Types of Information system

The information systems can be categorized into four types. These are:

1. Executive Information Systems

It is a strategic-level information system which is found at the top of the Pyramid. Its primary goal is to provide information gathered from both internal and external sources to the senior executives and management to analyse the environment in which the organization operates, and to plan appropriate courses of action for identifying the long-term trends. It can also be used to monitor organization performance as well as to identify opportunities and problems. EIS is designed in such a way that it can be operated directly by executives without the need for intermediaries.

The role of Executive Information Systems are:

- **It is concerned for ease of use.**
- **It supports unstructured decisions.**
- **It concerned with predicting the future.**
- **It is highly flexible.**
- **It is effective.**
- **It uses both internal and external data sources.**
- **It is used only at the higher levels of authority.**

2. Decision Support Systems

A DSS or Decision Support System is a computer application program used by senior managers to analyse the business data and presents it in that form in which the users can make business decisions more easily. These systems are usually interactive and can be used to solve ill-structured problems in an organization. It helps in exchanging the information within the organization.

The role of Decision Support System are:

- **It supports ill-structured or semi-structured decisions.**
- **It is used by senior managerial levels.**
- **It has analytical and/or modeling capacity.**
- **It is concerned with predicting the future.**

3. Management Information Systems

MIS or Management Information System is the use of information technology, people, and business processes to record, store, manipulate, and process data to produce meaningful information. This information helps decision makers to make day to day decisions correctly and accurately. It is used to make a tactical decision (middle-term decision) to ensure the smooth running of an organization. It also helps to evaluate the organization's performance by comparing previous outputs with current output.

The role of Management Information Systems are:

- **It is based on internal information flows.**
- **It supports relatively structured decisions.**
- **It is inflexible and has a little analytical capacity.**
- **It is used by lower and middle managerial levels.**
- **It deals with the past and presents rather than the future.**

4. Transaction Processing Systems

TPS or transaction processing system is a type of information processing system for business transactions that involve the collection, storage, modification and retrieval of all data transaction of an enterprise. The characteristics of a Transaction Processing System include reliability, performance, and consistency. A TPS is also known as real-time processing.

The role of Transaction Processing System are:

- **It produces the information for other systems.**
- **It is used by operational personnel plus supervisory levels.**
- **It is efficiency oriented.**

Development of Information System

An Information System Development is a set of activities, methods, best practices, deliverables and automated tools that every organization use to develop and continuously improve information systems and its related software.

There are four steps which can be used to develop an information system. These are:

1. Define and understand the problems

The purpose of the first step is to find the scope of the problem and determine solutions. This phase also includes and considered resources, time, cost, and other items for the requirements of the information system.

2. Develop an alternative solution

The purpose of this step is to find a path to the solution determined by system analysis. In this phase some solution requires modification in the existing system, some solution does not require an information system, and some solution requires a new system.

3. Evaluate and choose the best solution

The purpose of the third step is to evaluate the feasibility issues related to financial, technical, and organizational. It measures the time and cost to design an information system. It evaluates the business value of a system and finds the best solution for developing an information system.

4. Implement the solution

The purpose of the last step is to create the detailed design specification for an information system. This phase provides complete implementations for-

- **Hardware selection and acquisition**
- **Software development and programming**
- **Testing such as Unit, System, Acceptance testing**
- **Training and documentation (Online practice, step-by-step instruction)**
- **Conversion, i.e., Changing from Old to New System**
- **Production & maintenance (Review, Objectives, Modification)**