

COURSE. : **III B. COM ( CA)**  
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SUBJECT. : MANAGEMENT INFORMATION SYSTEM  
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SYLLABUS. : MANAGEMENT INFORMATION SYSTEM : Meaning - Features - Requisites of an effective MIS - MIS model - Components - SUB system of an MIS - Role & importance - Centralisation Vs Decentralisation of MIS - Limitations of MIS

**MIS:**

Management information system is a system consisting of people, machines, procedures, databases and data models, as its elements. The system gathers data from the internal and external sources of an organization.

**MEANING:**

Management information system is an acronym of three words, viz., Management, information, system .in order to fully understand the term MIS, let us try to understand these three words.

**Management:**

Management is the art of getting things done through and with the people in formally organised groups.

Managerial function:

Planning

Organising

Staffing

Directing and

Controlling

**Information:**

Information is data that is processed and is presented in a form which assists decision-making. It may contain an element of surprise, reduce uncertainty or provoke a manager to initiate an action.

Data usually take the form of historical records. In contrast to information, raw data may not be able to surprise us, may not be organised and may not add anything to our knowledge.

DATA-----→PROCESSING-----→INFORMATION

### **System:**

The term system is the most loosely held term in management literature because of its use in different contexts. However, a system may be defined as a set of elements which are joined together to achieve a common objective. The elements are interrelated and interdependent.

The set of elements for a system may be understood as input, process and output. A system has one or multiple inputs; these inputs are processed through a transformation process to convert these inputs into outputs. The three elements of a system are

INPUT-----→PROCESS-----→OUTPUT

### **Features of information systems**

One of the mostly widely used bases for organising activities in almost every organisation is the business function. Business activities are grouped around functions such as production, marketing, finance and personnel etc... Resulting in the respective department or an area of the business organisation. These departments or functional areas are commonly known as the functional areas of business.

**sub-system** in an organisation, but a typical set of functions in a manufacturing organisation includes:

#### **Production**

Marketing, Finance and accounting, Materials and Personnel systems

Production planning and control, Engineering standards, Quality control, R & D et

#### **Marketing:**

Sales order, Forecasting, Sales analysis, Billing, Distribution, Stock availability, Sales quota control, Pricing, Product promotion

## **Finance and accounting**

Financial planning

Budgeting

Cost accounting

Asset accounting

Accounts receivable

Payroll

Accounts payable, etc...

## **Materials:**

Material planning

Bill of material

Cost estimate

Warehousing planning etc...

## **Personnel:**

Employee recruitment

Employee selection

Employee development

Employee transfers

Employee retirements etc...

## **Components /resources of information system.**

An information system depends on the resources of people, hardware, software, data and networks to perform

## **MIS consists of 5 major resources:**

### **People resources:**

People are the essential ingredient for the successful operation of all information systems.

This people resource includes:

End users are also called users or clients are people who use an information system or the information it produces. They can be customers, salespersons, engineers etc... Most of us are IS end users.

IS SPECIALISTS are people who develop and operate information system. They include system analysis, software developers, system operators and other managerial, technical and clerical IS personnel.

**Hardware resources:**

It includes all physical devices and materials used in information processing. Examples of hardware in computer based information system are:

Computer system which consists of central processing units containing microprocessors and a variety of interconnected peripheral devices. Example: handheld, laptop, midrange computer systems and large mainframe computer systems.

Computer peripherals which are devices such as a keyboard or electronic mouse for input of data and commands a video screen or printer for output of information and magnetic or optical disks for storage of data resources.

**Software resources:**

It includes all set of information processing instructions. It includes not only the set of operating instructions called programs. Examples are

System software such as an operating system program which controls and supports the operations of computer system.

Application software which are programs that direct processing for a particular use of computers by end users. Example sales analysis program, a payroll program and a word processing system.

**Data resources:**

Data resources of information systems are typically organised, stored and accessed by a variety of data resources mgt technologies into:

Database that hold processed and organised data.

Knowledge bases the hold knowledge in variety of forms such as facts, rules, and case.

**Network resources:**

Telecommunications technologies and networks like the internet, intranets and extranets. The concept of network resources emphasizes that communications technologies and networks are a fundamentals resource component of all information systems. Network resources include:

Communications media is includes twisted pairs wire, coaxial and fiber optic cables and microwave, cellular and satellite wireless technologies.

Network infrastructure this generic category emphasizes that many hardware, software and data technologies are needed to support the operation and use of a communication networks.

Different types of information.

Information could be classified on the basis of the purpose for which it is utilised,

Into

**three main categories:**

☞ Strategic information-----it is required by the managers at the strategic level of management for the formulation of organisational strategies.

☞ Tactical information -----information in this category is used in short term planning and is of use at management control level.

☞ Operational information-----it applies to short periods which may vary from an hour to a few days.

**Importance of information system.**

Meeting global challenges

Capturing opportunities in marketplace

Supporting corporate strategy

Linking departments whose functions are different

Enhancing worker productivity

Increase in quality of goods and services

**Role of information system.**

It shows the 3 major roles of the business applications of information systems. Example: consider a retail store as a good example of how these three fundamental roles can be implemented by a business.

☞ Support business processes and operations

☞ Support business decision making

☞ Support strategies for competitive advantage

**Support business processes and operations:**

As a consumer you have to deal regularly with the information systems that support the business processes and operations at the many retail stores where you shop. Example: most retail stores now use computer based information systems help them record customer purchase, keep track of inventory, pay employees, buy new merchandise and evaluate sales trends.

Support business decision making:

IS also help store managers and other business professionals make better decisions and attempt to gain a competitive advantage.

### **Centralization and Decentralization**

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

Reservation of decision making power at top level.

Reservation of operating authority with the middle level managers.

Reservation of operation at lower level at the directions of the top level.

Under centralization, the important and key decisions are taken by the top management and the other levels are into implementations as per the directions of top level. For example, in a business concern, the father & son being the owners decide about the important matters and all the rest of functions like product, finance, marketing, personnel, are carried out by the department heads and they have to act as per instruction and orders of the two people.

Therefore in this case, decision making power remain in the hands of father & son.

On the other hand, Decentralization is a systematic delegation of authority at all [levels of management](#) and in all of the organization. In a decentralization concern, authority is retained by the top management for taking major decisions and framing policies concerning the whole concern. Rest of the authority may be delegated to the middle level and lower level of management.

The degree of centralization and decentralization will depend upon the amount of authority delegated to the lowest level. According to Allen, “Decentralization refers to the systematic effort to delegate to the lowest level of authority except that which can be controlled and exercised at central points.

Decentralization is not the same as delegation. In fact, decentralization is all extension of delegation. Decentralization pattern is wider in scope and the authorities are diffused to the lowest most level of management.

Delegation of authority is a complete process and takes place from one person to another.

While decentralization is complete only when fullest possible delegation has taken place. For example, the general manager of a company is responsible for receiving the leave application

for the whole of the concern. The general manager delegates this work to the personnel manager who is now responsible for receiving the leave applicants. In this situation delegation of authority has taken place. On the other hand, on the request of the personnel manager, if the general manager delegates this power to all the departmental heads at all level, in this situation decentralization has taken place.

There is a saying that “Everything that increasing the role of subordinates is decentralization and that decreases the role is centralization”. Decentralization is wider in scope and the subordinate’s responsibility increase in this case. On the other hand, in delegation the managers remain answerable even for the acts of subordinates to their superiors.

#### **Reasons for centralization:**

Staff professionalism

Corporate database

Technical competence and research

Comparative cost advantage

#### **Implications of Decentralization**

There is less burden on the Chief Executive as in the case of centralization.

In decentralization, the subordinates get a chance to decide and act independently which develops skills and capabilities. This way the organization is able to process reserve of talents in it.

In decentralization, diversification and horizontal can be easily implanted.

In decentralization, concern diversification of activities can place effectively since there is more scope for creating new departments. Therefore, diversification growth is of a degree.

In decentralization structure, operations can be coordinated at divisional level which is not possible in the centralization set up.

In the case of decentralization structure, there is greater motivation and morale of the employees since they get more independence to act and decide.

In a decentralization structure, co-ordination to some extent is difficult to maintain as there are lot many department divisions and authority is delegated to maximum possible extent, i.e., to the bottom most level delegation reaches. Centralization and decentralization are the categories by which the pattern of authority relationships became clear. The degree of centralization and de-centralization can be affected by many factors like nature of operation, volume of profits, number of departments, size of a concern, etc. The larger the size of a concern, a decentralization set up is suitable in it.

#### **Reasons for decentralized:**

- 1.availability
- 2.Baclog of development work
- 3.user control over operation
- 4.organisational behaviour

### **Limitations and drawbacks of MIS are as follows**

A Management Information System (MIS) is a valuable tool company management uses to gauge the effectiveness of their business operations. The MIS can provide detailed insight to certain portions of a company and also assist management with making critical business decisions. While the style and format of the MIS has changed over the years, its use in management decisions has increased greatly.

### **Employee Training**

Properly trained employees are a critical part of an MIS. Employees are at the front lines of business operations and create or manage the daily activities of the company. If an MIS finds a system flaw or management decides to change a process based on the MIS information, re-training employees will usually be required. The length and depth of the training may vary, making it difficult to estimate the cost of this training. Management will also have to account for the lost productivity during this training period.

### **MIS Flexibility**

Once an MIS is created and installed in a company, it may prove to be an inflexible system. Making changes quickly to reflect fluctuating business operations may not be possible depending on the MIS style and functionality. While correcting policies such as internal controls or operating procedures may be easy, company-wide changes such as service changes, production enhancements or marketing strategy may not be simple. Major business changes will require major changes to the MIS, leading to increased costs and downtime of information reporting.

### **Information Flaws**

The MIS is designed to provide information to management so sound decisions can be made regarding company operations. The biggest flaw an MIS can have is pulling incorrect or inadequate information for management. This problem results in wasted time and money for the company, leading to another review of the MIS to correct the information flaws.



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