Lecture (2)
Roles Of The Management Information System

Definition and Roles

A management information system (MIS) is a system or process that provides the information necessary to manage an organization effectively. It is used by managers throughout the organization to help them in directing, planning, coordinating, communicating, and decision-making.

In order to provide past, present and prediction information, an MIS can include software that helps in decision-making, data resources such as databases, the hardware resources of a system, decision support systems, people management and project management applications, and any computerized processes that enable the department to run efficiently.

The importance of maintaining a consistent approach to the development, use, and review of MIS systems within the institution must be an ongoing concern of the managers. MIS should have a clearly defined framework of guidelines, policies or practices, standards, and procedures for the organization. These should be followed throughout the institution in the development, maintenance, and use of all MIS.

MIS is viewed and used at many levels by management. It should be supportive of the institution's longer term strategic goals and objectives. To the other extreme it is also those everyday accounting systems that are used to ensure basic control is maintained over financial record keeping activities.

MIS plays very vital role in the management, administration and operation of the organization. The system ensures that an appropriate data is collected from various sources, processed and sent further to all the needy

destinations. An institution's MIS should be designed to achieve the following goals:

♦ Enhance communication among employees.

♦ Deliver complex material throughout the institution.

♦ Provide an objective system for recording and aggregating information.

♦ Reduce expenses related to labor-intensive manual activities.

♦ Support the organization's strategic goals and direction.

Principles of Management

Effective MIS should ensure the appropriate presentation formats and time frames required by operations and senior management is met. MIS can be maintained and developed by either manual or automated systems or a combination of both. It should always be sufficient to meet an institution's unique goals and objectives. The effective deliveries of an institution's products and services are supported by the MIS. These systems should be accessible and useable at all appropriate levels of the organization. Below we can summaries the main principles of management:

1. **Division of Work**: Division of work or work specialization results in efficient use of resources and increases productivity. This is applicable to both managerial and technical functions.

2. **Authority and Responsibility**: Authority means right to give order or command. Responsibility is the obligation to achieve objectives.

Responsibility comes with authority. Authority and responsibility pinpoints the accountability of work.

3. **Discipline**: Discipline is absolutely necessary for the smooth running of the organization. Discipline means following rules, regulations, policies and procedures by all employees of organization. There must be clear and fair agreement for observing rules and regulations also punishment for disobedience and indiscipline.

4. **Unity of Command**: An employee should receive orders from one supervisor only to avoid possible confusion and conflict i.e. any worker should not be under control of more than one supervisor. It avoids mistakes and delays in getting work done.

5. **Subordination of Individual Interest to General Interest**: The interests of one employee or group should not be given importance over the interests and goals of organization.

6. **Remuneration**: Compensation and the methods of compensation should be fair to both the employee and the employer. Exploitation of employees of any kind must be avoided.

7. **Centralization**: The centralization of authority and power to some extent is necessary where it is most feasible otherwise there should be decentralization of authority and power for smooth functioning of the organization. A balance between both must be achieved. The objective is the optimum use of the capabilities of personnel.

8. **Scaler Chain of authority**: A scaler (hierarchical) chain of authority extends from the highest to lowest rank of an organization and defines the communication path. However, horizontal communication is also encouraged as long as the managers in the chain are kept informed.

9. **Order**: Order is principle of arrangement of things and people. Everything should occupy its proper place i.e. everything should be in order. Due to good organization and selection the right person should be in the right place. Order leads to the creation of sound organization with efficient management.

10. **Stability of Personnel Tenure**: Stability of tenure of personnel in the organization increases the efficiency of the employees and is a symbol of sound management. Because time is required to become effective in new jobs, high turnover of employees should be prevented. Instability (high turnover) is a symbol of weak management.

11. **Initiative**: Managers should encourage and develop the subordinates to take initiative. It is the result of creative thinking and imagination and helps in formulating, planning also its execution.

Impact of MIS

MIS creates an impact on the organization's function, performance and productivity. With MIS support management of all departments of an organization can become more effective. MIS provides several advantages to the organization:

1. **Ability to link and enable employees**: Electronic communication increases the overall amount of communication within a firm. The most important aspect is that people from the various units of a corporation can interact with each other and thus horizontal communication is promoted. All the obvious advantages of quicker information availability is the outcome of this function of IT but it must also be remembered that too much electronic communication leads to increased alienation of employees due to increased impersonality.

2. **Increases boundary spanning**: An individual can access any information in any part of the organization with the aid of the appropriate technology. This eliminates the need for the repetition of information and thus promotes non-redundancy. If information provided is adequate, one can deal with factors like business risk and uncertainties effectively.

3. **Ability to store and retrieve information at any instance**: means that the organization does not have to rely solely on the fallibility of human error, which is subject to error and erosion. Information can be stored, retrieved and communicated far more easily and effectively. The information support improves the lack of knowledge, enriches experience and improves analytical ability leading to better business judgment. It helps managers to act decisively.

4. **Helps in forecasting and long term planning**: A disciplined IS creates a structured database and knowledge base for all people in the organization. The information available in such a form that it can be used either straight away or using blending and analysis thereby saving manager's valuable time.

Disadvantage of MIS

However, IT can often lead to information overload, meaning that managers have to sift through an insurmountable amount of stored data and thus hindering timely decision-making. This problem is not as serious as first thought, though. Information overload is not an IT problem but more of a documentation problem. Furthermore, management tends to adapt to IT problems once it gets used to the idea of the new technologies. Inaccurate reporting can lead to flawed decision making and planning. MIS typically extracts data from many different financial and transaction systems running on various computer platforms, which can often lead to inaccurate and inconsistent reports unless appropriate control procedures are in place. Even if the information is accurate, the predefined reports generated by MIS may not always anticipate the information needs of individual managers at all times; or the correct information is not available when needed, or is simply hard to access. Because of these deficiencies in MIS, managers are increasingly turning to interactive decision support systems to obtain the information they need for planning and control.

Functions of Manager

1. **Planning** is the process of determining the goals and objectives and strategies for achieving goals of the organization. When doing planning, managers need to:

   - Write or review the organization's mission.

   - Identify and analyze opportunities.

   - Establish goals.

   - Select a course of action to achieve these goals.

   - Determine resources needed.

2. **Organizing** means deciding what work needs to be done, assigning the tasks, and arranging them into a decision-making framework. Organization involves evolving the structure of the people working in the organization and their roles. Also organizing involves determining activities required to achieve the established objectives, grouping these activities in a logical basis for handling by persons, managers and, finally assigning persons to the job designed.

3. **Staffing**: The primary purposes of staffing are to find, hire, train, develop, reward and retain the required amount of good people, helping them meet their needs while they help the company meet its goal. This statement addresses several important aspects of staffing including recruiting, training and retaining employees that will benefit the company.

4. **Directing**: is influencing people's behavior through motivation, communication, group dynamics, leadership and disciples. The purpose of directing is to channel the behaviors of all personnel to accomplish the organization's mission and objectives while simultaneously helping them accomplish their own career objectives.

5. **Controlling**: is the management function, in which managers set and communicate performance standards for people, processes, and devices. The four steps of the control process are :

   ▪ Establishing performance standards.

   ▪ Measuring performance.

   ▪ Comparing measured performance to established standards.

   ▪ Taking corrective action.

6. **Coordinating:** This function brings a harmony and smoothness in the various group activities and individual efforts directed towards goals. It needs synchronizing individual efforts and actions which may differ. This is normally carried out by the authority of top level management. Coordinating includes communicating with others, providing directions and motivating people.
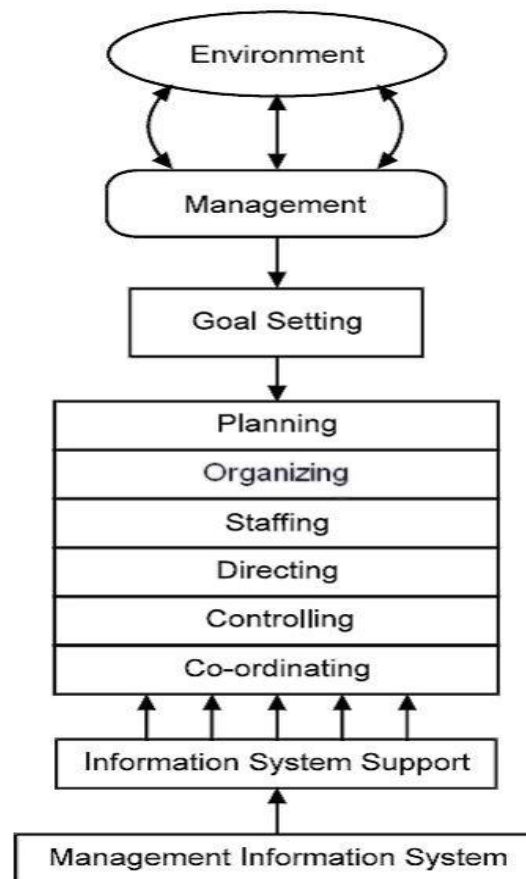

Figure 3: Functions of Manager

Organization Structure and Theory

An organization is the rational coordination of the activities of a number of people for the achievement of some common explicit purpose or goal, through division of labor or function, and through a hierarchy of authority and responsibility. Overall organizational agreements within an enterprise are provided by organization structure.

The organization's base rests on management's philosophy, values, vision and goals. This in turn drives the organizational culture which is composed of the formal organization, informal organization, and the social environment. The culture determines the type of leadership, communication, and group dynamics within the organization. The workers perceive this as the quality of work life which directs their degree of motivation. The final outcome is performance, individual satisfaction, and personal growth and development. All these elements combine to build the model or framework that the organization operates from. The organization structure is built on four basic principles:

♦   Hierarchy of authority.

♦   Specialization.

♦   Standardization (or formulation).

♦   Centralization.

Every organization is composed of certain parts. These parts then have their various functions and are interdependent on each other for a smooth functioning of the organization. An organization's structure is a framework that allots a particular space for a particular department or an individual and shows its relationship to the other. An organizational structure is a mostly hierarchical concept of subordination of entities that collaborate and contribute to serve one common aim. An organization's structure may be of many types, the most common of these being:

- The hierarchical organizational structure
- The flat organizational structure.

A **hierarchical organizational structure** is what we call the traditional structure or at times, the bureaucratic structure where there are one or more levels between the most junior and the senior most employees. This is the dominant mode of organization among large organizations; most corporations and governments are hierarchical organizations. This hierarchy helps in proper distribution of work but can be harmful in terms of efficiency and decision making. Hierarchical organizational structure has the following characteristics:

1. Low number of subordinates per supervisor.
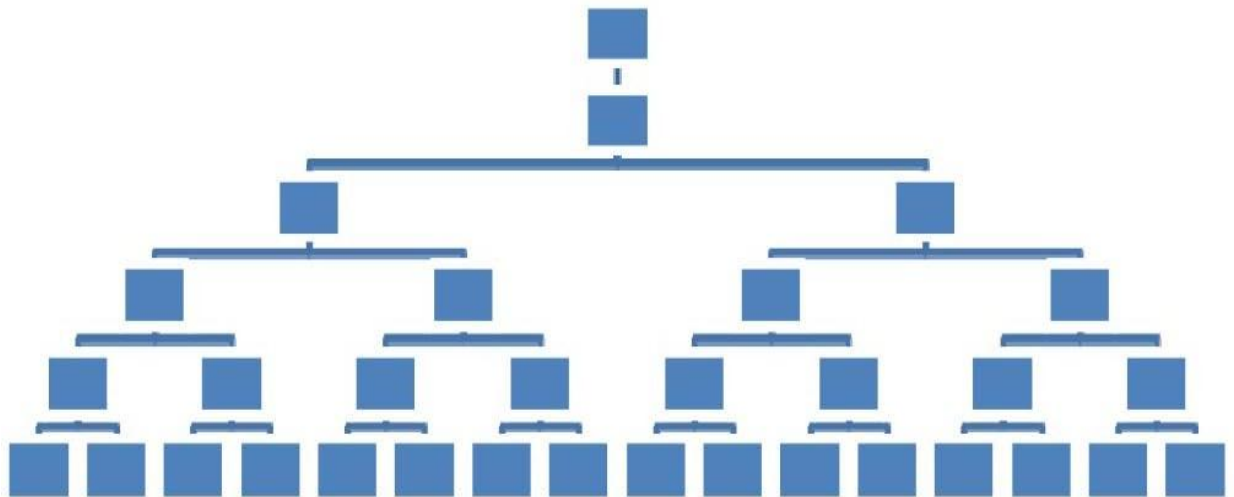2. Long chain of command.
3. Greater number of levels.

Figure 4: Hierarchical organizational structure

Flat organization refers to an organizational structure with few or no levels of intervening management between staff and managers. It is much more relaxed and so-called modern in

approach where everyone directly reports to a single boss.

The idea is that well-trained workers will be more productive when they are more directly involved in the decision making process, rather than closely supervised by many layers of management. This could provide greater speed in the decision making process but then the boss ends up taking care of a lot of things thus making delegation difficult.

This structure is generally possible only in smaller organizations or individual units within larger organizations. When they reach a critical size, organizations can retain a streamlined structure but cannot keep a completely flat manager-to-staff relationship without impacting productivity. Certain organizational responsibilities may also require a more traditional structure. Some theorize that flat organizations become more traditionally hierarchical when they begin to be geared towards productivity. Following are the characteristics of a flat organization.

1. High number of subordinates per supervisor.
2. Short of chain of command.
3. Less number of levels.
4. Eliminates middle level managers.
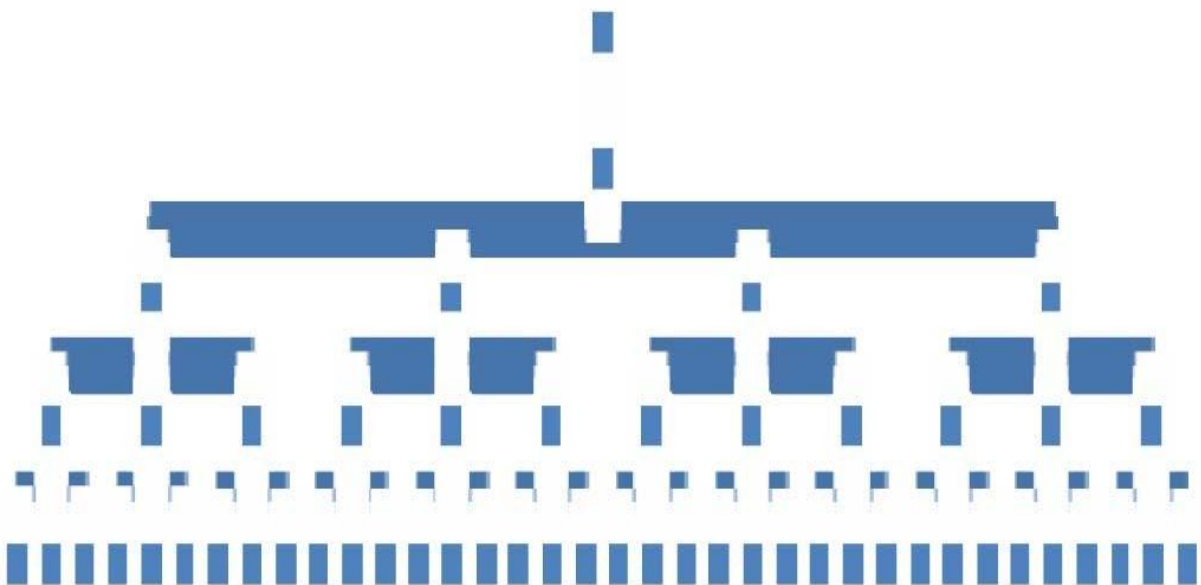5. Decentralizes authority to low level managers.

Figure 5: Flat organizational structure

An effective organizational structure shall facilitate working relationships between various entities in the organization and may improve the working efficiency within the organizational units. Organization shall retain a set order and control to enable monitoring the processes. Organization shall support command for coping with a mix of orders and a change of conditions while performing work. Below are the ***shared features*** of all organizations:

- Clear division of labor
- Hierarchy
- Explicit rules and procedures
- Impartial judgments
- Technical qualifications for positions
- Maximum organizational efficiency

Organization shall allow for application of individual skills to enable high flexibility and apply creativity. When a business expands, the chain of command will lengthen and the spans of control will widen. When an organization comes to age, the flexibility will decrease and the creativity will fatigue. Therefore organizational structures shall be altered from time to time to enable recovery. If such alteration is prevented internally, the final escape is to turn down the organization to prepare for a re-launch in an entirely new set up. It should be an open system capable of adjusting itself to the changing environment.

Organization and Information Requirements

Organizations have various attributes which distinguish them from each other. No two organizations are similar in all respects. There have to have certain distinctive lines keeping them unique from each other. Information requirements keep varying in accordance with:

- Size of organization.
- Organization structure.
- The Culture it follows.
- Decision Making Structures.
- Interested parties both internal and external.