

### 13. MANAGEMENT INFORMATION SYSTEM

A management information system (MIS) is an organized collection of people, procedures, software, databases, and devices used to provide routine information to managers and decision makers. The focus of an MIS is primarily on operational efficiency. Marketing, production, finance, and other functional areas are supported by MIS and linked through a common database. MIS typically provide standard reports generated with data and information from the transaction processing system (Figure 13.1)

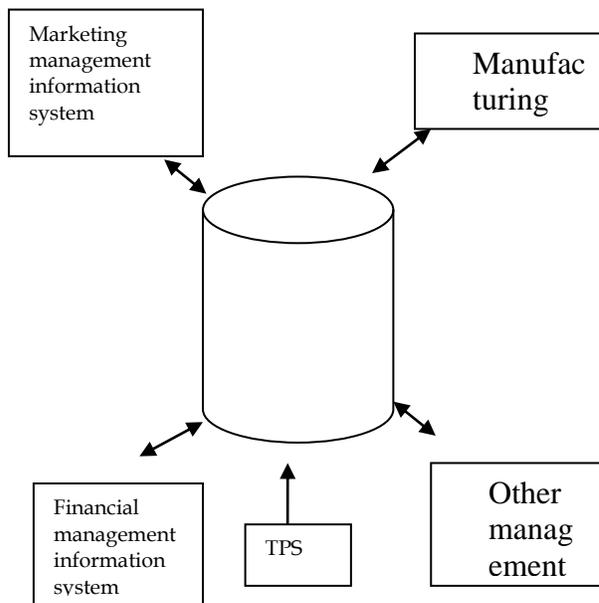


Fig.13.1 Functional Management information systems draw data from the organization's transaction processing system

MIS began to be developed in the 1960s and are characterized by the use of information systems to provide reports were produced periodically - daily, weekly, or monthly. On a regular basis, they were called *scheduled reports*. Other scheduled reports could be used to help managers from a variety of departments control customer credit, payments to suppliers, the performance of sales representatives, inventory levels, and more.

Other types of reports were also developed during the early stages of MIS. Demand reports were developed to give decision makers certain information upon request. For example, prior to closing a sale, a sales representative might seek a demand report on how much inventory exists for a particular item. This report would tell the representative if enough inventory of the item is on hand to fill the customer order. Exception reports describe unusual or critical situations, like low inventory levels. The exception report is produced only if a certain condition exists - in this case, inventory falling below a specified level.

#### Information systems in the functional areas of business

Information systems are used in all functional areas and operating division of business. In finance and accounting, information systems are used to forecast revenues and business activity, determine the best sources and uses of funds, manage cash and other financial resources, analyze investments, and perform audits to make sure the organization is financially sound and that all financial reports and documents are accurate. In sales and marketing, information systems are used to develop new goods and services (product analysis), determine the best advertising and sales approaches (promotion analysis), and set product prices to get the higher total revenue (price analysis).

In manufacturing, information systems are used to process customer orders, develop production schedules, control inventory levels, and monitor product quality. Information system is also used in the

human resource management to screen applicants, administer performance tests to employees, monitor employee productivity and more. Legal information systems are used to analyze product liability and warranties and to develop important legal documents and reports.

### **Information system principles**

Assembling an effective, efficient computer subsystem requires an understanding of its relationship to the information system and the organization. While we generally refer to the computer subsystem as simply a computer system. We must remember that the computer system objectives are subordinate to, but supportive of, the information system and organization.

The components of all information systems – such as input devices, people, procedures, and goals – are all independent. Because the performance of one system affects the others, all these systems should be measured according to the same standards of effectiveness and efficiency, given issues of cost, control, and complexity.

When selecting computer system, you also must consider the current and future needs of these systems. Your choice of a particular computer system should always allow for later improvements in the overall information system. Reasoned forethought – a trait required for dealing with computers, information, and organizational systems of all sizes- is the hall mark of true systems professional. Determine your hardware needs based on how the hardware will be used to support the objectives of the information systems and goals of the organization. Consider the trade- offs between overall systems performance and cost, control and complexity.

### **Characteristics of a management information system**

In general management information system performs the following functions:

1. Provide reports with fixed and standard formats.
2. Produce hard - copy and soft- copy reports.
3. Use internal data stored in the system.
4. End users are able to develop their own custom reports.
5. Require formal requests from users.