions, inappropriate salary structure, etc.
- Violation of organizational rules and practices

The manager should immediately identify all grievances and must take appropriate steps to eliminate the causes of such grievances so that the employees remain loyal and committed to their work. Effective grievance management is an essential part of personnel management. The managers should adopt the following approach to manage grievance effectively:
Quick action- As soon as the grievance arises, it should be identified and resolved. Training must be given to the managers to effectively and timely manage a grievance. This will lower the detrimental effects of grievance on the employees and their performance.

Acknowledging grievance- The manager must acknowledge the grievance put forward by the employee as manifestation of true and real feelings of the employees. Acknowledgement by the manager implies that the manager is eager to look into the complaint impartially and without any bias. This will create a conducive work environment with instances of grievance reduced.

Gathering facts- The managers should gather appropriate and sufficient facts explaining the grievance’s nature. A record of such facts must be maintained so that these can be used in later stage of grievance redressal.

Examining the causes of grievance- The actual cause of grievance should be identified. Accordingly remedial actions should be taken to prevent repetition of the grievance.

Decisioning- After identifying the causes of grievance, alternative course of actions should be thought of to manage the grievance. The effect of each course of action on the existing and future management policies and procedure should be analyzed and accordingly decision should be taken by the manager.

Execution and review- The manager should execute the decision quickly, ignoring the fact, that it may or may not hurt the employees concerned. After implementing the decision, a follow-up must be there to ensure that the grievance has been resolved completely and adequately.

Inventory Control
Needs:
- Meet variation in Production Demand
- Cater to Cyclical and Seasonal Demand
- Economies of Scale in Procurement
- Take advantage of Price Increase and Quantity Discounts
- Reduce Transit Cost and Transit Times
- Long Lead and High demand items need to be held in Inventory

Economic Order Quantity:
Every organization that is engaged in production, sale or trading of Products holds inventory in one or the other form. While production and manufacturing organizations hold raw material inventories, finished goods and spare parts inventories, trading companies might hold only finished goods inventories depending upon the business model. When in case of raw material inventory management function is essentially dealing with two major functions. First function deals with inventory planning and the second being inventory tracking. As inventory planners, their main job consists in analyzing demand and deciding when to order and how much to order new
Traditional inventory management approach consists of two models namely:

- **EOQ - Economic Order Quantity**
- **Continuous Ordering**
- **Periodic Ordering**

**EOQ:** Economic Order Quantity method determines the optimal order quantity that will minimize the total inventory cost. EOQ is a basic model and further models developed based on this model include production Quantity Model and Quantity Discount Model.

**Continuous Order Model:** works on fixed order quantity basis where a trigger for fixed quantity replenishment is released whenever the inventory level reaches predetermined safety level and triggers reordering.

**Periodic System Model:** This model works on the basis of placing order after a fixed period of time.

**Example:** Biotech.Co produces chemicals to sell to wholesalers. One of the raw material it buys is sodium nitrate which is purchased at the rate of $22.50 per ton. Biotech’s forecasts show an estimated requirement of 5,75,000 tons of sodium nitrate for the coming year. The annual total carrying cost for this material is 40% of acquisition cost and the ordering cost is $595. What is the Most Economical Order Quantity?

\[
EOQ = \sqrt{\frac{2DS}{C}}
\]

- D = Annual Demand
- C = Carrying Cost
- S = Ordering Cost
\[ \text{EOQ} = \sqrt{\frac{2 \times 5,750,000 \times 595}{9.00}} \]

D = 5,75,000 tons
C = 0.40 \times 22.50 = $9.00/Ton/Year
S = $595/Order

= 27,573.135 tons per Order.

This model presupposes certain assumptions as under:
No safety Stocks available in inventory.
No Shortages allowed in order delivery.
Demand is at uniform rate and does not fluctuate
Lead Time for order delivery is constant
One order = One delivery no shortages allowed.
This model does not take into account other costs of inventory such as stock out cost, acquisition cost etc to calculate EOQ.
In this model, the demand increases for production the inventory gets depleted. When the inventory drops to a critical point the re order process gets triggered. New order is always place for fixed quantities. On receipt of the delivery against the order the inventory level goes up. Using this model, further data extrapolation is possible to determine other factors like how many orders are to be placed in a year and what is the time lapse between orders etc.

ABC ANALYSIS

The main objective of inventory control is to minimize the carrying costs of inventory. Very often all kinds of inventory are not equally important. A small number of important items account for the dominant part of total inventory investment while a large number of items constitute so small a value that they have little effect on the results.

Therefore, much greater control is required on the first type of items than on the others. The stock of items which are expensive has to be kept at the minimum. Items which are voluminous but relatively inexpensive are kept in large stocks as frequent ordering of such items is costlier.

The two types of items are categorised as “A” and “C”, the items falling midway between these are put into “B” category. Maximum attention is focused on items in category A as they constitute the most important class of inventory, items in class B receive moderate attention as they constitute an intermediate position.

Items in category C have negligible importance and; therefore, minimum attention is paid to them. This selective inventory control is called ABC analysis. The following table gives a hypothetical example of ABC classification.

Thus, the ABC analysis yields a saving of 22.5 per cent. The ABC analysis helps to focus control efforts in areas where it is most needed. It must be
remembered that ABC analysis does not prohibit more than three categories of inventory.
The basis of classification is usage value of the items and not their physical quantities. An item in category C may be critical in the sense that its non-availability may hamper production. Therefore, management should be vigilant.

Steps in ABC analysis:

The steps involved in ABC analysis are as follows:

(a) Calculate the annual usage value of each item by multiplying the number used with the price of the item.
(b) Arrange the items in descending order according to the usage value.
(c) Compute percentage of total usage value for each item.
(d) Find out the average inventory of each item by dividing the usage value with 2 and number of orders.
The ABC analysis can be shown on a graph too. For this purpose the cumulative percentages of the number of items are shown on X-axis and percentage of values on F-axis. Where the plotted curve takes a sharp turn a point is marked.
Each such point indicates one category of items. For example, in Fig. 6.1 point P on the curve indicates 20% of item; with 60% usage value. This category can be called A. Point Q shows 30% items with 20% usage value. This category is B. Point R reflects 50% items with 20% usage value which is category C.

![Graph showing ABC classification of inventory](image)

**Fig. 6.1 ABC classification of inventory**

**Purchase Procedure:**
The procedure describes the sequence of steps leading to the completion of an identified specific task. Thus purchasing procedure describes the sequence of steps by which a purchase function is carried through from its inception to its completion. The purchasing procedure starts with the
realization that something is required, the need is then spelt out either in the form of requisition or in a bill of materials, then attempts are made to identify their sources, the appropriate supplier is selected on the basis of some scientific analysis, the purchase order is placed with the selected supplier, it is checked to ensure that the delivery is made as per the agreed terms, the invoice of the vendor is checked and paid out and finally all relevant records are filed and maintained. Generally the professionally managed organizations prepare their own “Purchase Manual” which details out the purchase procedure. It is not desirable to prescribe any standard purchasing procedure due to the existence of wide range of variations that exist among industries, companies, products, personnel etc. Generally organizations should devise their own procedure on the basis of their specific needs. However, the following basic steps are considered while prescribing the full proof purchasing procedure.
Steps of purchasing procedure: The purchasing generally comprises the following steps:
1) Recognition of the need
2) Selection of the supplier
3) Placing the purchase order
4) Follow up of the order
5) Receiving and inspection of the materials
6) Payment of the invoice
7) Maintenance of the records
8) Maintenance of the vendor relations.

**Concept of Marketing**
(1) Production Concept

(2) Product Concept

(3) Selling Concept

(4) Marketing Concept

(5) Societal Marketing Concept

1. Production Concept Those companies who believe in this philosophy think that if the goods/services are cheap and they can be made available at many places, there cannot be any problem regarding sale. Keeping in mind the same philosophy these companies put in all their marketing efforts in reducing the cost of production and strengthening their distribution system. In order to reduce the cost of production and to bring it down to the
minimum level, these companies indulge in large scale production. This helps them in effecting the economics of the large scale production. Consequently, the cost of production per unit is reduced. The utility of this philosophy is apparent only when demand exceeds supply. Its greatest drawback is that it is not always necessary that the customer every time purchases the cheap and easily available goods or services.

2. Product Concept Those companies who believe in this philosophy are of the opinion that if the quality of goods or services is of good standard, the customers can be easily attracted. The basis of this thinking is that the customers get attracted towards the products of good quality. On the basis of this philosophy or idea these companies direct their marketing efforts to increasing the quality of their product. It is a firm belief of the followers of the product concept that the customers get attracted to the products of good quality. This is not the absolute truth because it is not the only basis of buying goods. The customers do take care of the price of the products, its availability, etc. A good quality product and high price can upset the budget of a customer. Therefore, it can be said that only the quality of the product is not the only way to the success of marketing.

3. Selling Concept Those companies who believe in this concept think that leaving alone the customers will not help. Instead there is a need to attract the customers towards them. They think that goods are not bought but they have to be sold. The basis of this thinking is that the customers can be attracted. Keeping in view this concept these companies concentrate their marketing efforts towards educating and attracting the customers. In such a case their main thinking is ‘selling what you have’. This concept offers the idea that by repeated efforts one can sell anything to the customers. This may be right for some time, but you cannot do it for a long-time. If you succeed in enticing the customer once, he cannot be won over every time. On the contrary, he will work for damaging your reputation. Therefore, it can be asserted that this philosophy offers only a short-term advantage and is not for long-term gains.

4. Marketing Concept Those companies who believe in this concept are of the opinion that success can be achieved only through consumer satisfaction. The basis of this thinking is that only those goods/service should be made available which the consumers want or desire and not the things which you can do. In other words, they do not sell what they can make but they make what they can sell. Keeping in mind this idea, these companies direct their marketing efforts to achieve consumer satisfaction. In short, it can be said that it is a modern concept and by adopting it profit can
be earned on a long-term basis. The drawback of this concept is that no attention is paid to social welfare.

5. Societal Marketing Concept: This concept stresses not only the customer satisfaction but also gives importance to Consumer Welfare/Societal Welfare. This concept is almost a step further than the marketing concept. Under this concept, it is believed that mere satisfaction of the consumers would not help and the welfare of the whole society has to be kept in mind. For example, if a company produces a vehicle which consumes less petrol but spreads pollution, it will result in only consumer satisfaction and not the social welfare. Primarily two elements are included under social welfare-high-level of human life and pollution free atmosphere. Therefore, the companies believing in this concept direct all their marketing efforts towards the achievement of consumer satisfaction and social welfare.

**Channels of Distribution:**

A) Direct Channel or Zero Level Channels:

When the manufacturer instead of selling the goods to the intermediary sells it directly to the consumer then this is known as Zero Level Channel. Retail outlets, mail order selling, internet selling and selling

(B) Indirect Channels:

When a manufacturer gets the help of one or more middlemen to move goods from the production place to the place of consumption, the distribution channel is called indirect channel. Following are the main types of it:

1. One Level Channel: In this method an intermediary is used. Here a manufacturer sells the goods directly to the retailer instead of selling it to agents or wholesalers. This method is used for expensive watches and other like products. This method is also useful for selling FMCG (Fast Moving Consumer Goods). This channel is clarified in the following diagram:

2. Two Level Channel: In this method a manufacturer sells the material to a wholesaler, the wholesaler to the retailer and then the retailer to the consumer. Here, the wholesaler after purchasing the material in large quantity from the manufacturer sells it in small quantity to the retailer. Then the retailers make the products available to the consumers. This medium is mainly used to sell soap, tea, salt, cigarette, sugar, ghee etc. This channel is more clarified in the following diagram:

3. Three Level Channel: Under this one more level is added to Two Level Channel in the form of agent. An agent facilitates to reduce the distance between the manufacturer and the wholesaler. Some big companies who
cannot directly contact the wholesaler, they take the help of agents. Such companies appoint their agents in every region and sell the material to them. Then the agents sell the material to the wholesalers, the wholesaler to the retailer and in the end the retailer sells the material to the consumers.

**Marketing mix**
Marketing Mix - A mixture of several ideas and plans followed by a marketing representative to promote a particular product or brand is called marketing mix. Several concepts and ideas combined together to formulate final strategies helpful in making a brand popular amongst the masses form marketing mix.

Elements of Marketing Mix
The elements of marketing mix are often called the four P’s of marketing.

**Product**
Goods manufactured by organizations for the end-users are called products.

Products can be of two types - Tangible Product and Intangible Product (Services)

An individual can see, touch and feel tangible products as compared to intangible products.

A product in a market place is something which a seller sells to the buyers in exchange of money.

**Price**
The money which a buyer pays for a product is called as price of the product. The price of a product is indirectly proportional to its availability in the market. Lesser its availability, more would be its price and vice versa.

Retail stores which stock unique products (not available at any other store) quote a higher price from the buyers.

**Place**
Place refers to the location where the products are available and can be sold or purchased. Buyers can purchase products either from physical markets or from virtual markets. In a physical market, buyers and sellers can physically meet and interact with each other whereas in a virtual market buyers and sellers meet through internet.
Promotion
Promotion refers to the various strategies and ideas implemented by the marketers to make the end-users aware of their brand. Promotion includes various techniques employed to promote and make a brand popular amongst the masses.

Promotion can be through any of the following ways:

Advertising
Print media, Television, radio are effective ways to entice customers and make them aware of the brand’s existence.

Billboards, hoardings, banners installed intelligently at strategic locations like heavy traffic areas, crossings, railway stations, bus stands attract the passing individuals towards a particular brand.

Taglines also increase the recall value of the brand amongst the customers.

Word of mouth
One satisfied customer brings ten more customers along with him whereas one dis-satisfied customer takes away ten more customers. That’s the importance of word of mouth. Positive word of mouth goes a long way in promoting brands amongst the customers.

Product mix:
The term ‘product mix’ implies all the products offered by a firm for sale. It may consist of one line products or several allied product lines.
Product line refers to an assortment or class of similar or related products and services. They may be similar in technology, customers needs, channel used, market served or in some other respect. An individual product in a line is known as a product item. There are several product items in a product line.
Product mix has three important aspects—width, depth and consistency. Width of the product mix is measured by the number and variety of product lines offered by a firm. It shows the degree of diversification of a firm’s activities. The depth of product mix is determined by the number of items in a product line.

By offering several brands of a product, a firm can cater to widely varying needs and tastes of customers and thereby beat its competitors. For instance, the range of bathing soaps (Lifebouy, Lux, Rexona, Liril, etc.) offered by Hindustan Lever Ltd. shows the depth of its product line while the
width of its product mix consists of Dalda Vanaspati, Close-up Toothpaste, Talcum powder, etc. in addition to the soaps. The consistency of product mix refers to the degree of similarity between product lines in terms of their end-use, production requirements, price ranges, distribution channels, advertising media, etc. These dimensions of the product mix serve as guides to decisions regarding the additions and deletions of product items and line. By increasing the consistency of product mix, a firm can reduce its costs of operations and acquire unparalleled reputation in the market.


center

UNIT –IV
MANAGEMENT OF OPERATIONS AND PROJECT MANAGEMENT

Nature of organizational control:
1. Control is a Managerial Process: Management process comprises of five functions, viz., planning, organizing, staffing, directing and controlling. Thus, control is part of the process of management.
2. Control is forward looking: Whatever has happened has happened, and the manager can take corrective action only of the future operations. Past is relevant to suggest what has gone wrong and how to correct the future.
3. Control exists at each level of Organization: Anyone who is a manager, has to involve into control – may be Chairman, Managing Director, CEO, Departmental head, or first line manager. However, at every level the control will differ – top management would be involved in strategic control, middle management into tactical control and lower level into operational control.
4. Control is a Continuous Process: Controlling is not the last function of management but it is a continuous process. Control is not a one-time activity, but a continuous process. The process of setting the standards
needs constant analysis and revision depending upon external forces, plans, and internal performance.

5. Control is closely linked with Planning: Planning and controlling are closely linked. The two are rightly called as ‘Siamese twins’ of management. “Every objective, every goal, every policy, every procedure and every budget become standard against which actual performance is compared. Planning sets the ship’s course and controlling keeps it on course. When the ship begins to veer off the course, the navigator notices it and recommends a new heading designed to return the ship to its proper course. Once control process is over its findings are integrated into planning to prescribe new standards for control.

6. Purpose of Controlling is Goal Oriented and hence Positive: Control is there because without it the business may go off the track. The controlling has positive purpose both for the organization (to make things happen) and individuals (to give up a part of their independence for the attainment of organizational goals).

**Marketing Controls:**

There are several types of control available and the importance and purpose of these controls depend on the objectives for which these controls are to be used. All these controls have a common purpose, that is, monitoring the key result areas is marketing management. The key results are generally common for all marketing organisations.

Some of the important marketing controls commonly used are:

1. Annual Plan Control: This is the most basic of all controls used in marketing organisations. The main purpose of this control is to monitor and take corrective action to examine whether planned sales results are being achieved. The responsibility for this lies with the marketing departmental head and all others in the top management.
2. Profitability Control: Besides annual-plan control, companies carry on periodic research to determine the actual profitability of their different products, territories, customer groups, trade channels, order size etc. The task requires an ability to assign marketing and other costs to specific marketing entities and activities.
3. Efficiency Control: Suppose a profitability analysis reveals that the company is earning poor profits in connection with certain products, territories or markets. The question is whether there are more efficient ways to manage the sales force, advertising, sales promotion. Distribution etc.
4. Strategic Control: Organisations should examine critically their policies, objectives, marketing strategy, and competitive advantage and growth
opportunities regularly so that their direction and growth and overall marketing effectiveness is not impaired or reduced. The scanning of marketing environment has become much more relevant and significant in view of uncertain economic conditions, fast changing technology, customer life-style, demographic changes etc.

**Effective control systems**

1. **Accuracy:** Effective controls generate accurate data and information. Accurate information is essential for effective managerial decisions. Inaccurate controls would divert management efforts and energies on problems that do not exist or have a low priority and would fail to alert managers to serious problems that do require attention.

2. **Timeliness:** There are many problems that require immediate attention. If information about such problems does not reach management in a timely manner, then such information may become useless and damage may occur. Accordingly controls must ensure that information reaches the decision makers when they need it so that a meaningful response can follow.

3. **Flexibility:** The business and economic environment is highly dynamic in nature. Technological changes occur very fast. A rigid control system would not be suitable for a changing environment. These changes highlight the need for flexibility in planning as well as in control. Strategic planning must allow for adjustments for unanticipated threats and opportunities. Similarly, managers must make modifications in controlling methods, techniques and systems as they become necessary. An effective control system is one that can be updated quickly as the need arises.

4. **Acceptability:** Controls should be such that all people who are affected by it are able to understand them fully and accept them. A control system that is difficult to understand can cause unnecessary mistakes and frustration and may be resented by workers. Accordingly, employees must agree that such controls are necessary and appropriate and will not have any negative effects on their efforts to achieve their personal as well as organizational goals.

5. **Integration:** When the controls are consistent with corporate values and culture, they work in harmony with organizational policies and hence are easier to enforce. These controls become an integrated part of the organizational environment and thus become effective.

6. **Economic feasibility:** The cost of a control system must be balanced against its benefits. The system must be economically feasible and reasonable to operate. For example, a high security system to safeguard nuclear secrets may be justified but the same system to safeguard office
supplies in a store would not be economically justified. Accordingly the benefits received must outweigh the cost of implementing a control system.

7. Strategic placement: Effective controls should be placed and emphasized at such critical and strategic control points where failures cannot be tolerated and where time and money costs of failures are greatest. The objective is to apply controls to the essential aspect of a business where a deviation from the expected standards will do the greatest harm. These control areas include production, sales, finance and customer service.

8. Corrective action: An effective control system not only checks for and identifies deviation but also is programmed to suggest solutions to correct such a deviation. For example, a computer keeping a record of inventories can be programmed to establish “if-then” guidelines. For example, if inventory of a particular item drops below five percent of maximum inventory at hand, then the computer will signal for replenishment for such items.

9. Emphasis on exception: A good system of control should work on the exception principle, so that only important deviations are brought to the attention of management. In other words, management does not have to bother with activities that are running smoothly. This will ensure that managerial attention is directed towards error and not towards conformity. This would eliminate unnecessary and uneconomic supervision, marginally beneficial reporting and a waste of managerial time.

OPERATIONS MANAGEMENT
As to deliver value for customers in products and services, it is essential for the company to do the following:

Identify the customer needs and convert that into a specific product or service (numbers of products required for specific period of time)
Based on product requirement do back-ward working to identify raw material requirements
Engage internal and external vendors to create supply chain for raw material and finished goods between vendor → production facility → customers.

Essentials of operations management:
A high level comparison which distinct production and operations management can be done on following characteristics:
Output: Production management deals with manufacturing of products like (computer, car, etc) while operations management cover both products and services.
Usage of Output: Products like computer/car are utilized over a period of time whereas services need to be consumed immediately.

Classification of work: To produce products like computer/car more of capital equipment and less labour are required while services require more labour and lesser capital equipment.

Customer Contact: There is no participation of customer during production whereas for services a constant contact with customer is required.

Recent Trends in Production/Operations management

- Global Market Place
- Production/Operations Strategy
- Total Quality Management (TQM)
- Flexibility
- Time Reduction
- Technology
- Worker Involvement
- Re-engineering
- Environmental Issues
- Corporate Downsizing (or Right Sizing)
- Supply-Chain Management
- Lean Production

UNIT –V

CONTEMPORARY MANAGEMENT ISSUES

Strategic Management - An Introduction

Strategic Management is all about identification and description of the strategies that managers can carry so as to achieve better performance and a competitive advantage for their organization. An organization is said to have competitive advantage if its profitability is higher than the average profitability for all companies in its industry. Strategic management can also be defined as a bundle of decisions and acts which a manager undertakes and which decides the result of the firm’s performance. The manager must have a thorough knowledge and analysis of the general and competitive organizational environment so as to take right decisions. They should conduct a SWOT Analysis (Strengths, Weaknesses, Opportunities, and Threats), i.e., they should make best possible utilization of strengths, minimize the organizational weaknesses, make use of arising opportunities from the business environment and shouldn’t ignore the threats.

Strategic management is nothing but planning for both predictable as well as unfeasible contingencies. It is applicable to both small as well as large organizations as even the smallest organization face competition and, by formulating and implementing appropriate strategies, they can attain sustainable competitive advantage.
It is a way in which strategists set the objectives and proceed about attaining them. It deals with making and implementing decisions about future direction of an organization. It helps us to identify the direction in which an organization is moving. Strategic management is a continuous process that evaluates and controls the business and the industries in which an organization is involved; evaluates its competitors and sets goals and strategies to meet all existing and potential competitors; and then reevaluates strategies on a regular basis to determine how it has been implemented and whether it was successful or does it needs replacement.

Vision

A vision statement identifies where the organization wants or intends to be in future or where it should be to best meet the needs of the stakeholders. It describes dreams and aspirations for future. For instance, Microsoft’s vision is “to empower people through great software, any time, any place, or any device.” Wal-Mart’s vision is to become worldwide leader in retailing. A vision is the potential to view things ahead of themselves. It answers the question “where we want to be”. It gives us a reminder about what we attempt to develop. A vision statement is for the organization and its members, unlike the mission statement which is for the customers/clients. It contributes in effective decision making as well as effective business planning. It incorporates a shared understanding about the nature and aim of the organization and utilizes this understanding to direct and guide the organization towards a better purpose. It describes that on achieving the mission, how the organizational future would appear to be. An effective vision statement must have following features:

a. It must be unambiguous.
b. It must be clear.
c. It must harmonize with organization’s culture and values.
d. The dreams and aspirations must be rational/realistic.
e. Vision statements should be shorter so that they are easier to memorize.

Mission Statement

Mission statement is the statement of the role by which an organization intends to serve its stakeholders. It describes why an organization is operating and thus provides a framework within which strategies are formulated. It describes what the organization does (i.e., present capabilities), who all it serves (i.e., stakeholders) and what makes an organization unique (i.e., reason for existence). A mission statement differentiates an organization from others by explaining its broad scope of activities, its products, and technologies it uses to achieve its goals and objectives. It talks about an organization’s present (i.e., “about where we are”). For instance, Microsoft’s mission is to help people and businesses throughout the world to realize their full potential. Wal-Mart’s
mission is “To give ordinary folk the chance to buy the same thing as rich people.” Mission statements always exist at top level of an organization, but may also be made for various organizational levels. Chief executive plays a significant role in formulation of mission statement. Once the mission statement is formulated, it serves the organization in long run, but it may become ambiguous with organizational growth and innovations. In today’s dynamic and competitive environment, mission may need to be redefined. However, care must be taken that the redefined mission statement should have original fundamentals/components. Mission statement has three main components—a statement of mission or vision of the company, a statement of the core values that shape the acts and behavior of the employees, and a statement of the goals and objectives.

**Features of a Mission**
a. Mission must be feasible and attainable. It should be possible to achieve it.
b. Mission should be clear enough so that any action can be taken.
c. It should be inspiring for the management, staff and society at large.
d. It should be precise enough, i.e., it should be neither too broad nor too narrow.
e. It should be unique and distinctive to leave an impact in everyone’s mind.
f. It should be analytical, i.e., it should analyze the key components of the strategy.
g. It should be credible, i.e., all stakeholders should be able to believe it.

**Goals and Objectives**
A goal is a desired future state or objective that an organization tries to achieve. Goals specify in particular what must be done if an organization is to attain mission or vision. Goals make mission more prominent and concrete. They co-ordinate and integrate various functional and departmental areas in an organization. Well made goals have following features-
a. These are precise and measurable.
b. These look after critical and significant issues.
c. These are realistic and challenging.
d. These must be achieved within a specific time frame.
e. These include both financial as well as non-financial components.

**Environmental Scanning - Internal & External Analysis of Environment**

Organizational environment consists of both external and internal factors. Environment must be scanned so as to determine development and forecasts of factors that will influence organizational success. Environmental
scanning refers to possession and utilization of information about occasions, patterns, trends, and relationships within an organization’s internal and external environment. It helps the managers to decide the future path of the organization. Scanning must identify the threats and opportunities existing in the environment. While strategy formulation, an organization must take advantage of the opportunities and minimize the threats. A threat for one organization may be an opportunity for another.

Internal analysis of the environment is the first step of environment scanning. Organizations should observe the internal organizational environment. This includes employee interaction with other employees, employee interaction with management, manager interaction with other managers, and management interaction with shareholders, access to natural resources, brand awareness, organizational structure, main staff, operational potential, etc. Also, discussions, interviews, and surveys can be used to assess the internal environment. Analysis of internal environment helps in identifying strengths and weaknesses of an organization.

As business becomes more competitive, and there are rapid changes in the external environment, information from external environment adds crucial elements to the effectiveness of long-term plans. As environment is dynamic, it becomes essential to identify competitors’ moves and actions. Organizations have also to update the core competencies and internal environment as per external environment. Environmental factors are infinite, hence, organization should be agile and vigile to accept and adjust to the environmental changes. For instance - Monitoring might indicate that an original forecast of the prices of the raw materials that are involved in the product are no more credible, which could imply the requirement for more focused scanning, forecasting and analysis to create a more trustworthy prediction about the input costs. In a similar manner, there can be changes in factors such as competitor’s activities, technology, market tastes and preferences.

While in external analysis, three correlated environment should be studied and analyzed —
- immediate / industry environment
- national environment
- broader socio-economic environment / macro-environment

Examining the industry environment needs an appraisal of the competitive structure of the organization’s industry, including the competitive position of a particular organization and it’s main rivals. Also, an assessment of the nature, stage, dynamics and history of the industry is essential. It also implies evaluating the effect of globalization on competition within the industry. Analyzing the national environment needs an appraisal of whether the national framework helps in achieving competitive advantage in the globalized environment. Analysis of macro-environment includes exploring macro-economic, social, government, legal, technological and international
factors that may influence the environment. The analysis of organization’s external environment reveals opportunities and threats for an organization. Strategic managers must not only recognize the present state of the environment and their industry but also be able to predict its future positions.

**SWOT** is an acronym for Strengths, Weaknesses, Opportunities and Threats. By definition, Strengths (S) and Weaknesses (W) are considered to be internal factors over which you have some measure of control. Also, by definition, Opportunities (O) and Threats (T) are considered to be external factors over which you have essentially no control.

**SWOT Analysis** is the most renowned tool for audit and analysis of the overall strategic position of the business and its environment. Its key purpose is to identify the strategies that will create a firm specific business model that will best align an organization’s resources and capabilities to the requirements of the environment in which the firm operates.

In other words, it is the foundation for evaluating the internal potential and limitations and the probable/likely opportunities and threats from the external environment. It views all positive and negative factors inside and outside the firm that affect the success. A consistent study of the environment in which the firm operates helps in forecasting/predicting the changing trends and also helps in including them in the decision-making process of the organization.

An overview of the four factors (Strengths, Weaknesses, Opportunities and Threats) is given below:

**Strengths** - Strengths are the qualities that enable us to accomplish the organization’s mission. These are the basis on which continued success can be made and continued/sustained. Strengths can be either tangible or intangible. These are what you are well-versed in or what you have expertise in, the traits and qualities your employees possess (individually and as a team) and the distinct features that give your organization its consistency.

Strengths are the beneficial aspects of the organization or the capabilities of an organization, which includes human competencies, process capabilities, financial resources, products and services, customer goodwill and brand loyalty. Examples of organizational strengths are huge financial resources, broad product line, no debt, committed employees, etc.

**Weaknesses** - Weaknesses are the qualities that prevent us from accomplishing our mission and achieving our full potential. These
Weaknesses deteriorate influences on the organizational success and growth. Weaknesses are the factors which do not meet the standards we feel they should meet. Weaknesses in an organization may be depreciating machinery, insufficient research and development facilities, narrow product range, poor decision-making, etc. Weaknesses are controllable. They must be minimized and eliminated. For instance, to overcome obsolete machinery, new machinery can be purchased. Other examples of organizational weaknesses are huge debts, high employee turnover, complex decision making process, narrow product range, large wastage of raw materials, etc.

Opportunities - Opportunities are presented by the environment within which our organization operates. These arise when an organization can take benefit of conditions in its environment to plan and execute strategies that enable it to become more profitable. Organizations can gain competitive advantage by making use of opportunities. Organization should be careful and recognize the opportunities and grasp them whenever they arise. Selecting the targets that will best serve the clients while getting desired results is a difficult task. Opportunities may arise from market, competition, industry/government and technology. Increasing demand for telecommunications accompanied by deregulation is a great opportunity for new firms to enter telecom sector and compete with existing firms for revenue.

Threats - Threats arise when conditions in external environment jeopardize the reliability and profitability of the organization’s business. They compound the vulnerability when they relate to the weaknesses. Threats are uncontrollable. When a threat comes, the stability and survival can be at stake. Examples of threats are - unrest among employees; ever changing technology; increasing competition leading to excess capacity, price wars and reducing industry profits; etc.

**Strategy formulation** refers to the process of choosing the most appropriate course of action for the realization of organizational goals and objectives and thereby achieving the organizational vision. The process of strategy formulation basically involves six main steps. Though these steps do not follow a rigid chronological order, however they are very rational and can be easily followed in this order.

Setting Organizations’ objectives - The key component of any strategy statement is to set the long-term objectives of the organization. It is known that strategy is generally a medium for realization of organizational objectives. Objectives stress the state of being there whereas Strategy stresses upon the process of reaching there. Strategy includes both the
fixation of objectives as well the medium to be used to realize those objectives. Thus, strategy is a wider term which believes in the manner of deployment of resources so as to achieve the objectives.

While fixing the organizational objectives, it is essential that the factors which influence the selection of objectives must be analyzed before the selection of objectives. Once the objectives and the factors influencing strategic decisions have been determined, it is easy to take strategic decisions.

Evaluating the Organizational Environment - The next step is to evaluate the general economic and industrial environment in which the organization operates. This includes a review of the organizations competitive position. It is essential to conduct a qualitative and quantitative review of an organizations existing product line. The purpose of such a review is to make sure that the factors important for competitive success in the market can be discovered so that the management can identify their own strengths and weaknesses as well as their competitors’ strengths and weaknesses.

After identifying its strengths and weaknesses, an organization must keep a track of competitors’ moves and actions so as to discover probable opportunities of threats to its market or supply sources.

Setting Quantitative Targets - In this step, an organization must practically fix the quantitative target values for some of the organizational objectives. The idea behind this is to compare with long term customers, so as to evaluate the contribution that might be made by various product zones or operating departments.

Aiming in context with the divisional plans - In this step, the contributions made by each department or division or product category within the organization is identified and accordingly strategic planning is done for each sub-unit. This requires a careful analysis of macroeconomic trends.

Performance Analysis - Performance analysis includes discovering and analyzing the gap between the planned or desired performance. A critical evaluation of the organizations past performance, present condition and the desired future conditions must be done by the organization. This critical evaluation identifies the degree of gap that persists between the actual reality and the long-term aspirations of the organization. An attempt is made by the organization to estimate its probable future condition if the current trends persist.

Choice of Strategy - This is the ultimate step in Strategy Formulation. The best course of action is actually chosen after considering organizational goals, organizational strengths, potential and limitations as well as the external opportunities.

**Introduction to MIS**
In today’s information and communication age, there is a constant reference to information systems and management of information systems. In the digital age data, storage and retrieval are done through various systems and interfaces.

Information System
An information system, therefore, can be defined as set of coordinated network of components which act together towards producing, distributing and or processing information. An important factor of computer based information system is precision, which may not apply to other types of systems.

System
In a system, network of components work towards a single objective, if there is lack of co-ordination among components, it leads to counterproductive results. A system may have following features:

Adaptability: some systems are adaptive to the exterior environment, while some systems are non-adaptive to the external environment. For example, anti-lock braking system in car reacts depending on the road conditions, where as the music system in the car is independent of other happening with the car.
Limitation: every system has pre-defined limits or boundaries within which it operates. This limits or boundaries can be defined by law or current state of technology.

Information
Common definition of information is data. However, data is no true information. Data gets its meaning and significance if only it is information. Information is represented with data, symbols and letters.

Information has following properties:

Objective: One of the key properties of information is its objectiveness. Objective information is a key component of any modern scientific research.
Subjective: Set of information which is useful to science may be abstract or irrelevant for others. Therefore, information is subjective also.
Temporary: Information is temporary with every update in the database.

Representation of Information
Information is represented with help of data, numbers, letters or symbols. Information is perceived in a way it gets represented. Decimal system and binary system are two ways of representing information. The binary circuits of computers are designed to operate under two states (0,1).

Organization of Information
The way in which information is organized directly affect the way the information is managed and retrieved.

The simplest way of organizing information is through linear model. In this form, data is structured one after another, for example, in magnetic tapes, music tapes, etc.

In a binary tree model, data is arranged in an inverted tree format where it assumes two values.

The hierarchy model is derived from a binary tree model. In this model, branch can assume multi-value data, for example in the UNIX operating system this model is used for its file system.

The hypertext model is another way of organizing information; World Wide Web is an example of this model.

Random access model is another way of organizing information. This model is used for optimum utilization of available computer storage space. Here data is stored in specified location under direction of the operating system.

Networking Information
Information is networked through network topology. The layout of all the connected devices, and it provides virtual shape or structure to the network is known as network topology. The physical structure may not be representative of network topology. The basic types of topology are bus, ring, star, tree and mesh.

The above topologies are constructed and managed with help of Hubs, Switches, Bridges, Routers, Brouters and Gateways.

Securing Information
Security of information as well as an information system is critical. Data back-up is on the way through which Information can be made secured. Security management for network and information system is distinct for different setup like home, small business, medium business, large business, school and government.

**Need for Enterprise Resource Planning - Why ERP ?**
Separate systems were being maintained during 1960/70 for traditional business functions like Sales & Marketing, Finance, Human Resources, Manufacturing, and Supply Chain Management. These systems were often incongruent, hosted in different databases and required batch updates. It was difficult to manage business processes across business functions e.g.
procurement to pay and sales to cash functions. ERP system grew to replace the islands of information by integrating these traditional business functions.

The successful implementation of an ERP system will have many advantages, as indicated below:

**Business Integration and Improved Data Accuracy:** ERP system is composed of various modules/submodules where a module represents a particular business component. If data is entered in one module such as receiving, it automatically updates other related modules such as accounts payable and inventory. This updating occurs at real time i.e. at the time a transaction occurs. Since, data needs to be entered only once at the origin of the transaction, the need for multiple entries of the same data is eliminated. Likelihood of duplicate/erroneous data is, therefore, minimized. The centralized structure of the database also enables better administration and security provisions, which minimizes loss of sensitive data.

**Planning and MIS:** The various decision support tools like planning engines and simulations functions, form an integral part of an ERP system that helps in proper utilization of resources like materials, human resources, and tools. Constrained based planning help in drawing appropriate production schedules, thereby improving the operation of plant and equipment. As a part of MIS, an ERP system, contains many inbuilt standard reports and also a report writer that produce ad hoc reports, as and when needed.

**Improved Efficiency and Productivity:** In addition to provision of improved planning, ERP system provides a tremendous boost to the efficiency of day to day and routine transactions such as order fulfillment, on time shipment, vendor performance, quality management, invoice reconciliation, sales realization, and cash management. Cycle time is reduced for sales to cash and procurement to pay sequences.

**Establishment of Standardized Procedures:** ERP system is based on processes of international best practices, which are adopted by the organizations during implementation. Department silos are purged, and maverick practices are done away with. Because of top-down view available to management, chances of theft, fraud and obsolescence are minimized.

**Flexibility and technology:** Due to the globalized environment, where production units, distribution centers, and corporate offices reside in different countries, organizations need multi-currency, multi-language and multi-accounting modes, in an integrated manner. These provisions are available in most of the ERP systems, particularly in products offered by tier 1 and tier 2 vendors. ERP vendors are also quick to adopt latest technologies, from mainframe to client server to the internet. Unlike a bespoke system, Upgrading to latest technology for a running ERP system is uncomplicated, involving mostly adoption of service packs and patches.

**Just In Time (JIT)**
Just In Time is set of strategic activities, which are formulated to achieve maximum production with minimal maintenance of inventory. JIT as philosophy is applicable to various types of organization but on implementation side it is more relevant with manufacturing operations. For JIT system to be successful, there are two critical elements, attitude of workers/management and practice.

- **Fundamentals of JIT**
- JIT is based on the following fundamentals:
  - JIT manufacturing and ordering
  - Elimination of waste
  - Lean management

With the above fundamentals in place, JIT delivers the following:

- Continuous improvement of production and order processing.
- Elimination of non-value added activities and procedures.
- Simplification and advancement of the existing systems.
- Creation of safety environment and ensuring total quality management.
- Creation crossed skilled workers.

**Total Quality Management**

Total Quality management is defined as a continuous effort by the management as well as employees of a particular organization to ensure long term customer loyalty and customer satisfaction. Remember, one happy and satisfied customer brings ten new customers along with him whereas one disappointed individual will spread bad word of mouth and spoil several of your existing as well as potential customers.

You need to give something extra to your customers to expect loyalty in return. Quality can be measured in terms of durability, reliability, usage and so on. Total quality management is a structured effort by employees to continuously improve the quality of their products and services through proper feedbacks and research. Ensuring superior quality of a product or service is not the responsibility of a single member.

Every individual who receives his/her paycheck from the organization has to contribute equally to design foolproof processes and systems which would eventually ensure superior quality of products and services. Total Quality management is indeed a joint effort of management, staff members, workforce, suppliers in order to meet and exceed customer satisfaction level.

You can't just blame one person for not adhering to quality measures. The responsibility lies on the shoulder of everyone who is even remotely associated with the organization.
W. Edwards Deming, Joseph M. Juran, and Armand V. Feigenbaum jointly developed the concept of total quality management. Total Quality management originated in the manufacturing sector, but can be applied to almost all organizations. Total quality management ensures that every single employee is working towards the improvement of work culture, processes, services, systems and so on to ensure long term success. Total Quality management can be divided into four categories:

- Plan
- Do
- Check
- Act

**Why SCM strategy is important for an Organization**

Supply Chain Strategies are the critical backbone to Business Organizations today. Effective Market coverage, Availability of Products at locations that hold the key to revenue recognition depends upon the effectiveness of Supply Chain Strategy rolled out. Very simply stated, when a product is introduced in the market and advertised, the entire market in the country and all the sales counters need to have the product where the customer can buy and take delivery. Any glitch in the product not being available at the right time can result in the drop in customer interest and demand which can be disastrous. Transportation network design and management assume importance to support sales and marketing strategy.

Inventory control and inventory visibility are two very critical elements in any operations for these are the cost drivers and directly impact the bottom lines on the balance sheet. Inventory means value and is an asset to the company. Every business has a standard for inventory turnaround that is optimum for the business. Inventory turnaround refers to the number of times the inventory is sold and replaced over a period of twelve months. The health of the inventory turn relates to the health of business.

In a global scenario, the finished goods inventory is held at many locations and distribution centers, managed by third parties. A lot of inventory would also be in the pipeline in transportation, besides the inventory with distributors and retail stocking points. Since any loss of inventory anywhere in the supply chain would result in loss of value, effective control of inventory and visibility of inventory gains importance as a key factor of Supply Chain Management function.

**Six Sigma**
**Six Sigma** is a business management strategy which aims at improving the quality of processes by minimizing and eventually removing the errors and variations. The concept of Six Sigma was introduced by Motorola in 1986, but was popularized by Jack Welch who incorporated the strategy in his business processes at General Electric. The concept of Six Sigma came into existence when one of Motorola’s senior executives complained of Motorola’s bad quality. Bill Smith eventually formulated the methodology in 1986.

Quality plays an important role in the success and failure of an organization. Neglecting an important aspect like quality, will not let you survive in the long run. Six Sigma ensures superior quality of products by removing the defects in the processes and systems. Six sigma is a process which helps in improving the overall processes and systems by identifying and eventually removing the hurdles which might stop the organization to reach the levels of perfection. According to sigma, any sort of challenge which comes across in an organization’s processes is considered to be a defect and needs to be eliminated.

Organizations practicing Six Sigma create special levels for employees within the organization. Such levels are called as: “Green belts”, “Black belts” and so on. Individuals certified with any of these belts are often experts in six sigma process. According to Six Sigma any process which does not lead to customer satisfaction is referred to as a defect and has to be eliminated from the system to ensure superior quality of products and services. Every organization strives hard to maintain excellent quality of its brand and the process of six sigma ensures the same by removing various defects and errors which come in the way of customer satisfaction.

The process of Six Sigma originated in manufacturing processes but now it finds its use in other businesses as well. Proper budgets and resources need to be allocated for the implementation of Six Sigma in organizations. Following are the two Six Sigma methods:

**DMAIC**

**DMADV**

DMAIC focuses on improving existing business practices. DMADV, on the other hand focuses on creating new strategies and policies.

**DMAIC** has Five Phases

D - Define the Problem. In the first phase, various problems which need to be addressed to are clearly defined. Feedbacks are taken from customers as to what they feel about a particular product or service. Feedbacks are carefully monitored to understand problem areas and their root causes.

M - Measure and find out the key points of the current process. Once the problem is identified, employees collect relevant data which would give an insight into current processes.
A - Analyze the data. The information collected in the second stage is thoroughly verified. The root cause of the defects are carefully studied and investigated as to find out how they are affecting the entire process.
I - Improve the current processes based on the research and analysis done in the previous stage. Efforts are made to create new projects which would ensure superior quality.
C - Control the processes so that they do not lead to defects.

DMADV Method
D - Design strategies and processes which ensure hundred percent customer satisfaction.
M - Measure and identify parameters that are important for quality.
A - Analyze and develop high level alternatives to ensure superior quality.
D - Design details and processes.
V - Verify various processes and finally implement the same.

BPO BUSINESS PROCESS OUTSOURCING

In recent years, the term Business Process Outsourcing or BPO has gained prominence and the trend of outsourcing back office operations to centers in India and Philippines along with other countries in Asia has taken center stage. Often, we come across projections that show a greater growth in BPO with more western firms outsourcing to the Asian and other countries. This module is intended to cover the BPO phenomenon in depth and provide the readers with a clear understanding of the dynamics involved as far as this phenomenon is concerned. The various articles in this module would help the readers form a perspective of how the BPO sector works and the business drivers and imperatives behind the outsourcing phenomenon.

First, why should any company in the west outsource its back office operations? There are several reasons for this and the primary driver is the cost factor. Since wages in India and other Asian countries are cheap in Dollar terms which mean that for the same amount of money that the firms are paying their employees in the west, they can get a highly leveraged amount of work when they outsource to India and other Asian countries. Next, because of the fact that the time zones of the West and Asia complement each other to ensure that work gets done in a 24/7 cycle. What we mean is that since the US and Asia are separated by almost a half day time zone differential, whenever it is nighttime in the US, it is daytime in Asia and vice versa meaning that the work can be done round the clock.

Third, the BPO employees in the India and Asian countries like Philippines are proficient in English and with some training can be taught to talk in an American accent or a British Accent. This means that the end users or the consumers in the US and Europe can feel comfortable secure in the knowledge that they can make themselves understood as well as understand what the person at the end of the line is saying. Finally, because of the way
in which the BPO phenomenon has developed over the years, many companies in India and other parts of Asia are now better at the back office work than their American or European counterparts which means that not only is the cost an important criterion, quality of service offered is also excellent. Because of these factors, there are humungous benefits for American and European countries to outsource their back office operations to companies in the East. This can take the form of captive companies set up for this purpose or can be a turnkey outsourcing to a vendor. We will explore these themes in greater detail in the succeeding articles. In conclusion, it would be fair to say that the BPO phenomenon represents a turning of the tide as far as perceptions about the East are concerned and it is to the credit of Indian and other Asian countries that they have delivered stellar results to their outsourcing clients in the US and in Europe.