

## **Information system & its components**

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An information system is a combination of software, hardware and telecommunication network to collect useful data, especially in an organization. Many business use information technology to complete and manage their operations interact with their consumers, and stay head of their competition. Information systems (IS) are critical to the operation of modern organizations. They are interconnected networks of hardware, software, data, people, and procedures designed to collect, process, store, and disseminate information to aid in decision-making, coordination, and control. The rise of digital technologies, as well as the increased use of computers and the internet, has altered how organizations operate and interact with their stakeholders. In a rapidly changing business environment, information systems have become critical tools for organizations of all sizes and types to remain competitive, efficient, and effective. They assist organizations in achieving their objectives by enhancing internal operations, facilitating communication and collaboration, and assisting in strategic decision-making. Information systems study is multidisciplinary, combining elements of computer science, management, and information technology.

In today's business, information systems are critical because they allow organizations to collect, store, and process data to make informed decisions. These systems can be used to improve internal and external communication and collaboration, as well as gain insights into customer behavior and market trends. Furthermore, by providing real-time data and analysis, they can help businesses become more agile, responsive to market changes, and competitive. Information systems are critical for businesses to operate effectively and efficiently in today's fast-paced and data-driven environment.

The combination of hardware, software, data, people, and procedures that organizations use to collect, process, store, and disseminate information is referred to as an information system. These systems aid in decision-making, coordination, and control, and they assist organizations in achieving their objectives. Simple manual systems to complex computer-based systems that automate many business processes are examples of information systems.

### **Definition of information system:**

“**An information system** is a set of interrelated components that work together to collect, process, store, and breakdown the information to support decision making.”

“**Information system** (IS) is the study of complementary networks of hardware and software that people and organizations use to collect, filter, process, create, and distribute data.”

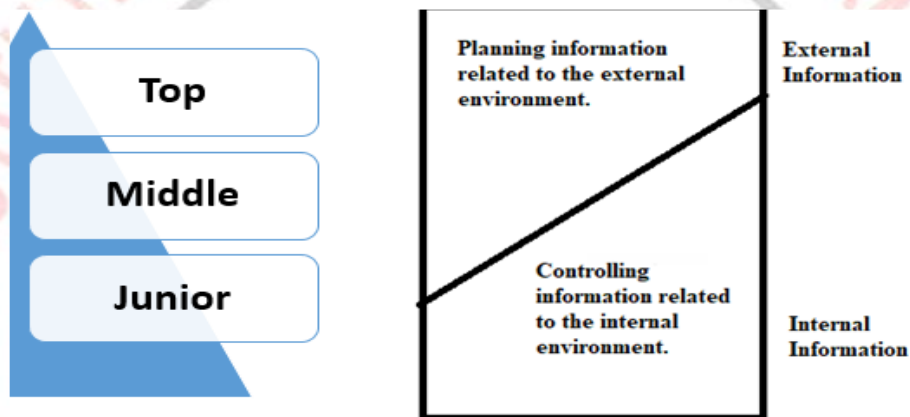
“**Information systems** are combinations of hardware, software, and telecommunications networks that people build and use to collect, create, and distribute useful data, typically in organizational settings.”

“**Information systems** are interrelated components working together to collect, process, store, and disseminate information to support decision making, coordination, control, analysis, and visualization in an organization.”

## Types of information

There are two types of information internal information and external information.

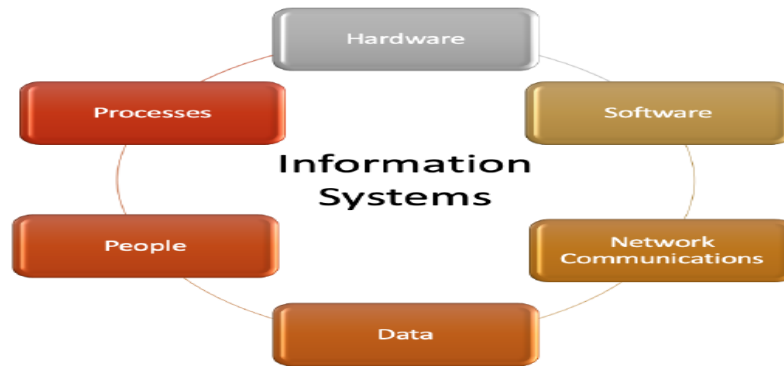
1. **Internal Information:** Internal Information is defined as information generated by the organization's operations at various management levels in various functional areas. Internal information is summarized and processed as it progresses from the lowest to the highest levels of management. Internal information is always about the organization's various operational units. Production figures, sales figures, personnel, account, and material information are all examples of internal information. This type of information is typically consumed by middle and junior management levels. However, top-level management consumes summarized internal in format on.



2. **External Information:** External information is typically gathered from the business organization's surroundings. External information is defined as information that comes from outside the organization and has an impact on its performance. External information includes government policies, competition, economic status, and international market conditions. External information is typically required by top management cadres and is useful in developing long-term policy plans for organizations.

## Components of Information system

An information system is a collection of hardware, software, and telecommunication networks that people construct to collect, create, and distribute useful data, usually within an organization. It defines the information flow within the system. An information system's goal is to provide appropriate information to the user, gather data, process data, and communicate information to the system's user.



1. **Computer hardware:** Physical equipment is used for input, output, and processing. The hardware structure depends upon the type and size of the organization. It consists of an input and an output device, an operating system, a processor, and media devices. This also includes computer peripheral devices.
2. **Computer software:** The programs/ application program is used to control and coordinate the hardware components. It is used for analyzing and processing the data. These programs include a set of instructions used for processing information.
3. **Network communication:**  
The communication channels that connect the various system components and allow them to work together. Network communication refers to the exchange of information and data between two or more devices that are connected to a network. The most common example of network communication is the internet, where millions of devices are connected to a network and share data with one another.
4. **Data:** Information that the system stores and processes. It can include both structured (like a database) and unstructured data (such as a text document). Data communication is the process of transferring data from one place to another or between two locations. It allows electronic and digital data to move between two networks, no matter where the two are located geographically, what the data contains, or what format they are in. A common example of data communication is connecting your laptop to a Wi-Fi network. This action requires a wireless medium to send and receive data from remote servers.
5. **People / Human resource:** Those who use the system as well as those who support and maintain it. People are involved in information systems in just about every way you can think of: people imagine information systems, people develop information systems, people support information systems, and, perhaps most importantly, people use information system.
6. **Process:** The steps and processes that are followed to complete specific tasks such as data entry, information processing, and report generation. A process is a series of steps undertaken to achieve a desired outcome or goal. Information systems are becoming increasingly integrated with organizations' processes. This integration brings more productivity and better control to those processes. However, simply automating activities using technology is not enough.
7. **Policies and security measures:** The guidelines and measures that ensure the system's information's confidentiality, integrity, and availability.