



Lecture 1

Information System

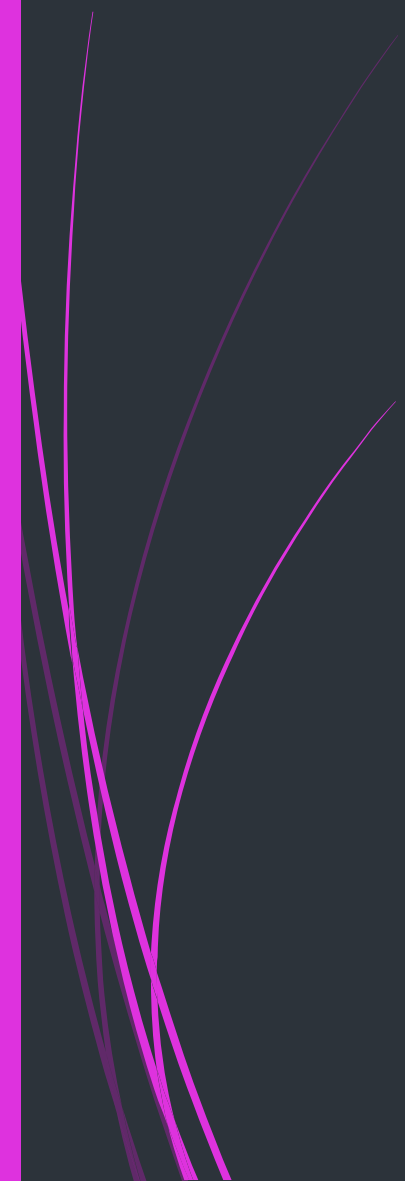
By

Habib Ullah Qamar

MSCS, MBA (HRM)



Data

- Raw facts
 - Types
 - Numbers
 - Text
 - Numbers + Text
 - Other types ?
- 



Introduction

- ▶ **Information- processed form of data used** for decision making. Information minimizes uncertainty
- ▶ Types?
- ▶ Same as data ?
- ▶ Differences ?
- ▶ Processing, sorted, organized, meaningful, Decision making, output



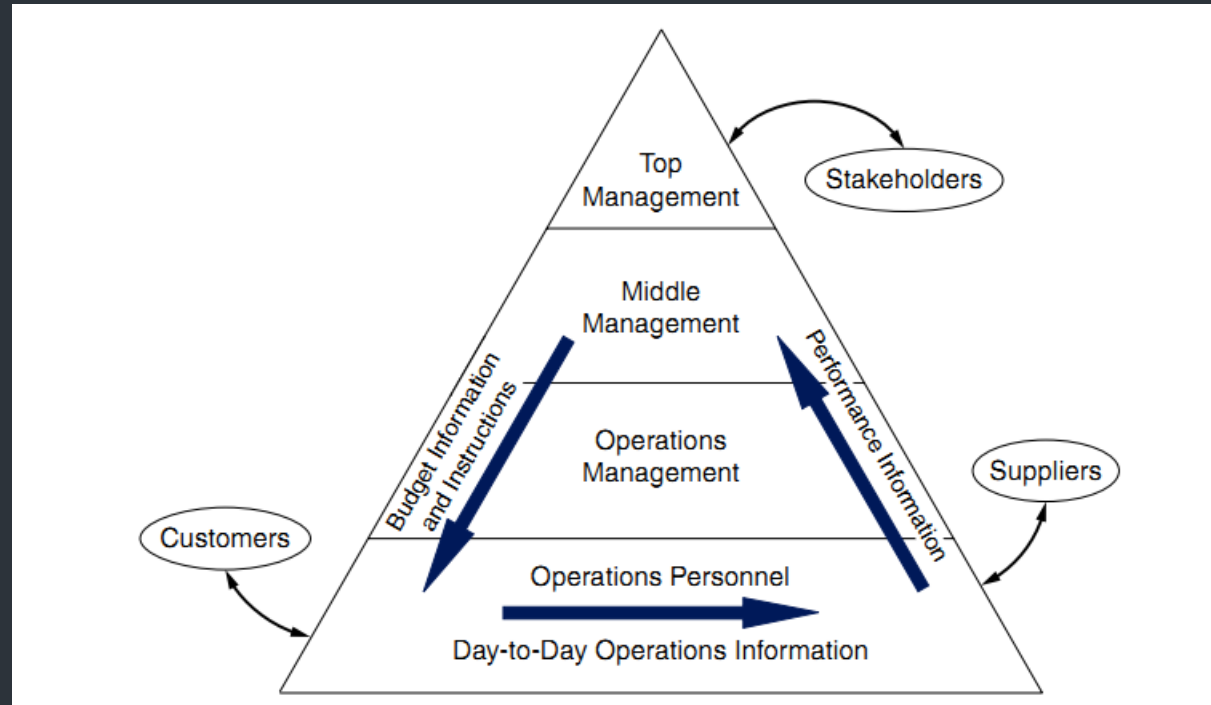
Introduction

- ▶ **System-** A System is a **set of two or more interrelated and dependent components** that interact to each other **to achieve a goal**.
- ▶ These components may be **referred as a subsystem** that performs a specific function important to and supportive part of the larger system.
- ▶ For example, A College has different subsystems like admission, examination, library, payroll etc.

The Information Environment

- ▶ IRM – Information resource management
- ▶ Information resource management (IRM) is a broad term in IT that refers to the management of records or information or data sets as a resource. This can relate to either business or government goals and objectives.
- ▶ Information is an also vital source for any organization.
- ▶ In Every business day, vast quantity of information flows from workers to decision makers to fulfill the internal informational needs.

internal and external information flows



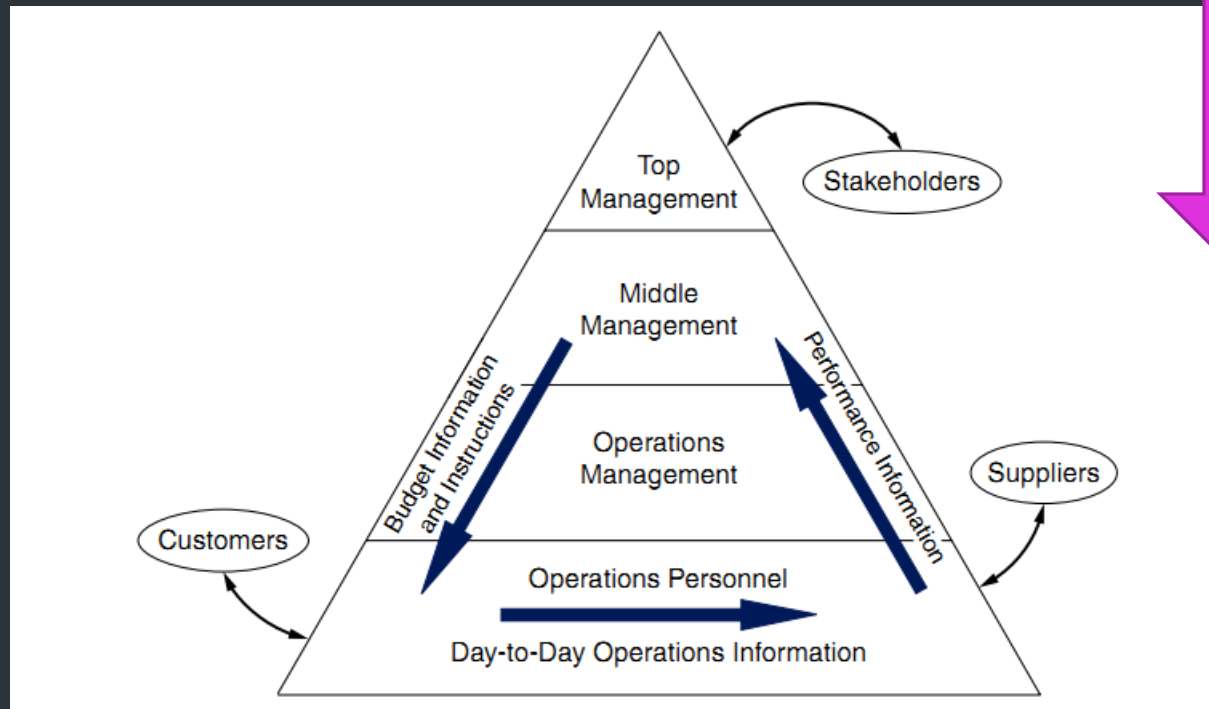
Levels of Activities

- ▶ Above the base level, we have three management levels that are **operations management, middle management, and top management.**
- ▶ Operations management controls all day-to-day operations.
- ▶ Middle management is responsible for short-term planning and coordination to accomplish organizational objectives.
- ▶ Top management is responsible for longer-term planning and setting organizational objectives.
- ▶ **WHAT ALL THEY NEED?**

Information

Direction of Information Flow

?





Horizontal Flow of information

- ▶ Information flows in two directions within the organization: horizontally and vertically. The horizontal flow supports operations-level tasks with highly detailed information about the many business transactions affecting the firm. It flows information **between co workers or between the employees of same department.**



Vertical flow of information

- ▶ The vertical flow of information flows across the **four levels in both directions upward and downward**. It distributes summarized information about operations in the form of **budget and instructions downward** while **performance information upward** to evaluate and monitor the overall success of an organization at each level.



Internal and External Flow of information

- ▶ Like horizontal and vertical flow information flows internally between all levels of workers and managers and outside the organization. In figure we can see the two main external **users Stakeholders?** and **Trading partners**. Trading partners further can be divided in to **customers who require sales and billing information** and **Suppliers** that require inventory information.



Internal and External Flow of information

- ▶ **Stakeholders are all those entities/offices/organizations/personals outside (or inside) the organization with a direct or indirect interest in the firm.** Stockholders, financial institutions, and government agencies are examples of external stakeholders. Information exchanges with these groups include financial statements, tax returns, and stock transaction information.

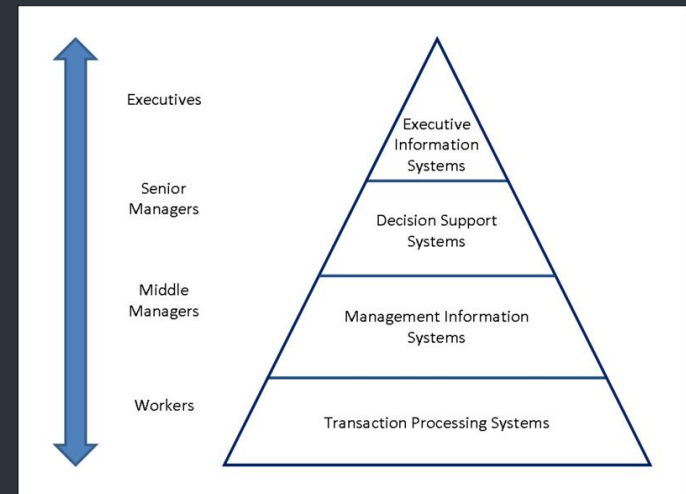


Information System

- ▶ A combination of **hardware, software, infrastructure and trained personnel** organized to **facilitate planning, control, coordination, and decision making** in an organization.

Types of Information System

- ▶ transaction processing systems
- ▶ management information systems,
- ▶ decision support systems,
- ▶ executive information systems





Components of an Information System

- ▶ **The people** who operates the system and perform different functions
- ▶ **The procedures**, both manual and automated/computerized, used for collecting, processing and storing data about the organization.
- ▶ **The data** about the organization's business processes.
- ▶ **The software** used to process the organization data.
- ▶ **The information technology infrastructure**, including computers, peripherals devices and Information communication technology (ICT) devices.