Management Information System

Data are raw materials from which information can be produced

Data

- Quantities character or symbol on operation are performed by computer which may be stored and transmitted in the form electrical signals is known as the data
- Character are A,B,C etc
- Symbol +,=,- etc
- Qunatities 1,2,3 etc
- Data can be no ,text, image , audio.

Data processing cycle

- Data Processing Cycle
- Data processing is the re-structuring or re-ordering of data by people or machine to increase their usefulness and add values for a particular purpose. Data processing consists of the following basic

input → processing → output.

Input

- **Input** − In this step, the input data is prepared in some convenient form for processing. The form will depend on the processing machine. For example, when electronic computers are used, the input data can be recorded on any one of the several types of input medium, such as magnetic disks, tapes, and so on.

Processing

- **Processing** − In this step, the input data is changed to produce data in a more useful form. For example, pay-checks can be calculated from the time cards, or a summary of sales for the month can be calculated from the sales orders.
- **Output** − At this stage, the result of the proceeding processing step is collected. The particular form of the output data depends on the use of the data. For example, output data may be pay-checks for employees.

Information

- classified data, which has some meaningful values for the receiver.
- Information is the processed data on which decisions and actions are based.
- the decision to be meaningful, the processed data must qualify for the following characteristics
- **Timely** − Information should be available when required.
- **Accuracy** − Information should be accurate.
- **Completeness** − Information should be complete.

Information system'

- Information systems are combinations of hardware, software, and telecommunications networks that people build and use to collect, create, and distribute useful data, typically in organizational settings.
- Information systems hardware is the part of an information system you can touch – the physical components of the technology. Computers, keyboards, disk drives, iPads, and flash drives are all examples of information systems hardware.

Software

- Software is a set of instructions that tells the hardware what to do. Software is not tangible – it cannot be touched. When programmers create software programs, what they are really doing is simply typing out lists of instructions that tell the hardware what to do.

The Role of Information Systems

- Now that we have explored the different components of information systems, we need to turn our attention to the role that information systems play in an organization. So far we have looked at what the components of an information system are, but what do these components actually do for an organization? From our definitions above, we see that these components collect, store, organize, and distribute data throughout the organization. In fact, we might say that one of the roles of information systems is to take data and turn it into information, and then transform that into organizational knowledge. As technology has developed, this role has evolved into the backbone of the organization. To get a full appreciation of the role information systems play, we will review how they have changed over the years.

Role of information system in Hospital

- Help to coordination among the subsystem.
- Help in Smooth functioning of Hospital system
- Service system
- Management System
- Supply System
- Management system

Computer base information system(CBIS)

- Easy to access
- Low cost
- Accurate
- Timely
- Less time consuming
- Computer based information systems the basic management functions of planning and controlling now mostly depend to CBIS that makes the decisions more structured.

CBIS

- In Information Systems' computer-based "means that the computer plays an important role in an information system. A computer- based information system, or CBIS, uses computers to collect, process, store, analyze and distribute information for a specific purpose, such as meeting a business objective.
- 10. Roles and function of Computer Based Information System (CBIS) Functions CBIS : Input : Consists of raw data either from organization or outside the organization to be processed Process : Transfer raw data into useful information Output : Information that has been processed Storage : A place to store the useful information Control : Control the evolving of information system

- 10. Roles and function of Computer Based Information System (CBIS) Functions CBIS :
- Input : Consists of raw data either from organization or outside the organization to be processed
- Process : Transfer raw data into useful information
- Output : Information that has been processed
- Storage : A place to store the useful information
- Control : Control the evolving of information system

- COMPONENTS OF COMPUTER BASED INFORMATINO SYSTEM:
- Computer Based Information System (CBIS) is an information system in which the computer plays a major role. Such a system consists of the following elements:
- Hardware ,Software Data Procedure People

- Hardware: The term hardware refers to machinery. This category includes the computer itself, which is often referred to as the central processing unit (CPU), and all of its support equipment. Among the support equipment are input and output devices, storage devices and communications devices.

- Software is a set of instructions that tells the hardware what to do. Software is not tangible – it cannot be touched. When programmers create software programs, what they are really doing is simply typing out lists of instructions that tell the hardware what to do.

- Procedures are the policies that govern the operation of a computer system. “Procedures are to people what software is to hardware” is a common analogy that is used to illustrate the role of procedures in a CBIS.

- People are required for the operation of all information system. Every Computer Based Information System (CBIS) needs people if it is to be useful. Often the most over-looked element of the CBIS is the people. probably the components that most influence the success or failure of information system.

Types of Computer Based Information Systems

- A) Management Information System
- B) Decision Support Systems
- C) Executive support system
- D)Expert System
- E)Transaction Processing Systems
- F)Office Automation Systems
- G)Accounting Information system

MANAGEMENTINFORMATIONSYSTEM:

Data processing by computers has been extremely effective because of several reasons. The main reason being that huge amount of data relating to accounts and other transactions can be processed very quickly.

Earlier most of the computer applications were concerned with record keeping and the automation of routine clerical processes.

MIS are more concerned with management function.

MIS can be described as information system that can provide all levels of management with information essential to the running of smooth business. A management information system is an information system that generates accurate, timely and organized information for decision making.

use

- The information can be used by managers and other users to make decision and solve problems.
- This information is used by related management information system to produce reports of daily sales activities and prepare list of customers with due account balance.
- EXAMPLES: Sales management ,Inventory control , Capital investment analysis

DSS

- A decision support system helps users to analyze the information and make decision.
- Decision support system may include data from internal source (TPS,MIS) or external source.
- Decision makers use Decision Support System to design decision models.
- Decision model is a numerical representation of a realistic situation such as cash flow model of a business that shows how income adds to cash accounts and how expense deplete accounts.

COMPONENTS OF DSS:

INPUTS User knowledge and Expertise

Outputs

Decision Example: Analyzing the effects of events such as strikes, rising interest rates, etc.