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Management Information Systems

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The Management Information Systems (MIS) refers to a system that comprises of machines, people, databases, procedures, and data models. MIS gathers data from both internal and external sources of an organization. It then processes it before producing information that is utilized by the organization's management in the decision-making process (Nayak, Sequeira & Senapati, 2012; Berisha-Shaqiri, 2014). As such, MIS can be defined as an integrated system of machine and man used to provide information to support the decision-making, management and operational functions in an organization (Nayak, Sequeira & Senapati, 2012; Alcami & Carañana, 2012). It can also be defined as a computer system that is based on the organization's database and is evolved to provide information to the organization's management. This essay discusses the concept of MIS and its role in an organization.

Types of MIS

There are several types of Management Information Systems used by different organizations. These include Transaction Processing Systems (TPS), Decision Support Systems (DSS), Management Reporting Systems (MRS), Executive Support System (ESS), Office Automation (OAS) and Business Expert System (Nayak, Sequeira & Senapati, 2012; Berisha-Shaqiri, 2014). Transaction Processing System (TPS) consists of input, processing, storage, and output, and are used to process the transaction as well as produce reports. TPS represents the automation of basic, routine processing that is used to support business operations. However, TPS does not provide any information for decision-making. Examples of TPS include payroll and sales order entry (Khan & Khan, 2011; Alcami & Carañana, 2012). Management Reporting System (MRS) provides predefined types of information that managers use to make structured as

well as semi-structured decisions. MRS output is usually hardcopy reports such as demand and exception reports.

Decision Support System (DSS) provides information that is used for making both unstructured and semi-structured decisions at the middle levels of management. They analyze important blocks of data, focus on a specific set of decisions that are made at the middle and top management (Khan & Khan, 2011). Office Automation Systems (OAS) are designed to improve managerial productivity at different management levels by providing better communication and secretarial assistance. Business Expert Systems (BES) are advanced knowledge-based information systems that use their knowledge on specific, complex applications to act as expert (Prasad & Prasad, 2005; Mehta, Sudan & Dawra, 2003). Lastly, Executive Support System (ESS) is used at the strategic level of an organization that is designed to make unstructured decisions. ESS provide information that is relevant for an organization's top management, combine internal and external information to generate information in the form of graphics and summary reports (Alcami & Carañana, 2012; Khan & Khan, 2011).

Role of MIS in an Organization

Alcami and Carañana (2012) state that MIS plays the role of the heart in a body. First, MIS ensures that the correct data is gathered from various sources and that the collected data is processed to meet the information needs of the management (Alcami & Carañana, 2012). Secondly, MIS satisfies the needs of individuals and organization's management through various systems such as Analysis Systems, Query Systems, Modeling Systems, and DSS to aid in management control, strategic planning, transaction processing and operational control. The systems also help the management to plan, set targets and control the business functions of an organization. In addition, MIS plays a key role in the generation of information, problem

identification and communication that is necessary for the decision making process. As such, MIS is essential to the effective management of an organization (Mehta, Sudan & Dawra, 2003).

Benefits of MIS

MIS help organizations to identify their strengths and weaknesses through the provision of employees' performance records, revenue reports among others. Identifying these aspects can aid the organization to improve its business operations and processes (Khan & Khan, 2011; Joshi, 2013). Similarly, MIS-generated customer data and feedback can help an organization to align its business processes to meet customer needs. Customer data, if well managed can help the organization to perform effective, direct promotional and marketing activities to gain a competitive advantage. Prasad and Prasad (2005) state that the benefits of MIS can be summarized as: efficiency and time-saving, reducing costs as well as improved profits (Prasad & Prasad, 2005; Mehta, Sudan & Dawra, 2003; Khan & Khan, 2011).

Conclusion

A Management Information System (MIS) is an integrated system used to collect, store and disseminate data in the form of information that is used in carrying out management functions. The information generated by MIS can be used by business organizations to be more competitive in addition to helping to bring about organizational change. There are several types of MIS such as Management Reporting System, Transactional Processing System, Executive Support System as well as Decision Support System. The development and designing of an effective MIS involve the identification of the type of system needed, the type of information to be collected, the staff to use the system and the establishment of a quality control system to monitor the MIS. However, the success or failure of MIS ultimately depends on how the information provided is utilized by the management to make decisions.

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