MIS
Unit 2

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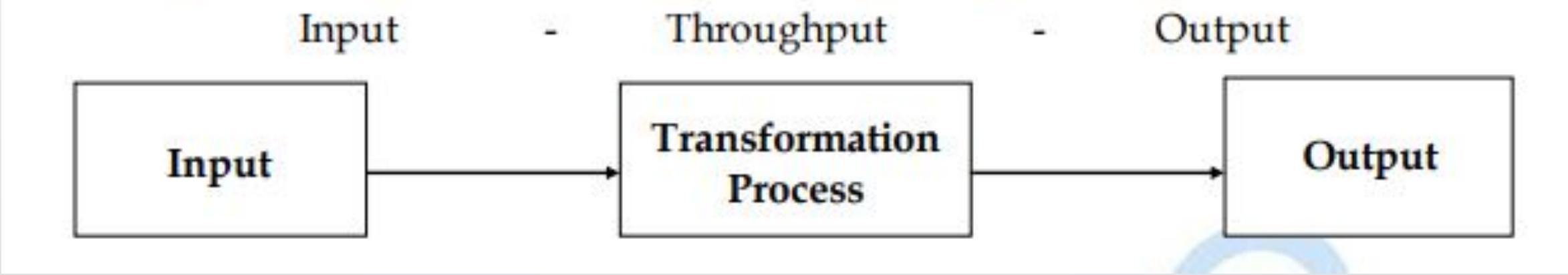
What is MIS?

- **Management** : Management is art of getting things done through and with the people in formally organized groups. The basic functions performed by a manager in an organization are: Planning, controlling, staffing, organizing, and directing.
- **Information** : Information is considered as valuable component of an organization. Information is data that is processed and is presented in a form which assists decision maker.
- **System** : A system is defined as a set of elements which are joined together to achieve a common objective. The elements are interrelated and interdependent. Thus every system is said to be composed of subsystems. A system has one or multiple inputs, these inputs are processed through a transformation process to convert these input(s) to output.

- These subsystems are interrelated through a process of



Objectives of MIS :

- **Data Capturing** : MIS capture data from various internal and external sources of organization. Data capturing may be manual or through computer terminals.
- **Processing of Data** : The captured data is processed to convert into required information. Processing of data is done by such activities as calculating, sorting, classifying, and summarizing.

- **Storage of Information** : MIS stores the processed or unprocessed data for future use. If any information is not immediately required, it is saved as an organization record, for later use.
- **Retrieval of Information** : MIS retrieves information from its stores as and when required by various users.
- **Dissemination of Information** : Information, which is a finished product of MIS, is disseminated to the users in the organization. It is periodic or online through computer terminal.

Characteristics of MIS :

1. Systems Approach
2. Management Oriented
3. Long Term Planning
4. Central database
5. Common Data Flow
6. Sub System Concept
7. Need Based
8. Exception Based
9. Future Oriented
10. Integrated

- **Systems Approach** : Systems approach means taking a comprehensive view or a complete look at the interlocking sub-systems that operate within an organization.
- **Management Oriented** : Management oriented characteristic of MIS implies that the management actively directs the system development efforts.
- For planning of MIS, top-down approach should be followed.
- Top down approach suggests that the system development starts from the determination of management‘s needs and overall business objective.

- **Long Term Planning** : MIS is developed over relatively long periods. A heavy element of planning should be involved.
- **Central database** : In the MIS there should be common data base for whole system
- **Common Data Flow** : Common data flow includes avoiding duplication, combining similar functions and simplifying operations wherever possible.

- **Sub System Concept** : The MIS should be viewed as a single entity, but it must be broken down into digestible sub-systems which are more meaningful.
- **Integrated** : Integration is significant because of its ability to produce more meaningful information. Integration means taking a comprehensive view or looking at the complete picture of the interlocking subsystems that operate within the company.

- **Need Based** : MIS design should be as per the information needs of managers at different levels.
- **Exception Based :** MIS should be developed on the exception based also, which means that in an abnormal situation, there should be immediate reporting about the exceptional situation to the decision –makers at the required level.
- **Future Oriented** : MIS should not merely provide past of historical information; rather it should provide information, on the basis of future projections on the actions to be initiated.

Development Process of MIS

- The following are the factors which are responsible for development of MIS :
  1. Internal
  2. External
  3. Other

- Internal Factors : Internal factors internal of the firm that may affect the development of MIS can be grouped into three categories:

i) **Past Experience** : The organizations past experience about the technology in terms of exposure and organizational learning ultimately affects its future in developing technology.

ii) **Organizational Characteristics** : An organization's characteristic like size, influence the adoption of MIS application in organization.

- Ready to use software and less expensive equipment of MIS application are more attractive to smaller firms.

iii) **Organizational Pursued strategy** : Internal factors deal with the organizations pursued strategy on both orientation and technology policy.

- An organization‘s strategy reflects its action with market and technology, which ultimately modify its experience and consequently its overall characteristics and capabilities.

- External Factors : External Factors are conditions that exist in organization's external environment. The factors can be found at the industry level or in national policies.

(a) Industry level : At the industry level, we are looking at characteristics :

- technology suppliers
- the innovativeness of the industry
- the requirements imposed by major customers
- external markets
- overall levels of competition in the industry

(b) National Policies : For the external factors the national policies also affect the organization that indirectly affects the subsystems of the organization.

Other Factors :

- **Customer Satisfaction** : Development of MIS is affected by customer satisfaction. Customer of the services should be satisfied by the presented system.
- **Effective** : Development should be effective in terms of organizational benefit & user satisfaction.
- **Efficient** : Development should use all the resources, organization values efficiently.

Decision Making System

- The word “decision” is derived from the Latin word “decido” which means
- A decision is

  A Settlement

  A fixed intuition to bringing to a conclusive result

  A judgment

  A resolution

“A decision, therefore is A Settlement A fixed intuition to bringing to a conclusive result A judgment A resolution”.

Programmed and Non-programmed Decisions

- **Programmed decisions** are basically automated processes, general routine work, where −
  - These decisions have been taken several times.
  - These decisions follow some guidelines or rules.
  - For example, selecting a reorder level for inventories, is a programmed decision.

Programmed and Non-programmed Decisions Conti.

- **Non-programmed decisions** occur in unusual and non-addressed situations, so –
  - It would be a new decision.
  - There will not be any rules to follow.
  - These decisions are made based on the available information.
  - These decisions are based on the manager's discretion, instinct, perception and judgment.
- For example, investing in a new technology is a non-programmed decision.
- Decision support systems generally involve non-programmed decisions.
- Therefore, there will be no exact report, content, or format for these systems. Reports are generated on the fly.

Business Information System

- Business information systems are **sets of inter-related procedures** using **IT infrastructure** in a **business enterprise** to **generate and disseminate** desired **information**.

- The business information system gets data and other resources of IT infrastructure as input from the environment and process them to satisfy the information needs of different entities associated with the business enterprise.

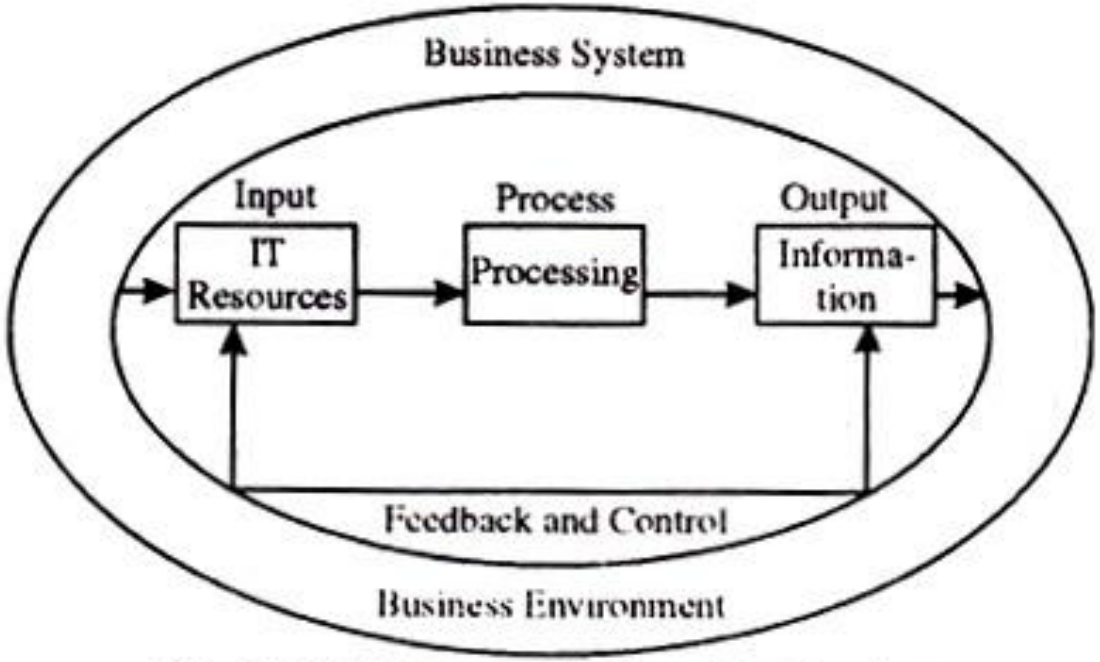
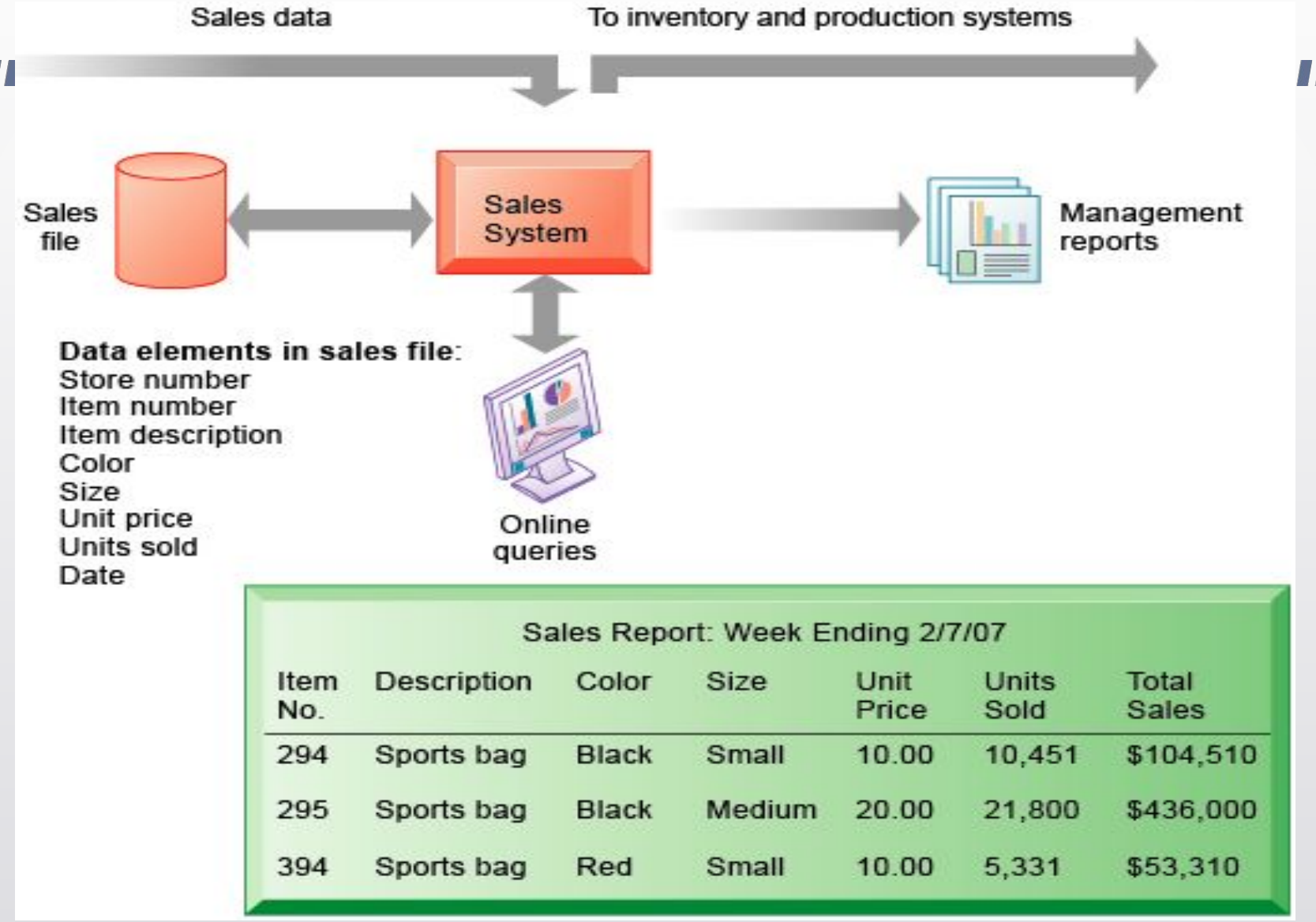


Fig. 13.7 Management Information System.



Sales Report: Week Ending 2/7/07

Item No.	Description	Color	Size	Unit Price	Units Sold	Total Sales
294	Sports bag	Black	Small	10.00	10,451	$104,510
295	Sports bag	Black	Medium	20.00	21,800	$436,000
394	Sports bag	Red	Small	10.00	5,331	$53,310

INFORMATION

Add a product line

Change a product price

Product Database

Change advertising

Increase radio

Advertising Database

Increase customer credit limit

Change customer salary level

Customer Demographic Database

ONLINE TRANSACTION PROCESSING

Business Intelligence

Data Warehouse

Change in revenue due to new product line and price

Increase in customers due to radio budget increase

Can customer profile changes support a high price product?

ONLINE ANALYTICAL PROCESSING

Characterics of Business Information System:

1 Dynamic/Flexible

- The business information systems are subject to the dynamics of business environment and need to be flexible enough to absorb the inevitable changes in the information needs of business.

2 Proactive/Adaptive

- Business information systems need to be proactive. They should anticipate changes in information needs of users and accordingly adapt themselves to suit their needs

3. Generate information for DSS

The purpose of business information system is to cater to the information needs for decision making in business.

4. Depends of Resource availability

The business information systems have to be designed keeping in view the availability of financial and human resources to the business enterprise.

5. Cost Effectiveness

The cost effectiveness is a matter of prime concern in the development and maintenance of business information systems.

The Five Major Flows in BIS

There are Five major flows in any supply chain :

- Product flow
- Information flow
- Financial flow
- Value flow
- Risk flow

THE PRODUCT FLOW :

In a typical industry situation, there will a **supplier, manufacturer, distributor, wholesaler, retailer** and **consumer (internal / external)**.

Product Flow includes movement of goods from supplier to consumer (internal as well as external), as well as dealing with customer service needs such as input materials or consumables or services like housekeeping.

Product flow also involves returns / rejections (Reverse Flow).

THE INFORMATION FLOW :

Supply chain management involves a great deal of

diverse information–bills of materials,

product data,

descriptions and pricing,

inventory levels,

customer and order information,

delivery scheduling,

supplier and distributor information, delivery status,

It can require a lot of communication and coordination with suppliers, transportation vendors, subcontractors and other parties.

THE INFORMATION FLOW :

Information flows in the supply chain are bidirectional. Faster and better information flow enhances Supply Chain effectiveness and Information Technology (IT) greatly transformed the performance.