

INTRODUCTION TO MIS SUPPORT

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WHAT IS MIS SUPPORT

Management Information System (MIS) is a computer-based system that collects, processes, stores, and distributes information to support managers in decision making and organizational operations.

MIS converts **raw data into meaningful information** which helps managers make effective decisions.

Definition

Management Information System is a system that **collects data from different sources, processes it, and provides useful information to managers for planning, controlling, and decision making.**

Objectives of MIS

The main objectives of MIS are:

1. To provide **accurate and timely information** to managers.
2. To support **effective decision making**.
3. To improve **organizational efficiency and productiv**

COMPONENTS OF MIS

1. **Hardware** – Computers, servers, networking devices
2. **Software** – Applications and operating systems used to process data
3. **Data** – Raw facts and figures collected from business activities
4. **Procedures** – Rules and instructions for processing data
5. **People** – Managers, employees, and IT staff who use the system

DECISION MAKING

Decision making is one of the most important functions of management.

Decision making refers to the process of selecting the best course of action from various available alternatives to solve a problem.

Managers take different types of decisions in an organization such as:

- Selecting suppliers
- Planning production
- Setting prices
- Hiring employees
- Launching new products

MIS provides **relevant information** that helps managers make better decisions.

TYPES OF DECISION MAKING

Decision making can be classified into two main types:

1. Programmed Decision Making
2. Non-Programmed Decision Making

PROGRAMMED DECISION MAKING

Programmed decisions are **routine and repetitive decisions** for which **rules, policies, and procedures are already defined**.

These decisions are structured and easy to make because the problem occurs frequently

Characteristics of Programmed Decisions

1. **Routine in nature**
2. **Repetitive problems**
3. **Structured decisions**
4. **Based on predefined rules**
5. **Usually taken by lower or middle level management**

EXAMPLES OF PROGRAMMED DECISIONS

Examples include:

- **Employee salary calculation**
- **Attendance management**
- **Inventory reorder decisions**
- **Monthly report generation**
- **Loan approval based on fixed criteria**

MIS SUPPORT FOR PROGRAMMED DECISIONS

MIS helps programmed decisions by **automating routine processes**.

MIS support includes:

1. **Automatic data processing**
2. **Routine report generation**
3. **Fast decision making**
4. **Reduction of human errors**

Example:

In a retail store, MIS monitors inventory levels and automatically alerts managers when stock needs to be replenished.

NON-PROGRAMMED DECISION MAKING

Non-programmed decisions are **new, unique, and complex decisions** that do not have predefined rules or procedures.

These decisions require **managerial judgment, creativity, and analysis**.

Characteristics of Non-Programmed Decisions

1. **Non-routine decisions**
2. **Complex and unstructured problems**
3. **Require creative thinking**
4. **No predefined procedures**
5. **Usually taken by top level management**

TRANSMISSION CONTROL PROTOCOL (TCP)

TCP is a transport-layer protocol responsible for reliable data transmission.

Functions of TCP:

- Ensures data accuracy
- Controls data flow
- Detects errors
- Retransmits lost data
- Maintains connection

EXAMPLES OF NON-PROGRAMMED DECISIONS

Examples include:

- **Launching a new product**
- **Expanding business to a new country**
- **Entering a new market**
- **Merging with another company**
- **Long-term strategic planning**

Example:

A company deciding to enter the **international market** must analyze many factors such as demand, competition, and cost.

MIS Support for Non-Programmed Decisions

MIS supports non-programmed decisions by providing **analytical and strategic information**.

MIS helps managers through:

1. Market analysis reports
2. Forecasting tools
3. Trend analysis
4. Financial analysis
5. Comparative reports

Example:

Before launching a new product, managers use MIS to analyze:

MODELS OF DECISION MAKING

Decision making models explain **how managers identify problems and choose solutions.**

One of the most important models was developed by **Herbert A. Simon.**

This model is known as the **Herbert Simon Decision Making Model.**

Herbert Simon Decision Making Model

This model divides the decision making process into **four phases:**

1. **Intelligence Phase**
2. **Design Phase**
3. **Choice Phase**
4. **Implementation Phase**

INTELLIGENCE PHASE

In this phase, the manager **identifies the problem and gathers information.**

Activities

- **Identifying the problem**
- **Collecting relevant data**
- **Analyzing the current situation**

Example:

A company observes that **sales are decreasing.**

MIS helps by providing:

- **Sales reports**
- **Customer data**
- **Market analysis**

DESIGN PHASE

In this phase, possible **solutions and alternatives are developed.**

Activities

- **Generating alternative solutions**
- **Analyzing possible strategies**
- **Evaluating different options**

Example:

To increase sales, possible solutions may include:

- **Reducing product price**
- **Increasing advertising**
- **Introducing a new product**

CHOICE PHASE

In this phase, the manager **selects the best alternative** among available options.

Activities

- **Comparing alternatives**
- **Evaluating risks and benefits**
- **Selecting the best solution**

Example:

The manager may decide to **increase marketing campaigns** to improve sales.

MIS helps through:

- **Comparative reports**
- **Cost-benefit analysis**
- **Performance predictions**

IMPLEMENTATION PHASE

In this phase, the selected decision is **put into action**.

Activities

- **Executing the decision**
- **Implementing the action plan**
- **Monitoring performance**

Example:

The company launches a **new advertising campaign**.

MIS helps by providing:

- **Performance monitoring**
- **Sales tracking**
- **Feedback reports**