



Subject: Management Information System

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b) Processing.

It involves transformation process that converts input to output.

c) Output.

It involves transforming element that has been produced by a transformation process to their ultimate destination.

1.7.3. Types of System

a) Dynamic System:

When the interrelated component of the system interacts with each other and this controlled by management then it is known as Dynamic System.

b) Cybernative System

Dynamic System implementing the concept of feedback and control is known as Cyber native System.

c) Open System

A system got interacts with other system in its environment by exchanging input and output with its environment

d) Adoptive System

A System having the ability to change itself and its environment in order to survive is called an Adoptive System.

1.8. Data and information

By data we mean the facts or figures representing an object, place or the events occurring in the organization. It is not enough to have data (such as statistics on the economy). Data themselves are fairly useless, but when these data are interpreted and processed to determine its true meaning, they become useful.

Characteristics of Data

- They are facts obtained by reading, observation, counting, measuring and weighing etc. which are then recorded
- Data are derived from external and internal sources (activities with firm).



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- Data may be produced as an automatic by-product of some routine but essential operation such as the production of an invoice or alternative a special counting or measuring procedure must be introduced and the result recorded.
- The source of data need be given considerable attention because if the sources of the data flawed, any resulting information will be worthless.

Data Processing

Data or processing systems perform the essential role of collecting and processing the daily transactions of the organizations. Data processing is necessary to ensure that the day-to-day activities of the organization are processed, recorded and acted upon. Files are maintained which provide both the current data for transaction, for example the amount invoiced and cash received during the month for statement preparation, and which also serve as a basis for operational and tactical control and for answering enquiries.

By **information**, we mean that the data have been shaped into a meaningful form, which may be useful for human beings.

So, when **data** are processed, interpreted, organized, structured or presented so as to make them meaningful or useful, they are called information. **Information** provides context for data.

Information is created from organized structured and processed data in a particular context, "information can be recorded as signs, or transmitted as signals. Information is any kind of event that affects the state of a dynamic system that can interpret the information. Conceptually, information is the message (utterance or expression) being conveyed. Therefore, in a general sense, information is 'knowledge communicated or received concerning a particular fact or circumstance'".

Characteristics of Good Information

Good information is that which is used, and which create value. Experience and research show that good information has numerous qualities which are:

- 1) **Relevance:** Information must be relevant to the problem being considered. Too often reports, messages, tabulations etc. contain irrelevant parts which most prevent the user of the information to get the actual meaning of what the sender wants.
- 2) **Accuracy:** Information should be sufficiently accurate for it to be relied upon by the manager and for the purpose for which it is intended.
- 3) **Completeness:** Ideally, all the information required for a decision should be available. However, in practice, this is not often obtainable. What is required is that the information is complete in respect of the key elements of the problem. This suggests that there should be interaction between information providers and users to ensure that the key factors are identified.
- 4) **Confidence in the source:** For information to have value it must be used. For it to be used managers must have confidence in the source. Confidence is enhanced:
Data Processes Output
 - a) The source has been reliable in the past
 - b) There is good communication between the information producer and the manager.

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- 5) **Communication to the right person:** All persons have a defined sphere of activity and responsibility and should receive information to help them carry out their designated tasks. In practice this is not always as easy as it sounds. It is quite common for information to be supplied to the wrong level in the organization. a superior may not pass it on the person who needs it whilst subordinates may hold onto information in an attempt to make themselves seem indispensable.

Functions of Information

- a) **Reduction of Uncertainty:** Uncertainty exist where there is less than perfect knowledge. Rarely, if ever is there perfect knowledge but relevant information help to reduce the unknown.
- b) **An aid to monitoring and control:** By providing information about performance and the extent of deviations from planned level of performance, management are better able to control operation.
- c) **As a means of communication:** Managers need to know about developments, plans, forecasts, impending changes and so on.
- d) **As a memory supplement:** By having historical information about performance, transactions, results of past actions and decisions available for reference, personal memories are supplemented.
- e) **As aid to simplification:** By reducing uncertainty and enhancing understanding, problems and situations are simplified and become more manageable.

1.9. Information System

Meaning: An information system can be any organized combination of people, hardware, software, communication software and data resource that collects transformation or screening the information in an organization.

Definition: An information system can be defined as a set of interrelated components that collect (or retrieve), process, store and distribute information to support decision making, coordination and control in an organization.

