BA4106 Information Management

Master of Business Administration

Semester - I

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Information Systems

- An information system is a combination of software, hardware, and telecommunication networks to collect useful data, especially in an organization.
- Elements of Information System (IS) is:
  1. Procedure
  2. Resources
  3. People
- Information System has a group of procedures, when executed, it provides the information for decision making and control of organization.

Information Systems …Cont'd…

According to James A O Brien,

" An information System (IS) can be any organized combination of people, hardware, Software, Communication Networks and data resources that store and retrieves, transform and disseminate information in an organization".

According to Silver,

" Information systems are implemented within an organization for the purpose of improving the effectiveness and efficiency of that organization.

- Capabilities of the information system
- Characteristics of the organization
- Its work systems
- Its people and its development and implementation methodologies

together determines the extent to which that purpose is achieved.

Two Categories of Information System

Manual Information System **Computer Based Information System**

Manual Information System: - All the data is done manually. All the information is written and stored in a different file.

- Some times called as non-computerized system.
- Not efficient- consumes lot of time to find and modify

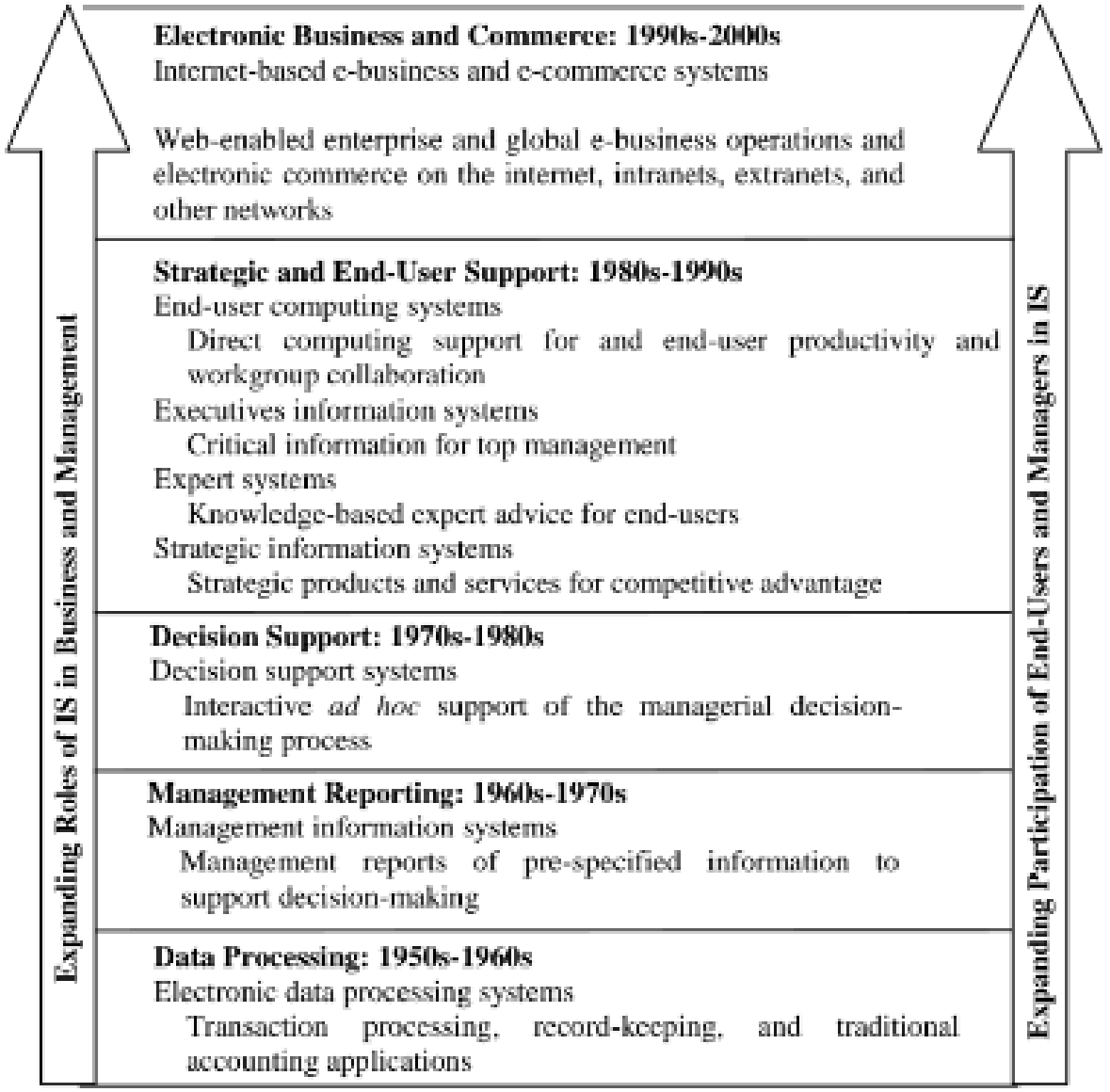
Computer Based Information System: - Relies on the computer

- analysts must be familiar with computer technology
- CBIS uses software, hardware, databases, telecommunications, people, procedure

Difference between Computer-Based and Manual-Based Information System

Manual-Based Information System	Computer-Based Information System
Information kept as files in paper form	Data stored in computer programs/database/word documents/excel,…
It is less popular	It is more popular
It is cheaper	It is costly
It has more risk	It has less risk
It is less efficient	It is more efficient
It does not have backup of data	It can backup important information

Evolution of Information System



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First Semester

BA 4106 – INFORMATION MANAGEMENT

(Regulations – 2021)

PART B — (5 × 13 = 65 marks)

11. (a) Demonstrate with examples about the types of Information system based on functions.

Or

(b) Illustrate the evolution of IS with suitable case.

Evolution of Information System … Cont'd …

1950 – 1960	1960 – 1970	1970 – 1980
Data Processing	**Management Reporting**	**Decision Support**
Collects, stores, modifies and retrieve day-to-day transactions of an organization	Pre-specified reports and displays to support business decision-making	Interactive ad-hoc support for the decision-making process
Helps Workers	Helps Middle Managers	Helps senior managers

Evolution of Information System … Cont'd …

1980 – 1990	1990 – 2000	2000 – Present
Executive Support	**Knowledge Management**	**E-Business**
Provide both internal and external information relevant to the strategic goals of the organization	Supports the creation, organization and dissemination of business knowledge	Greater connectivity, higher level of integration across applications
Helps Executives	Help available enterprise wide	Helps global e-business

Evolution of Information System …Cont'd …

Evolution of Information System

1950 – 1960: Electronic Data Processing, Transaction Processing System

1960 to 1970: Management Information Systems

1970 to 1980: Decision Support Systems

1980 to 1990: Executive Information Systems

1990 to 2000: Knowledge Management Systems

2000 – present: E-Business

Evolution of Information Technology

1940s – 1950s: UNIVAC Computer

1960s- 1970s: Mainframe Computer

1980s – 1990s: Personal Computer

2000s – present: Mobile

Evolution of Information System …Cont'd …

Early 1960

- Until 1960s – transaction processing, record keeping, accounting and **other electronic data processing (EDP) applications.**
- Then another concept was added, **Management Information System** (MIS).
- MIS delivers information in the form of displays and pre-specified reports to support **business decision-making.**

Evolution of Information System …Cont'd …

Year 1970

- Pre-specified reports – Not adequate for decision making need o the management.
- Concept of **Decision Support System** (DSS) was born.
- Provide managerial end-users with ***ad hoc* and interactive support** for decision making.
- DSS serve the **planning, management and operations** level of an organization usually senior management.

Evolution of Information System …Cont'd …

Year 1980

- Development of microcomputer processing power
  Application software package
  Telecommunication Network

  } Birth of **end-user computing**

- End User can use their own computing resources to support their job.
- Non-programmers can create working applications.

Evolution of Information System …Cont'd …

Year 1980 ….

- Most Corporate executives did not use reports of MIS and DSS.
- So the concept of **Executive Information System (ESS)** was developed.
- Top executives – Easy to get critical information
- ESS - Tailored to the format they preferred.
- Also known as an **Executive Support System** (ESS)

Evolution of Information System …Cont'd …

Year 1980 ….

- Development of **Artificial Intelligence (AI) Techniques** to business information system
- Virtual Reality Applications
- Advanced Robotics
- Natural Language Processing
- **Expert Systems (ES)** and other Knowledge based system

Evolution of Information System …Cont'd …

Starting Year 1990

- **Strategic Information System (SIS)** is appeared

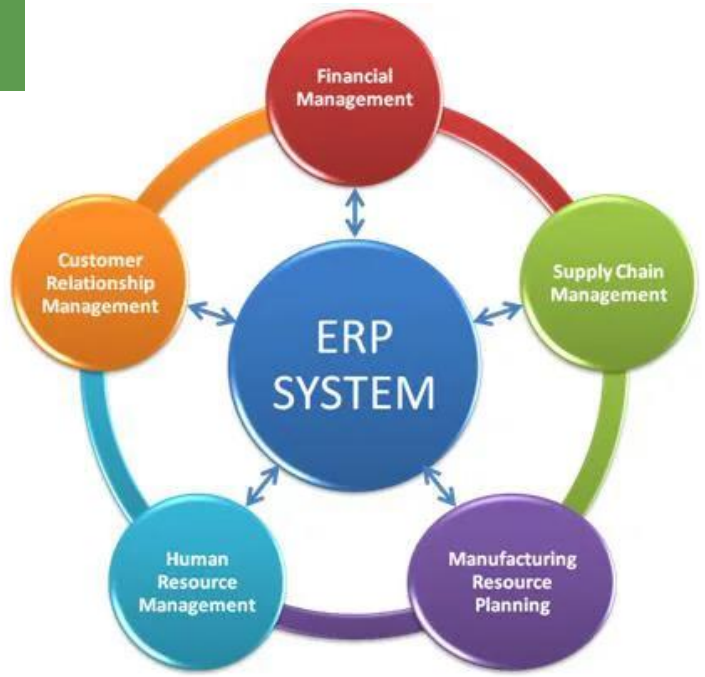
- Information technology becomes integral component of business processes, products and services
- The information system to support or change **enterprise's strategy**

- These information systems focus on **long-term planning** and **important decision making** that guides the overall direction of the business.

Evolution of Information System …Cont'd …

Mid -Year 1990

- Revolutionary Emergence of **Enterprise Resource Planning (ERP)** System**.**
- It includes all aspects of a firm ; **Planning, Manufacturing**, **Sales, HR,** Customer relations, Inventory control, financial management, order tracking, Marketing
- ERP software has the ability to **collect and compare** metrics across departments and provide a number of different **reports** based on roles or specific **user preferences**



Evolution of Information System …Cont'd …

After Year 1990

- Rapid growth of the internet, intranet, extranets and other interconnected global networks
- **Internet- based** and **web-enable**d enterprise and global **electronic-business** and commerce system.
- **Greater connectivity**, higher level of integration across applications

- **Big Data**, **Mobile, Cloud Computing** , **Tablets, Smart phones** and **social media** and rapid growth of **wireless network technology**.