**(Decision Support System)**

* **Condition-**Condition is an action that must be fulfilled before another preposition is fulfilled. It is known as Condition.
* **Decision**- Decision is a choice made between alternative courses of action in a situation of uncertainty.
* **Type of Decision**-There are two types of decision as-

**a. Programmed Decision/Structured Decision**- Programmed decisions are routine and repetitive, and the organization typically develops specific ways to handle them.

**b. Nonprogrammed Decision/Unstructured Decision-** Non programmed decisions are typically one shot decisions that are usually less structured than programmed decision.

* **Phases of Decision**- There are four phases of decision as-

**a. Preparation**:-The actual decision including identifying the problem, determining goals, gathering information and analyzing data.

**b. Decision**:-The specific process of creating a determination.

**c. Implementation:-**The actions taken as a direct result of the decision.

**d**. **Consequences**:-The effects caused by making the decision. Outcomes are milestone consequences often used to evaluate the effectiveness of a decision.

* **Decision Making**-Decision making is the process of identifying and choosing alternatives based on the values. Decision making can help you make better decisions. Decision-making is a some ideas about how to do it.
* **Phases of decision making**- There are five phases of decision making model as

**a. Intelligence: ­** Searching for conditions in the environment that call for decisions.

**b**. **Design**­:- Inventing, developing, and analyzing possible courses of action.

**c**. **Choice:-**­ Selecting a course of action from those available.

**d. Implementation:-**­ Implementing the selected course of action.

**e**. **Monitoring :-**­ Checking the consequences of the decision made after implementation

* **Decision Support System**- A decision support system (DSS) is a computer based program application that analyzes business data(people,things,rule etc) and decision making activities.(financial,operational,servuce) .  Users can make business decisions more easily.
* **Component of DSS**:- DSS has for components as:-

**a. Inputs:** Factors, numbers, and characteristics to analyze.

**b. User knowledge and expertise:** Inputs requiring manual analysis by the user.

**c. Outputs:** Transformed data from which DSS decisions are generated.

**d. Decisions:** Results generated by the DSS based on user criteria.

* **Phases of DSS**:- Decision Support System consists of four phases:

**a. Intelligence** – Searching for conditions that call for decision.

**b. Design** – Developing and analyzing possible alternative actions of solution.

**c. Choice** – Selecting a course of action among those.

**d. Implementation** – Adopting the selected course of action in decision situation.

* **Characteristic of DSS**- i. Support for decision makers in semi structured and unstructured problems.

ii. Support managers at all levels.

iii. Support individuals and groups.

iv. Support for sequential decisions.

v. Support intelligence, design, choice, and implementation.

vi. Support variety of decision processes and styles.

* **Difference between MIS and DSS**:-The difference between MIS and DSS is given below as:-

|  |  |
| --- | --- |
| MIS | DSS |
| i) MIS is a management information system | i) DSS is a decision support system. |
| ii) MIS is a Information processing. | ii) DSS is an Analysis, decision Support. |
| iii) MIS provides information on business performance that helps managers to control the day-to-day business activities. | iii) DSS provides information and various decision support techniques that help managers to analyze specific problems |
| iv) MIS deals with mostly structured problems. | iv) DSS provides information that helps in analyzing and finding solutions to semi-structured and unstructured problems. |
| v) MIS produce reports based on routine flow of data. | v) DSS may produce the reports which helps managers to analyze and control the cause and effect . |

* **Type of DSS**- There are five types of DSS as:-

**a.** **Information Analysis System:** In this system data is analyzed and the information report is generated. For example, sales analysis, market analysis etc.

**b.Status Inquiry System:** It helps in taking operational, management level, or middle level management decisions. Example- Machines to operators .

**c**. **Data Analysis System:** It needs comparative analysis and makes use of formula or an algorithm. For example cash flow analysis, Inventory analysis etc.

**d.** **Accounting System:** It keeps track of accounting and finance related information. For example, accounts receivables, accounts payables etc.

**e**. **Model Based System:** Model based system is a decision-making infrequently and creates general guidelines for operation or management.Example- OS performance analysis, Network protection analysis etc.

* **Level of DSS**- There are three level of DSS as-

**a. Specific DSS:**-The system that actually accomplices the work might be called the specific DSS.

**b**. **DSS generator:-**The second technology level might be called a DSS generator. This is a package of related hardware and software which provide a set of capabilities to quickly and easily build a specific DSS. An Example of a DSS generator is the Executive Information System (EIS), Excel etc.

c. **DSS Tools:-**The third and most fundamental level of technology applied to the development of a DSS might be called DSS Tools. These are hardware or software elements which facilitate the development of a specific DSS or a DSS generator.