
CHAPTER - 3.

- 3.1 Introduction to Management Information System**
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3.1 Introduction to Management Information system

MIS is combination of three terms Management Information and system. The following definition of the key words as offered by R.G.Murdic and J.E.Ross will clarify the concept of MIS

MANAGEMENT

Management for purposes of MIS consists of activities carried out by Managers. To plan, organise and control the major activities of organisation and initiate action. Because decision making is a major requirement for each of the managerial functions, the MIS becomes a facilitating system for developing decisions in planning, organising controlling and initiating.

INFORMATION

Information is definitely different from data and this distinction is very important. Data are facts and figures that are not currently being used in a decision process. Files, records and reports not under consideration are examples. In contrast information consists of classified and interpreted data that are being used for decision making.

SYSTEM

A system is a set of two or more elements, such as people, things and concepts which are joined together to attain a common objective. If we identify a particular system of interest to us, we often find that it consists of a number of 'smaller' systems which we may sometimes continue down in hierarchy of subsystems until we reach the basic elements mentioned in definition of system. Information system integration is also achieved through standards, guide-lines and procedures set by the MIS function.

Information resource management(IRM) is an approach to management based in the concept that information is an important resource. The MIS concept includes the resource view of information.

Peter Keen one of the leaders in the field of MIS defines MIS as effective design delivery and use of information system in organisation. Information is knowledge delivered from data.

Characteristics of good Information -

1. Information must be pertinent.
2. Information must be timely available.
3. Information must be accurate.
4. Information should reduces uncertainty.

Systems - System is a group of components that interact with each other to achieve a specific purpose.

Information systems - is a group of components that interact to produce information. The information system consists of people, procedures and data.

Computer Information systems - that include a computer. Computer system consists of people, procedures, data programs and computers. Programs are instructions for computers, just as procedures are instructions for people. The computer can serve several roles in the production of information. First it can serve as data storage and retrieval device. In this model the computer acts as a data libration. Second the computers can provide processing capabilities for production of information. Third computers can serve as a communication device to obtain data or information from other computers. Finally the computer can

present information by producing tables, reports, charts graphs and formatted documents.

Characteristics of MIS -

1. **Management oriented** - As system designed top to down.
2. **Management directed** - Management actively direct the system development efforts.
3. **Integrated** - Integration is significant because of the ability to produce more meaningful management information. Integrated system that blends information from several operational areas in a necessary element of MIS .
4. **Common data flows** - because of integration concept of MIS, there is an opportunity to avoid duplication and redundancy in data gathering storage and dissemination.
5. **Heavy planning element** - Heavy planning element must be present in MIS development. It should consider future expansion in future.
6. **Subsystem concept** - The breakdown of MIS into meaningful subsystems sets the stage for a prioritised implementation.
7. **Flexibility and ease of use** - MIS development should include flexibility.
8. **Data base** - if the data is stored efficiently and with common usage in mind, one master file can provide the data needed by any of functional systems.
9. **Distributed Data processing** - two or more information subsystems in different locations act as a co-operative fashion. Teleprinters, networking or just

plain communication system are important examples of distributed data processing.

10. **Information as Resource** - It is valuable resource particularly in the management control and strategic planning areas and must be properly managed.

The management information system receives inputs from the firms operational subsystems like Marketing, Production, Finance, Administration, and as well as from labour unions, Government agencies, economic reports, vendors, customers etc., the firms environment. These inputs are in the form of raw data and semi-processed information. The form of design or design group which also determines the processing methods, the format and content of the output. The process activities consists of transforming the input into the prescribed output documents and reports by the use of an electronic device like computer. The outputs are sent to respective management levels and to the outside agencies too. The control elements monitor the system to ensure the accuracy and reliability of the information.

Development of MIS CONCEPT :

A Management Information System serves and supports the process of managerial activities. Contribution and growth of MIS concept has been made by two streams of people. firstly by those researchers and professionals in management who are concerned with improving the effectiveness of managerial decision-making process. Secondly, by those working with data processing systems who wanted to make their data processing activity more efficient useful.

MIS

Management information system (MIS) is management for decision making and to asses a situation for planning> It is the result of properly planned effort.

It is generally understood that MIS is a need of business organisation. However, MIS is needed for business organisation. It is needed at all places such as university, Hospitals, Banks, schools small or big.

The function of management is planning, organising, staffing, directing co-ordinating and controlling. The function is conducted through process of decision making and by constant evaluation of business situation. A good MIS design fulfils these needs.

EXPERT SYSTEM

The near future is going to witness the wide spread use of expert systems. Expert systems use artificial intelligence to diagnose problems, recommend strategies to avert or solve these problem, offer a rational for this recommendation and 'learn' from each experience. In effect, the expert system act like a human 'Expert' in analysing unstructured situation.

DECISION SUPPORT SYSTEM:

A decision support system (DSS) is an information system application that assists decision making. DSS to be used in planning, analysing alternatives and trial and error search for solutions.

Recent advances in computer hardware and software have made it possible for E.D.P./M.I.S. experts, and then for managers, to gain on line or real time access to the data bases in Computer Based Information Systems. The wide spread use of micro computers has enabled managers to create their own data bases and electronically manipulate information as needed rather than waiting for reports to be issued by efficiently developed programmes or M.I.S. departments.

SIGNIFICANCE OF MIS

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'To manage a business well is to manage its future and to manage its future is to manage the information.'

In carrying out management activities such as planning implementation and control. Management people need information at almost every turn. They need information about customers, competitors change in business environment and other forces in them as market place.

Today many environmental forces make it imperative that every firm manage its management information as effectively as possible from the following reason it would clear the significance of M.I.S.

1. SCOPE OF MANAGEMENT ACTIVITIES

Management activities are becoming more complex and broader in its scope. Companies are expanding their activities rapidly. In this changing environment everyone is trying to capture the market for achieving pre-determined target i.e. maximisation of profit. To reach this pre-determined goal management has to perform various types of business activities for which the management people need lot of information from different sources.

2. TO TAKE PROPER DECISIONS:

A company needs to know which of its products or services are profitable, its share in the total market, growth rate of company and their objectives. A part from this in the changing environment it is necessary to consider likings, demand of existing and potential customers, technological changes, buyers behaviours etc., so as to keep pace with changing environment effective and rational decisions need to be taken which ultimately calls information of various types.

3. GROWING CONSUMER, PUBLIC SHAREHOLDER DISCOUNT:

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Dissatisfaction among the customers shareholders, general public is intensified because management lacks adequate information about some aspect of management programme. A management information system can help managers to cope up with each of these dynamic forces.

In every rapid changing environment it is very difficult to manage the business systematically unless company has developed a systematic M.I.S. otherwise this complex set of interrelated environmental factors poses a formidable array of challenges to management.

MEDIA OF INFORMATION:

The information is generally operated or transformed through a number of medias such as oral, written, records, accuracy, safety, secrecy, impression, cost flexible concise speed etc.,

1. ORAL

Face to face, telephone, signals, loud-speaker, calling bells etc.,

2. WRITTEN

Report statements, charts, graphs, conveyor system etc., in order to decide the means of information transmission to be used the following points should be considered.

a. RECORDS

It is necessary that the information should be in writing for the purpose of record.

b. ACCURACY:

Information should be received accurately. If figures are spoken over telephone they are liable to misheard.

c. SAFETY:

There is risk of losing the information in transit.

d. SECRECY:

There may be possibility of leakage of information. Does it matter if persons other than the recipient become aware of the information.

e. IMPRESSION

The information should be in such form as to produce the desired effect on the person receiving it, e.g. urgent information should be given by telex instead of letters etc.,

f. COST:

The cost of information should be proportional to the benefits that accrue from the information system. Otherwise merely gathering of information creates obstacles in making use of information flow.

g. FLEXIBLE:

The information system should be such as to adjust itself according to the changes prevail in conditions. The existing systems should not be modified to adjust itself to a changed environment, but every system should be flexible enough to integrate changes that may occur either in the environment or in the nature of inputs. Rigidity to the system should always be avoided.

h. CONCISE:

The information should be as concise as possible. Information should be to the point.

i. SPEED

How soon after dispatch must the information reach the person for whom it is intended documents, whereas, machines, receive information in the form of tapes, cards etc.

LEVELS OF MANAGEMENT

The term levels of management refers to a line of limits between various managerial positions in an organisation. To communicate the policies of the management, steps are required for easy passage towards the workers. In order to pass the technique of management towards subordinates level's are constructed from top to bottom(Workers).

The number of levels of management increase when the size of the business and work force increase. But it cannot be increased to an communication, co-operation and control, on the other hand it should be winded to restrict the number of managerial levels. Though some of the companies have an organisational hierarchy consisting of four, five or more levels but there are mainly three levels of management.

1. TOP MANAGEMENT:

It consists of the Board of Directors, Managing Director and General Manager etc.

2. MIDDLE MANAGEMENT:

It consists of departmental or executives or Managers responsible for important functions such as purchase stores, production sales, finance accounts etc.,

3. LOWER LEVEL OR OPERATING MANAGEMENT:

It consists of supervisors, foreman or next to departmental heads etc.,

INTERACTION OF THE LEVEL OF MANAGEMENT:

Top management establishes the policies, plans and objectives of the company. It also establishes the general budget frame work under which the various departments will operate. These factors are passed down to middle management.

The policies plans, objectives and the other factors passed from top management are translated by the middle management into specific revenue, cost and profit goals, particularly if each department works under a cost or profit centre concept. These are reviewed, analysed and modified in accordance with the over all plans and policies until agreement is reached. Then the middle management issues the specific schedule and measurement yard sticks to the lower or operating management.

Lastly, the result of operating managements activity is the end product itself. It has the job of producing goods and services required to meet the revenue profit goals. This will enable the company to reach its overall plans and objectives.

REPORTING AND LEVELS OF MANAGEMENT:

It has been already seen that the nature of reporting is different at various levels of management even in the same company. Therefore, it is necessary to study the nature of reports required by different levels of management.

1. REPORTING AND TOP LEVEL MANAGEMENT:

Top level management makes long range policies and takes decisions relating to the objectives of the business. Therefore, the reporting for this level should process the following characteristics.

- a. It should focus on the efficiency of the departmental operations and inefficiency of the departmental operations.
- b. The information supplied should be profit motivated.
- c. Only those facts which deviate from the standards fixed should be reported.
- d. An analysis for the deviations should be given.
- e. It should cover commercial and financial aspects bringing out all the activities which have financial bearing.
- f. Though it should cover all the activities, instead of details, only the summarised important points should be given.
- g. Reporting for this level should follow the principle of 'Reporting by exception'.

2. REPORTING AND MIDDLE MANAGEMENT:

This is the level which is responsible for the implementation of the plans and policies set by the top management. This level is required to take short term decisions. This level has to control only its particular function and it is not necessary to keep into the function of others.

Therefore, the reporting for this level should show the results of operating level. These reports should be slightly broad based than those of lower level. These reports should show the efficiency for the concerned group or department.

3. REPORTING AND OPERATING MANAGEMENT:

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This is the level which is directly responsible for the day to day operations of the various sectors of the business. This level has nothing to do with the formation of plans and policies of the business.

The reports for this level should be detailed and specific restricted to the activity with which the foreman or supervisors are concerned. These reports should state the variations of actual performance from the plans. These variations should be both in physical and monetary terms.

LIMITATIONS OF MANAGEMENT INFORMATION SYSTEM:

MIS is for better management but in itself is not management. It is neither a place bon nor a cure-all. It cannot think and act for the management. It can simply shape thoughts and assists in the evaluation of situation. As a concept it is too much over sold and yet it is unutilised. In installing the system substantial commitment of time and money is needed. The cost involved in the system should be weighed with value of information competent executives who know well organisational policies and technicians who are acquainted with the new information technologies need be employed. The organisation must use sound methods of oppressing the MIS approach and of determining which kind of MIS best suits the requirements and resources for organisation. These are some of the limitations which should be taken care of.

However, the future of information system is bright. Future information system will depict significant improvements in means of communication within the system. They will more nearly parallel. They will be flexible enough to incorporate the changes in the dynamics of management.

3.2 Study of

Present Reporting procedure adopted in organisation -

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All the departments involved in production prepare summary of data e.g. Milk Collection summary, Milk distribution summary, balance of milk, summary of processed and production of various products also prepared by respective departments. Copy of each report is sent to Chairman, Managing Director, General Manager, M.I.S. and other related departments. These reports are -

1. Daily Reports

- a. Milk and Cattle feed production.
- b. Milk Procurement and disposal.
- c. Dairy Production - Dispatch and Closing Balance.
- d. Finish Product Godown - Dispatch and sale.
- e. Milk sales Report except Bombay.
- f. Cattle feed Production & sale with Closing Balance.
- g. Sour Milk Report.

2. 10 Days Reports:-

- a. Milk Procurement and disposal.

3. Monthly Reports :-

- a. Milk Procurement, Milk Sales and Plant Handling.
- b. Chilling Centre wise handling Report.
- c. Monthly Average Milk Handling.