

Unit 3

Introduction to Management Information System

Data:

- *Data is collection of raw facts typically about physical phenomena or business transactions.*
- Data can be in any form-numerical, textual, graphical, image, sound, video etc.
- For example of data would be the marks obtained by students in different subjects.

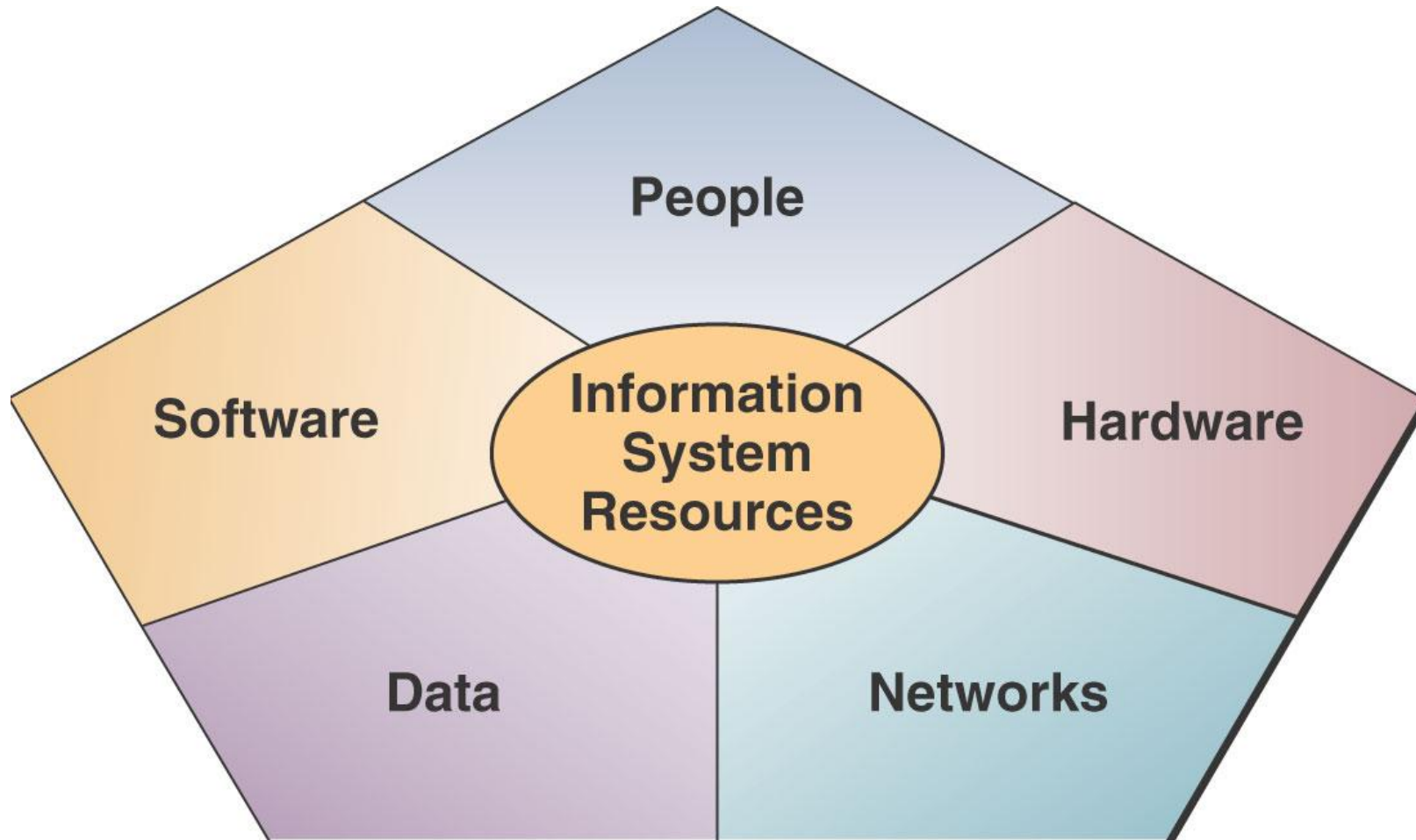
Information:

- *Information is defined as refined or processed data that has been transformed into meaningful and useful form for specific users.*
- For example, after processing the marks obtained by student it transformed into information, which is meaningful and from which we can decide which student stood first, second and so forth. Information comes from data and takes the form of table, graphs, diagrams etc.

Information System

- An information system is a set of interconnected components that collect, process, store, and disseminate information to support decision-making, coordination, control, analysis, and visualization in an organization.
- Information systems can be used in various contexts, including business, education, healthcare, government, and more.

Components/Resources of an IS



Components/Resources of an IS

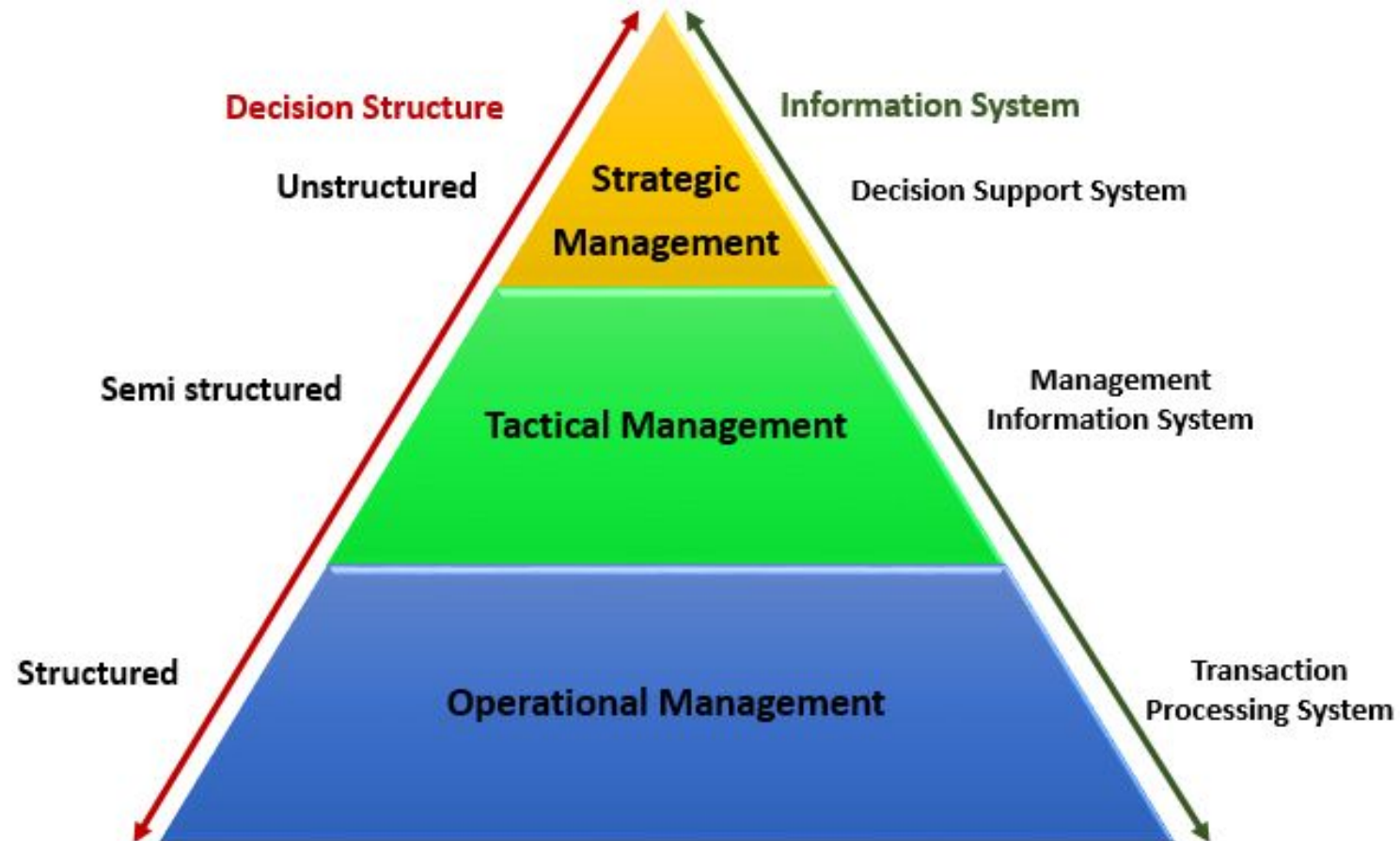
Key components of an information system include:

- **Hardware:** This includes the physical devices used to input, process, store, and output data. Examples include computers, servers, storage devices, and networking equipment.
- **Software:** These are the programs and applications that run on the hardware and enable users to perform specific tasks. This can include operating systems, databases, and application software tailored to the organization's needs.
- **Data:** Information systems rely on data as input, which is processed and transformed into meaningful information. Data can take various forms, including text, numbers, images, and multimedia.

Components/Resources of an IS

- **People:** People are an integral part of any information system. This includes users who input, process, and analyze data, as well as IT professionals who design, develop, implement, and maintain the system.
- **Networks:** Information systems often rely on networks to facilitate communication and data transfer between different components. Networks can be local (LAN) or global (WAN or the internet).

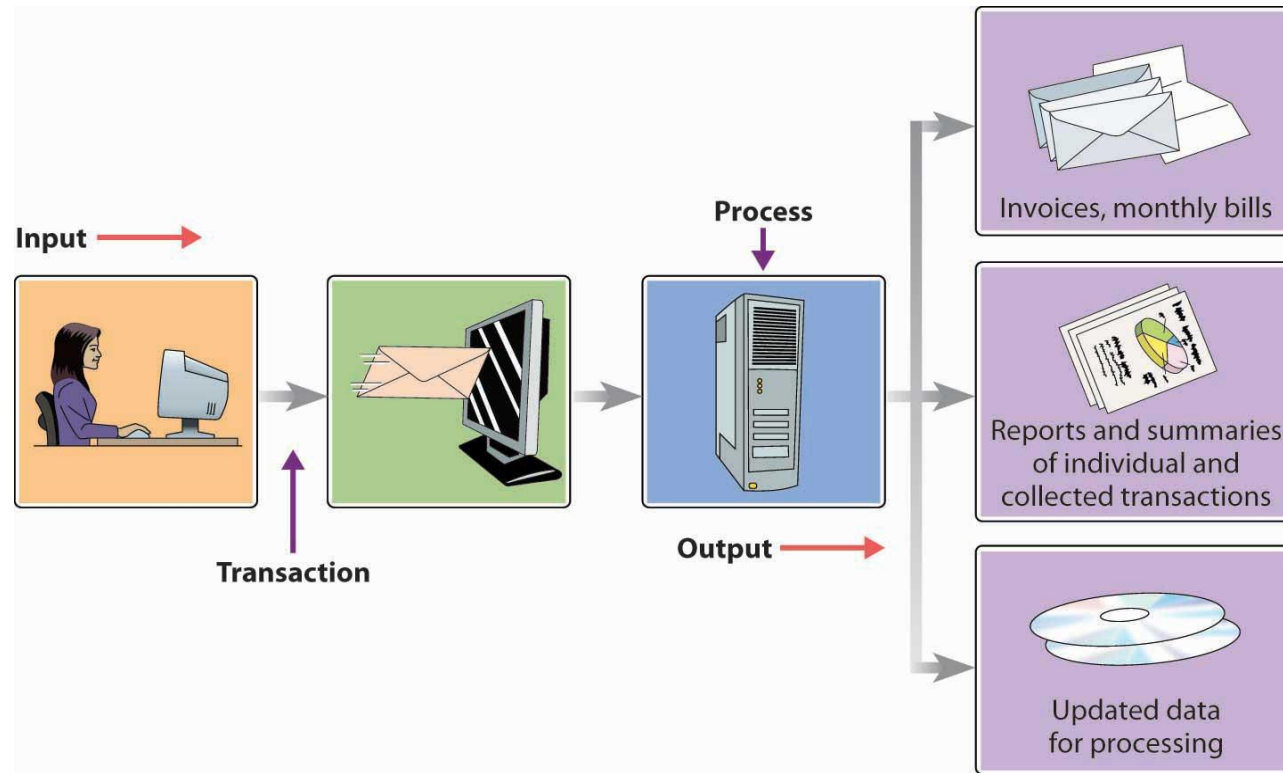
Types of Information System



Transaction Processing Systems (TPS):

- TPS are responsible for processing day-to-day transactions, such as sales orders, inventory management, ATM (Automated Teller Machines), Order processing systems, Airline seat reservation system and payroll processing.
- They ensure that routine operations are carried out efficiently and accurately.

Transaction Processing Systems (TPS):



Management Information Systems (MIS):

- The MIS itself is an information system that provides middle managers with summarized, structured reports and information to support their decision-making processes. These reports are typically generated from data collected by TPS.

Management Information Systems (MIS):

System Architecture: Management Information System

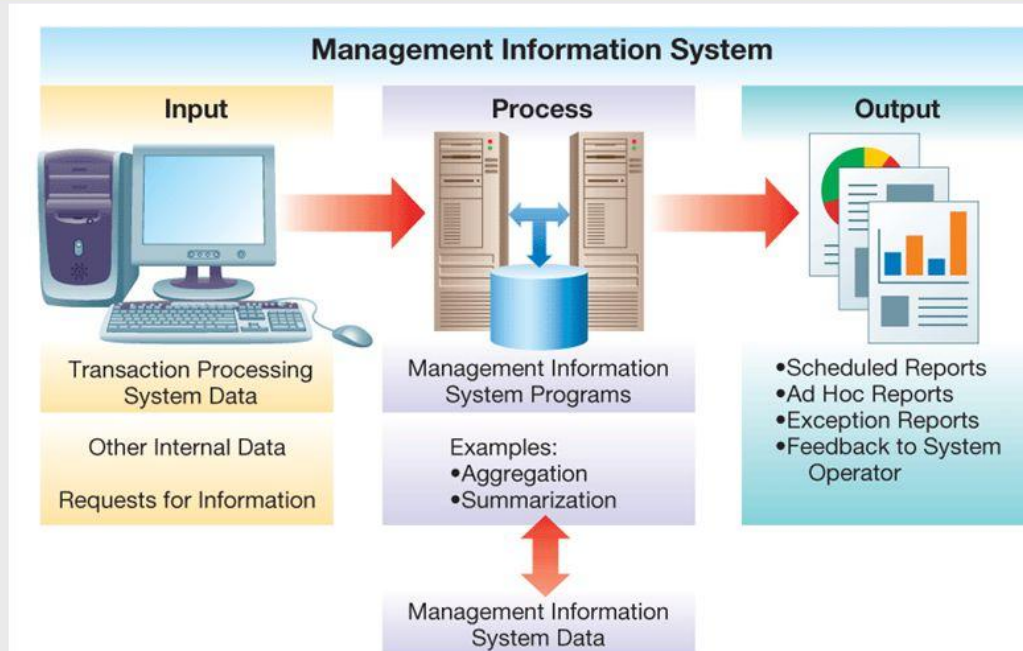


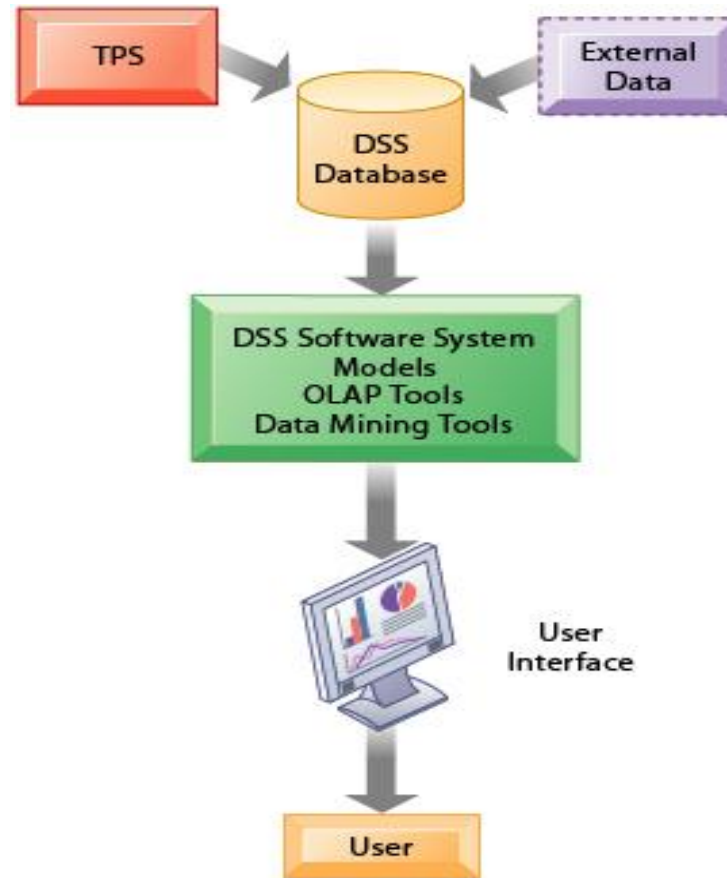
Figure 6.12 Architecture of a management information system using the basic systems model.

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Decision Support Systems (DSS):

- DSS assists managers in making non-routine decisions by providing access to interactive and ad-hoc query tools, data analysis capabilities, and models to simulate different scenarios.
- Imagine you are the manager of a retail clothing store, and you need to decide which products to order for the upcoming holiday season to maximize sales and profitability.

Decision Support Systems (DSS):



<https://www.qlik.com/us/products/qlik-sense>