

Management Information System to Help Managers for Providing Decision Making in an Organization

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Abstract: Management Information System (MIS) provides information for the managerial activities in an organization. The main purpose of this research is, MIS provides accurate and timely information necessary to facilitate the decision-making process and enable the organizations planning, control, and operational functions to be carried out effectively. Management Information System (MIS) is basically concerned with processing data into information and is then communicated to the various Departments in an organization for appropriate decision-making. MIS is a subset of the overall planning and control activities covering the application of humans, technologies, and procedures of the organization. The information system is the mechanism to ensure that information is available to the managers in the form they want it and when they need it.

Keywords: management information systems, information technology, decision making

1. Introduction

MIS provides several benefits to the business organization: the means of effective and efficient coordination between Departments; quick and reliable referencing; access to relevant data and documents; use of less labor; improvement in organizational and departmental techniques; management of day-to-day activities (as accounts, stock control, payroll, etc.); day-to-day assistance in a Department and closer contact with the rest of the world.

MIS provides a valuable time-saving benefit to the workforce. Employees do not have to collect data manually for filing and analysis. Instead, that information can be entered quickly and easily into a computer program. As the amount of raw data grows too large for employees to analyze, business analysts can build programs to access the data and information in response to queries by management. With faster access to needed information, managers can make better decisions about procedures, future directions, and developments by competitors, and make them more quickly.

We are living in a time of great change and working in an Information Age. Managers have to assimilate masses of data, convert that data into information, form conclusions about that information and make decisions leading to the achievement of business objectives. For an organization, information is as important resource as money, machinery and manpower. It is

essential for the survival of the enterprise.

2. Information technologies

Management Information System (M.I.S.) is basically concerned with processing data into information. Data collection involves the use of Information Technology (IT) comprising: computers and telecommunications networks (E-Mail, Voice Mail, Internet, telephone, etc.). Computers are important for more quantitative, than qualitative, data collection, storage and retrieval; Special features are speed and accuracy, and storage of large amount of data. Telecommunications provide the means for one-way or two-way communication and for the transmission of messages. A combination of IT is used: telephone, computer, processor, printer, etc. A lot of time and money are saved and the security of data and messages is ensured. A management information system (MIS) enables businesses to provide answers to managers in search of knowledge. MIS does this by combining raw data about the organization's operations (contained in its basic information technology systems) with information gathered from employees in expert systems that reflect the organization's procedures.

Before the widespread use of computers, many organizations found difficulties in gathering, storing, organizing and distributing large amounts of data and information. Developments in computer technology made possible for managers to select the information they require, in the form best suited for their needs and in time they want. This information must be current and in many cases is needed by many people at the same time. So it has to be accurate, concise, timely, complete, well presented and storable. Most firms nowadays depend on IT. But personal computers (PCs) themselves will not improve organizational productivity: this only comes about if they are used efficiently and effectively. Putting in place the advanced technological systems needed to collect and sort data and employee information can be costly unless senior management, especially the CFO, controls the purchasing of the basic systems needed by different functional areas from the outset.

The information system is the mechanism to ensure that

information is available to the managers in the form they want it and when they need it. It is designed to support their work through providing relevant information for their decision-making. Computer systems can clearly aid organizations in the processing of data into accurate, well presented, up-to-date and cost-effective information. Whether that information is also concise, relevant, timely and complete will depend largely on the capabilities of the people involved in its processing and selection. The term management information system (MIS) made its first appearance in U.S. navy report on the use of computers to construct a single integrated system to manage all navy resources.

The MIS idea spread rapidly throughout the administrative systems community, encouraged by a spate of subsequent reports and conferences sponsored by the American Management Association. MIS was an "information" system because it informed managers, not because it was full of information in technical sense, though the distinction soon blurred as the idea of MIS spread.

MIS is every system, which provides information for the managerial activities in an organization. For about a decade, from its introduction in 1959 to the end of the 1960s, this very broad definition of MIS spread rapidly and was endorsed by industrial corporations, consultants, academic researchers, management writers, and computer manufacturers.

The term "management information system" (MIS) is synonymous with computer-based systems. Used broadly, it is seen as the system satisfying all the information needs of managers. MIS is the study of providing information to people who make choices about the disposition of valuable resources in a timely, accurate, and complete manner at a minimum of cognitive and economic cost for acquisition, processing, storage, and retrieval. Another definition emphasizes the use to which the information is put, rather than the way it is produced:

"A system to convert data from internal and external sources into information and communicate that information in an appropriate form, to managers at all levels in all functions to enable them to make timely and effective decisions for planning, directing and controlling the activities for which they are responsible." (Bee and Bee, 1999) Others, however, give it more limited scope. They see it as a system collecting and analyzing data and producing reports. Its purpose is to help managers to solve structured problems. But it should also fulfill a number of other purposes:

- It should provide a basis to analyze warning signals that can originate both externally and internally; this is the main function of data base;
- It should automate routine operations thus avoiding human work in the processing tasks;
- It should assist management in making routine decisions;
- It should provide the information necessary to make non-routine decisions;
- It should serve as a strategic weapon to gain competitive advantages.

3. MIS and decision-making

Management Information System (MIS) is basically concerned with the process of collecting, processing, storing and transmitting relevant information to support the management operations in any organizations. Thus, the success of decision-making, which is the heart of administrative process, is highly dependent partly on available information, and partly on the functions that are the components of the process. For example, if managerial objectives are absent or unclear, probably due to inadequate information, there is no basis for a search. Without information obtained through a search, there are no alternatives to compare, and without a comparison of alternatives the choice of a particular course of action is unlikely to yield the desired result. According to Alabi (1997) the search could be through:

Undirected viewing—this involves a general exposure to information where.

The search could be that the viewer has no specific purpose in mind.

- Conditioned viewing—the directed exposure does not involve active search to a more or less clearly identified area or type of information.
- Informal search—this is a relatively limited and unstructured effort to obtain specific information for a specific purpose. The information wanted is actively sought.
- Formal search—this is a deliberate effort, usually following a pre-established plan, procedure or methodology to secure specific information relating to a specific issue.

Adebayo (2007) stressed the need for MIS in decision making as it provides information that is needed for better decision making on the issues affecting the organization regarding human and material resources. MIS may be viewed as a mean for transformation of data, which are used as information in decision-making processes. Figure 1 shows this understanding about information as data processed for a definite purpose. (Lucey, 1997).

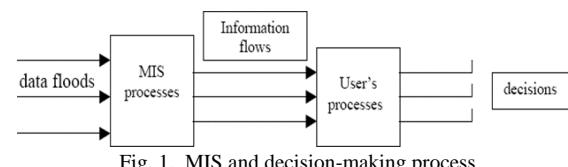


Fig. 1. MIS and decision-making process

There are so many definitions of MIS. For the purpose of this research, MIS can be defined as a system providing management with accurate and timely information necessary to facilitate the decision-making process and enable the organization's planning, control, and operational functions to be carried out effectively. So in this way MISs increase competitiveness of the firm by reducing cost and improving processing speed. Almost all business organizations normally have some kind of information system for management.

Accounting rules, stock control and market monitoring systems are the most traditional and common examples.

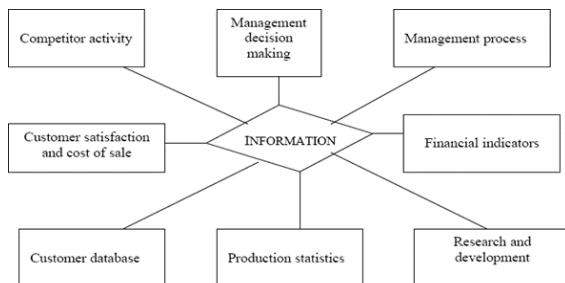


Fig. 2. Information – the life-blood of the organization.

Despite the enormous investment in IT during recent years, demonstrating the effects of such investment on organizational performance has proven extremely difficult. MIS differ from regular information systems because the primary objectives of these systems are to analyze other systems dealing with the operational activities in the organization. In this way, MIS is a subset of the overall planning and control activities covering the application of humans, technologies, and procedures of the organization. Within the field of scientific management, MIS is most often tailored to the automation or support of human decision making (O'Brien, 1999). Figure 3 shows the conceptually decomposing of the different management systems in an organization (Sørensen et al., 2009). Well-constructed and well-organized MIS can provide management with the knowledge it needs to reduce operating costs and increase profits. MIS can help management increase efficiency by quickly providing critical information about procedures and operations.

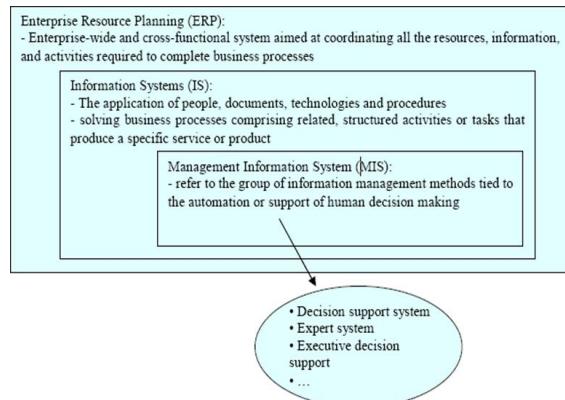


Fig. 3. Conceptual decomposing of the different management systems in an organization

4. Conclusion

MIS differ from regular information systems because the primary objectives of these systems are to analyze other systems dealing with the operational activities in the organization. In this way, MIS is a subset of the overall planning and control activities covering the application of

humans, technologies, and procedures of the organization. Within the field of scientific management, MIS is most often tailored to the automation or support of human decision making. Management information systems (MIS) make it possible for organizations to get the right information to the right people at the right time by enhancing the interaction between the organization's people, the data collected in its various IT systems, and the procedures it uses. It brings together the raw data collected by the various business areas of the organization, which, while useful for specific functions such as accounting, does not provide, by itself, information that can be used to make decisions. As organizations grow, MIS allows information to move between functional areas and departments instantly, reducing the need for face-to-face communications among employees, thus increasing the responsiveness of the organization.

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