

Information systems

What is information system?

Information system, an integrated set of components for collecting, storing, and processing data and for providing information, knowledge, and digital products.

What is the main use of information system?

An information system is the software that helps organize and analyze data. The purpose of an information system is to turn raw data into useful information that can be used for decision making in an organization. The objective of information systems is to provide information to all levels of management at the most relevant time at an acceptable level of accuracy, and at an economical cost. Individual businesses require information according to the nature of their operations.

Some of the example of information system are:

- A car manufacturer is particularly interested in the extent of competition from overseas manufacturers in the home market and competition from other home-based manufacturers
- A tour operator is concerned about purchasing power and its effect on holiday bookings and the political situation prevailing in the various countries. 10 As a general guide, the detail contained in reports containing information varies according to the position of the recipient in the hierarchical management structure.

The information system may vary according to the position of the recipient in the hierarchical management structure for example The chairman and managing director of a company require details of operations which are broad in scope and which concentrate on key factors pinpointing economic and financial trends. Functional management require information relating to the departments they are responsible for in sufficient detail to enable them to apply whatever measures are required to bring situations into line with requirements. They require information relating to events as they occur so that appropriate action can be taken to control them

Why the information system are often computerized?

Information systems are often computerized because of the need to respond quickly and flexibly to queries. . At the bottom level in the information hierarchy are the transaction processing systems, which capture and process internal information, such as sales, production, and stock data. These produce the working documents of the business, such as 2invoices and statements. Typically, these are the first systems which a company will install.

What are the component of information system.

The component of the information system are:

- Computer hardware
- Computer software
- Telecommunication
- Databases and data warehouses
- Human resources and procedures

Computer hardware

This is the physical technology that works with information. Hardware can be as small as a smartphone that fits in a pocket or as large as a supercomputer that fills a building. Hardware also includes the peripheral devices that work with computers, such as keyboards, external disk drives, and routers. With the rise of the Internet of things, in which anything from home appliances to cars to clothes will be able to receive and transmit data, sensors that interact with computers are permeating the human environment.

Computer software

The hardware needs to know what to do, and that is the role of software. Software can be divided into two types: system software and application software. The primary piece of system software is the operating system, such as Windows or iOS, which manages the hardware's operation. Application software is designed for specific tasks, such as handling a spreadsheet, creating a document, or designing a Web page.

Telecommunications

This component connects the hardware together to form a network. Connections can be through wires, such as Ethernet cables or fiber optics, or wireless, such as through Wi-Fi. A network can be designed to tie together computers in a specific area, such as an office or a school, through a local area network (LAN). If computers are more dispersed, the network is called a wide area network (WAN). The Internet itself can be considered a network of networks.

Databases and data warehouses

This component is where the “material” that the other components work with resides. A database is a place where data is collected and from which it can be retrieved by querying it using one or more specific criteria. A data warehouse contains all of the data in whatever form that an organization needs. Databases and data warehouses have assumed even greater importance in information systems with the emergence of “big data,” a term for the truly massive amounts of data that can be collected and analyzed.

Human resources and procedures

The final, and possibly most important, component of information systems is the human element: the people that are needed to run the system and the procedures they follow so that the knowledge in the huge databases and data warehouses can be turned into learning that can interpret what has happened in the past and guide future action.

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Thank you