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Subject – Cost & Works Accounting - III

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***Topic 4 – Management
Information System
(MIS)***

➤ **Meaning of Management Information System (MIS)** –

MIS is a dynamic concept subject to change, time and again, with a change in the business management process. It continuously interacts with the internal and the external environment of the business and provides a corrective mechanism in the system so that the change needs of information are made effectively. The MIS therefore a dynamic design, the primary objective of which is to give information for decision making and it is developed considering the organisational fabric, giving due regard to the public in the organisational management functions and the managerial control.

MIS has more than one definition, some of which are given as below.

- 1) *MIS is defined as “a system which provides information support for decision making in the organization”.*
- 2) The MIS is defined as an integrated system of man and machine for providing the information to support the operations, the management and the decision-making function in the organization
- 3) MIS is defined as a system based on the database of the organization evolved for the purpose of providing information to the people in the organization.
- 4) MIS is defined as computer-based information system

➤ **MIS and Cost Accounting** –

MIS enables business organisations to provide appropriate answers to managers in search of knowledge. MIS does it by combining raw data about the organisation's operations with information collected from employees in expert systems that reflect the organisation's procedures. As organisation grows, MIS allows information to move between functional areas and departments instantly, reducing the need for face-to-face communications among employees, thus increasing the responsiveness of the organisation. Well-constructed and well-organised MIS can provide management with the knowledge it needs to reduce operating costs and increase profit.

➤ **Role of MIS in production** –

Strategic Role – This type of information is required at the top or senior manager level. A strategic decision by the production function of the management is a new plant location. A strategic decision for the marketing function is a survey of competition and the resulting strategy for gaining market share.

Tactical Role – This type of information is required at the middle level. This level is responsible for taking certain management relevant decisions with the help of cost control technique.

Operational Role – This type of information is required at the lower level of an organisation. Daily scheduling refers to assignment of jobs.

➤ **MIS helping in Decision Analysis -**

1. Make or buy
2. Use of alternative material
3. Use of alternative process
4. Rescheduling and loading of jobs
5. Planning and scheduling of jobs
6. Selection of production facilities

➤ **Characteristics or Features of MIS –**

1. Management oriented –

The development of MIS starts after deciding the management needs keeping in view the overall objectives of management.

2. Management Directed –

A proper MIS removes the lack of knowledge, enriches experience and improves analytical abilities leading to better business decisions and judgement.

3. Integrated system –

MIS binds together database of business system and through information interchange, interchange the organisation. It also provides adequate development resources and removes the human and organisational barriers to progress.

4. Common data flow –

MIS provides common data flows, which try to utilise minimum data processing efforts and minimise the number of output documents.

5. Avoid redundancy –

Since MIS is integrated system, it avoids unnecessary inconsistency and redundancy in data collection and storage.

6. Flexibility –

MIS design should be flexible so as to provide alternate ways of processing data and system should be easy to operate so that not much computer skills are required.

7. Common data base –

MIS acts as a master that holds the functional sub-system together. It achieves this aim by allowing access to different master files of data to several functional sub-system.

8. Heavy planning elements –

Designing and implementation of MIS require detailed and accurate planning of activities like acquisition and utilisation of resources.

9. Computerisation –

MIS can be computerised because of its nature. This provides speed, accuracy and consistency in creating and access of files.

10. Periodic evaluation –

The MIS should be evaluated at periodic intervals to ensure that MIS is achieving the objectives for which this has been installed.

➤ Components of MIS –

The MIS consists of following components:

1. People –

People is the first and the last only living component of MIS, which operates and control the all-other components of MIS. People enter, analyse and diagnose data, so that useful and relevant information is produced to top executives for decision-making.

2. Data process –

Data process uses different procedures, so that information can be properly analysed and effective information in generated.

3. Data communication –

Data communication may be orally or in the form of written report. Written forms are more appropriate way of communicating organisational information.

4. Information –

There is a subtle difference between data and information. Data are the facts or details from which information is derived. For data to become information, data needs to be put into context. Data is a process by applying different procedures to obtain information. It may be recorded into computer storage media or manual files and it can be retrieved whenever required.

5. Hardware and software –

The hardware generally consists of computer equipment's, on the other hand software consists of programme or instructions given to the computer such as invoice, wage sheet etc.

• Objectives of MIS –

1. MIS is very useful for efficient planning and control functions of the management
2. MIS is helpful in controlling costs by giving information about idle time, labour turnover, wastages and losses and surplus capital

3. MIS reports give an idea about performance of men, material, machinery, money management
4. MIS brings to the notice of the management strengths of the organisation, to take advantages of the opportunities available
5. MIS reports on production statistics regarding rejection, defective and spoilage and their effect on costs and quality of the products
6. MIS provides a system of people, computers, procedures, interactive query facilities, documents collection, sorting and transmitting information to the users

➤ **Advantages of MIS –**

1. Generates competitive advantage –

Business houses succeed or fail based on how they face competitive challenges. MIS if implemented properly, provides a wealth of information to allow management to construct and develop effective plans to meet and beat, their competition.

2. Implementation of Management by Objective (MBO) –

MIS allow all participants, both management and staff, to view, analyse and interpret useful data to set goals and objectives.

3. Fast reaction to market changes –

MIS can deliver facts, data and trends to business with lightning speed. Having this information allows business houses to react quickly to market changes.

4. MIS as strategic resource –

MIS helps in taking strategic, tactical and operational decisions. It helps the management to understand cost, quality, price, technology, productivity and product. It helps to smoothen the business process and thereby facilitate managing of business operations. It will help in taking new business decisions like new plans, new products, new business line etc. It provides future direction to the organisation.

5. Change in industry structure –

MIS helps in changes in industry structure – this includes below factors:

- Customers bargaining power
- Suppliers bargaining power
- Threats of new entrant in market
- Pressure from substitute products and services
- Existing industry competitors
- New business initiatives
- New way of doing business

6. Availability of costumer data –

MIS giving an overall picture of the company and acting as a communication and planning tool. The availability of the customer data and feedback can help the business to align their business process according to the need of the customers.

7. Functional use –

Functional use of MIS includes:

- Lower the cost
- Information and information system facilitates value chain. e.g. product delivery, quality. It increases the speed, accuracy and timeliness of the organisation. It helps in simplifying the business processes. It helps organisation in meeting the standards and benchmarks.

➤ Major Challenges in MIS implementation –

- Quality, content and context of information – how much information and exactly what should it describe
- Nature of analysis and presentation – comprehensibility of information
- Availability of information – frequency, contemporariness, on demand or routine periodic or occasional, one time information or repetitive in nature and so on.
- Accuracy and reliability of information
- Security and authentication of the system

➤ Planning for MIS

MIS design and development process has to address the following issues successfully –

- There should be effective communication between the developers and users of the system.
- There should be synchronization in understanding of management, processes and IT among the users as well as the developers.
- Understanding of the information needs of managers from different functional areas and combining these needs into a single integrated system.
- Creating a unified MIS covering the entire organization will lead to a more economical, faster and more integrated system, however it will increase in design complexity manifold.
- The MIS has to be interacting with the complex environment comprising all other sub-systems in the overall information system of the organization. So, it is extremely

necessary to understand and define the requirements of MIS in the context of the organization.

- It should keep pace with changes in environment, changing demands of the customers and growing competition.
- It should utilize fast developing in IT capabilities in the best possible ways.
- Cost and time of installing such advanced IT-based systems is high, so there should not be a need for frequent and major modifications.
- It should take care of not only the users i.e., the managers but also other stakeholders like employees, customers and suppliers.

➤ **Cost Management System (CMS) under MIS –**

A cost management system (CMS) consists of a set of formal methods developed for planning and controlling on organisation's costs. Managing activities relate to its short-term activities and long-term strategies. It should provide information to meet two major challenges:

- i) Profitability in the short-term and
- ii) Maintaining a competitive position in the long-term

Primary objectives of CMS

- Develop reasonably accurate product costs.
- Assess product/service life cycle performance
- Improve understanding of processes and activities
- Control costs
- Measure performance
- Allow pursuit of organisational strategies