



## SIM (Management Information System) in Organizations

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### ABSTRACT

Many human activities related to information systems, whether consciously or not, information systems have helped humans a lot. It should be noted that information systems do not always have to be complex—simple information systems. The system is only used to record sales transactions involving one person only; through a computer, the user enters sales data, and when the store is closed, a daily sales report is printed. Furthermore, the report is used to analyze salable items that are useful for making purchasing decisions. A management information system is a comprehensive, coordinated, and rationally integrated set of information sub-systems capable of transforming data into information through a series of ways to increase productivity by the style and nature of managers based on predetermined quality criteria. The development of a sophisticated computer-based MIS requires several highly skilled and long-experienced people and requires the participation of organizational managers.

### ARTICLE INFO

*Article history:*

Received 14 Jun 2021

Received in revised form

16 Jul 2021

Accepted 20 Sep 2021

### Keywords:

Management Information System, organization, Technology, business

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### INTRODUCTION

IMS serves to support a spectrum of tasks within the organization. In addition, IMS can also be used to help analyze decision making. This system can also integrate several information functions with computerized programs such as e-procurement. System Management information (MIS), also commonly known as a management information system (MIS), is designed to collect, store and disseminate data in the form of information needed to carry out various management functions.

Meanwhile, according to the business dictionary, a management information system is an organized approach to studying the information needs of an organization's management at every level for operational, tactical and strategic decision making. The management information system works, starting from data processing, is then stored in a centralized database where all authorized people can access and update information according to their goals. Many management and computer experts have defined the term Management Information System (MIS) with different perspectives. The term SIM has been known since the 1960s. The SIM concept at that time developed along with the development of the use of computer technology. At that time, the development of computer technology has provided a new awareness that computer applications must be applied to produce information that can be used as a management decision-making tool. The development of management information systems has led to significant changes in the pattern of decision-making by management both at the operational level (technical implementers) and leaders at all levels. This development has also led to changes in the roles of managers in decision-making; they are always required to obtain the most accurate and up-to-date information that can be used in the decision-making process. The increasing use of information technology, especially the Internet, has brought everyone to carry out activities more accurately, with quality, and on time. Management Information System information Systems produces outputs using inputs and various processes needed to fulfil specific objectives in activity management.

## Discussion

### SYSTEM

The system comes from Latin (*systēma*), and Greek (*sustēma*) is a unit consisting of components or elements connected to facilitate the flow of information, material or energy to achieve a goal. The term is often used to describe a set of interacting entities, for which a mathematical model can often be created. A system is also a unit of interconnected parts in an area and has driving items, for example, general examples such as countries. The state is a collection of several other unitary elements, such as interconnected provinces, to form a country where the people who act as the driving force are the people in the country. The word "system" is widely used in everyday conversation, discussion forums, and scientific documents. This word is used for many things and in many fields, so its meanings are varied. In the most general sense, a system is a collection of objects that have relationships among them. Several elements make up a system: Each system has a goal (Goal), either only one or maybe many. This goal is the motivator that directs the system. Without any purpose, the system becomes undirected and uncontrolled. Of course, the goals from one system to another are different. Several elements make up a system: Each system has a goal (Goal), either only one or maybe many. This goal is the motivator that directs the system. Without any purpose, the system becomes undirected and uncontrolled. Of course, the goals from one system to another are different. Several elements make up a system: Each system has a goal (Goal), either only one or maybe many. This goal is the motivator that directs the system. Without any purpose, the system becomes undirected and uncontrolled. Of course, the goals from one system to another are different.

System input is everything that enters the system and then becomes processed material. Inputs can be tangible (physically visible) or invisible things. An example of a tangible input is raw materials, while an intangible is information (e.g. customer service requests).

The process is the part that makes changes or transformations from inputs into practical and more valuable outputs, for example, in the form of information and products, but can also be in the form of useless things, such as waste disposal or waste. In the chemical plant, the process can be a raw material. In the hospital, the process can be a surgical activity patient.

Output is the result of processing. In information systems, the output can be in the form of information, suggestions, printed reports, etc.

## **INFORMATION**

Information is a message (speech or expression) or a collection of messages consisting of a sequence order of symbols or the meaning that can be interpreted from a message or collection of messages. Information can be recorded or transmitted. These can be recorded as signs or as signals based on waves. Information is a type of event that affects a state of a dynamic system. The concepts have many other meanings in different contexts. Information can be said as knowledge obtained from learning, experience, or instruction. However, this term has many meanings depending on the context and is closely related to concepts such as meaning, knowledge, negentropy, perception, stimulus, communication, truth, representation and mental stimulation. Information is data that has been given meaning through context. For example, documents in the form of spreadsheets (such as from Microsoft Excel) are often used to create information from their data. The income statement and balance sheet are a form of information, while the numbers in it are data that has been given context to become meaningful and valuable.

### **Etymology**

The word information comes from the old French word *information* (1387), taken from Latin, which means "outline, concept, idea". Information is a noun from *informal*, which means activity in "communicated knowledge".

Information is a vital function to help reduce one's anxiety. According to Notoatmodjo (2008), more information can influence or increase one's knowledge, and knowledge raises awareness that eventually a person will behave according to his knowledge.

### ***Terms, information***

Many people use the terms "information age," "information society," and information technology in the frequently highlighted fields of information science and computer science. However, the word "information" is often used without careful consideration of its various meanings.

## **INFORMATION SYSTEMS**

Understanding Information Systems According to Experts - In general, information systems can be defined as a system within an organization that is a combination of people, facilities, Technology, media procedures, and controls to obtain essential communication lines. Processing routine transaction types information, signalling to management and others on important internal and external events and providing an information basis for decision making.

Definition of Information Systems - According to Mc leod, information systems can collect information from all sources and use various media to display information.

Understanding Information Systems According to Experts –

- An information system within an organization that brings together daily transaction processing needs, assists and supports operational activities, is managerial and helps facilitate the provision of the necessary reports. (Erwan Arbie, 2000, 35).
- An information system is data that is collected, grouped, and processed so that it becomes unified information that is interrelated and mutually supportive so that it becomes valuable information for those who receive it. (Tafri D. Muhyuzir, 2001, 8).

- An information system is an organized combination of people (people), hardware (hardware), software (software), computer networks and data communications (communication networks), and databases (databases) that collects, transforms and disseminates information in the form of organization. More details can be seen in Figure 2.1 about the components of the information system. (O'Brien (2005, p5), )

## **MANAGEMENT**

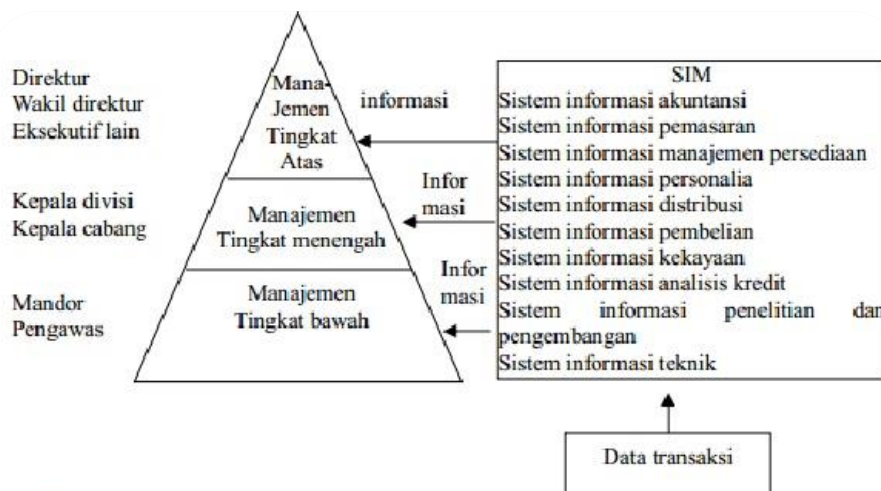
Next is management or management science of information. Management is a process of planning, organizing, leading, and controlling to achieve the goals set (Gaol, 2008). From the classical administrative principles, the activities carried out by a manager are included in the acronym POSDCORB (planning, organizing, staffing, directing, coordinating/ controlling, budgeting). In planning, managers define organizational goals, determine the direction of action for the organization, and determine strategic steps to achieve organizational goals. In organizing, managers organize operational activities so that they are by the goals to be achieved. Among others, by conducting a division of labour, determining the structure of authority and chain of command, placing employees in organizational units, etc. Manager control evaluates whether the achievements achieved by the organization are by the established standards.

## **MANAGEMENT INFORMATION SYSTEM**

From all of the above understanding of systems, information, and management, Management Information Systems can be concluded that establishing a management information system is so that the organization has a reliable system in processing data into useful information in making good management to decisions. Routine and strategic decisions. Thus the Management Information System is a system that provides organizational managers with data and information relating to the implementation of organizational tasks. The Management Information System is a network of data processing procedures developed within the organization and put together when deemed necessary to provide data to management whenever it is needed. Both internal and external data, for the basis of decision making in order to achieve organizational goals. Management Information System is a collection of information systems. MIS depending on the size of the organization, can consist of the following information systems:

- Accounting information system (accounting information system), providing information on financial transactions.
- Marketing information system (marketing information system), providing information for sales, sales promotion, marketing activities, market research activities and others related to marketing.
- Inventory management information system.
- Personnel information systems (personnel information systems).
- Distribution information systems (distribution information systems).
- Purchasing information systems (purchasing information systems).
- Wealth information systems (treasury information systems).
- Credit analysis information systems.
- Research and development information systems (research and development information systems).
- Engineering information systems (engineering information systems).

All of these information systems are intended to provide information to all levels of management, namely lower-level management, middle-level management and top-level management. Top-level management with executive management may consist of the president, director (vis-president) and other executives in marketing, purchasing, engineering, production, finance and accounting functions. Medium level management can consist of division managers and branch managers. Lower level management, called active management, can include forepersons and supervisors. Top-level management is also called strategic level, middle-level management with tactical and lower management with technical levels.



### Various roles of SIM in a company or organization, including:

- The New Role of Management Information Systems in Organizations
  - a. Initiation and design of strategic information systems.
  - b. Infrastructure planning, development and control.
  - c. Incorporating the Internet and e-commerce into business.
  - d. Manage system integration, including Internet, intranet and extranet.
  - e. Cooperation with the executive level in running the business.
  - f. Manage to outsource.
  - g. Proactively use business knowledge and Technology to explore innovative ideas about IT.
  - h. Create business alliances with vendors and IS Departments in other organizations.
  - i. Provides a new computing environment.
  - j. In addition to traditional functions: system security management, development and maintenance, computer operations.

### ***The Role of Sims in Decision Making in Organizations***

Management information system support for decision-making in an organization can be described according to three stages of the decision-making process: understanding, design, and selection. SIM support usually involves processing computer and non-computer files. At the stage of understanding the relationship with MIS, it is in the investigation process, which includes examining data either in a predetermined or unique way. The SIM must provide both ways.

The Information System itself must examine all data and submit requests to test situations that clearly demand attention. Both the MIS and the organization must provide a communication channel for clearly identified issues to be brought to the attention of the top-level organization so that these issues can be addressed. At this stage, it is also necessary to determine the possibilities. SIM support requires a database with community, rival and internal data plus methods for tracking and finding problems. At the design stage, the relation with MIS is making decision models to be processed based on existing data and initiating alternative solutions. Available models should help analyze alternatives.

SIM support consists of statistical software as well as other modelling software. This involves a structured approach, model manipulation, and database retrieval systems. MIS support for decision making consists of a comprehensive database, database retrieval capabilities, statistical and analytical software, and a model base containing decision model building software. The role of MIS is in the understanding process involving environmental research for conditions that require decisions. The term understanding here has the same meaning as problem recognition. Then in the design process and the selection process. Often people say that the computer will make decisions is a misguided statement and do not know where the role of the computer is and how a decision-making process is carried out. Decisions can only be taken or made by humans.

### ***Information Systems in Today's Global Business***

How have information systems changed the business world, and what does this have to do with globalization? E-mail, online conferencing, and cell phones have become essential tools in running a business. Information systems are the foundation of a fast-paced supply chain. The Internet allows many businesses to buy, sell, advertise and collect customer feedback online. Business organizations are becoming more competitive and efficient by digitizing their business processes and developing into digital companies. The Internet has driven globalization by drastically reducing the costs of producing, buying, and selling goods globally. Why are information systems so critical in running and managing businesses today? Information systems are the foundation of doing business today. It is not easy to survive and achieve strategic business goals in many industries without extensive use of information technology. Businesses today use information systems to achieve six main goals: operational excellence; new products, services and business models; proximity to customers/suppliers; better decision making; competitive advantage; and daily survival.

What exactly is an information system? How does it work? What are the management, organizational and technological components?. From a technical point of view, information systems collect, store and disseminate information from the organization's internal operations and environment to support organizational functions and decision making, communication, coordination, control, analysis, and visualization. Information systems transform raw data into useful information through three primary activities: input, processing and output. From a business point of view, information systems provide solutions to problems or challenges facing companies and represent a mix of management, organization, and technology elements. The management dimension of information systems includes issues such as leadership, strategy, and management behaviour. The technology dimension consists of computer

hardware and software, data management technology, and networking/telecommunication technology (including the Internet). The organizational dimension of information systems includes organizational hierarchy, functional specialization, business processes, culture, and political interest groups. What are complementary assets? Why are complementary assets essential to ensure that information systems provide genuine value to organizations? Organizations must support their technology investments with appropriate complementary investments in organization and management to derive meaningful value from information systems. These complementary assets include new business models and processes, supportive organizational culture and management behaviour, appropriate technology standards, regulations and laws.

New information technology investments are unlikely to produce high returns if businesses do not make managerial and organizational changes to support the Technology. What are the disciplines used to study information systems? How does each of these disciplines contribute to understanding information systems? What is a sociotechnical system perspective? The study of information systems discusses the problems and understandings contributed by the technical and behavioural sciences disciplines. The disciplines that contribute to a technical approach that focuses on systems capabilities are computer science, management science, and operations research. The disciplines that contribute to a behavioural approach that focuses on the impact of design, implementation, management and business on systems are psychology, sociology, and economics. The sociotechnical view of systems considers the technical and social features of the system and solutions that represent the fit between them.

## Conclusion

A management information system is a comprehensive, coordinated, and rationally integrated set of information sub-systems capable of transforming data into information through a series of ways to increase productivity by the style and nature of managers based on predetermined quality criteria. The development of a sophisticated computer-based MIS requires several highly skilled and long-experienced people and requires the participation of organizational managers. All information systems have three main activities: receiving data as input (input), processing it by performing calculations, merging data elements, updating and others, and finally obtaining information as output (output). The information system of an organization or company can never be fully or entirely automated. However, a management information system is possible and practical if it is based on an excellent overall plan and developed by trained system personnel. Management participation and adequate financial resources are required. Information systems that serve the main tasks of the organization must be cross-functional and must be continuously improved to maintain their continued effectiveness. The organization's main task is often served by a decision support system (DSS) which contains models, databases, and managers who interact directly. Information system integration is one of the fundamental concepts of management information systems.

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