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# Development Of Management Information Systems (Mis) In Islamic Educational Institutions

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## ABSTRACT:

The Islamic educational institutions always try to keep up with current developments, including in the field of information and communication technology, we can see this from the management information system (MIS) which is implemented in the continuity of Islamic education activities starting from the madrasah, Islamic boarding school and university levels. This research aims to find out how Islamic educational institutions run SIM from time to time and why Islamic educational institutions need to manage SIM well, as well as the advantages and disadvantages of SIM in Islamic educational institutions. This research is library research whose object is sought, with various library information such as books, scientific journals, magazines, newspapers and documents. The results of this research show that: Information systems in educational institutions have changed over time, starting from manual information systems, computerization and digitalization. Islamic educational institutions need to manage actuating MIS well because this is the solution most widely used in managing academic data of educational institutions, capable of providing communication facilities, fast and accurate exchange of data and information. In today's digital era, Islamic educational institutions are increasingly aware of the importance of quality education. One step that can be taken is to implement a management information system in all educational activities at Islamic educational institutions. Examples of SIMs implemented by Islamic educational institutions are: EMIS, D-PDM, SIMPATIKA, PPDB SIM, LMS, Assessment MIS, and others.

Keywords: Management Information System, MIS actuating, MIS example

#### ABSTRAK:

Lembaga pendidikan islam selalu berusaha mengikuti perkembangan zaman, termasuk dalam bidang teknologi informasi dan komunikasi, hal ini dapat kita lihat dari sistem informasi manajemen (SIM) yang diterapkan dalam keberlangsungan kegiatan pendidikan islam mulai dari tingkat madrasah, pondok pesantren maupun perguruan tinggi. Penelitian ini bertujuan untuk mengetahui bagaiman lembaga pendidikan islam menjalankan SIM dari masa ke masa dan mengapa lembaga pendidikan islam perlu mengelola SIM dengan baik, serta bagaimana kekurangan dan kelebihan SIM dalam lembaga pendidikan islam.. Penelitian ini merupakan Penelitian pustaka (library research) yang objeknya dicari dengan berbagai informasi pustaka seperti buku, jurnal ilmiah, majalah, koran, dan dokumen. Hasil penelitian ini menunjukkan bahwa: Sistem informasi dalam lembaga pendidikan mengalami perubahan dari masa ke masa, mulai sistem informasi manual, komputerisasi, dan digitalisasi. Lembaga pendidikan islam perlu mengelola SIM dengan baik karena hal ini merupakan solusi yang paling banyak digunakan dalam mengelola data-data akademik lembaga pendidikan, mampu menyajikan fasilitas komunikasi, pertukaran data maupun informasi yang cepat dan akurat. Di era digital sekarang ini, lembaga-lembaga pendidikan Islam semakin sadar akan pentingnya pendidikan yang berkualitas. Salah satu langkah yang dapat ditempuh adalah dengan penerapan sistem informasi manajemen pada seluruh aktivitas pendidikan pada lembaga pendidikan Islam. Adapun contoh SIM yang dilaksanakan lembaga pendidikan islam yaitu : EMIS, D-PDM, SIMPATIKA, SIM PPDB, LMS, SIM Penilaian, dan lain-lain.

Kata Kunci: Sistem Informasi Manajemen, Pengelolaan SIM, contoh SIM

#### INTRODUCTION

Competition in the world of education is increasingly competitive resulting in educational institutions carry out the right innovations in order to win or survive in the face of it. Management information systems play a role strategic in facing free competition at this time. Where is the system information and information technology combined with other components such as processes, procedures, organizational structure, human resources, management, culture organization and other related components in forming an information system. Good management is one of the keys to success.

In the principles of Islamic teachings, everything should not be done haphazardly. carelessly but must be done neatly, correctly, in an orderly and orderly manner and the processes The process must also be followed in an orderly manner. In a history of the Prophet Muhammad said: which means: "Indeed, Allah loves those who do a job is done in an Itqan (precise, directed, clear and complete)". (HR Thabrani). Actually, management means managing everything something to be done well, precisely, and completely is something that It is prescribed in Islamic teachings because in Islam the direction, gayah (goal) is clear a solid foundation and correct kaifiyah are good deeds loved by Allah swt.

Abudin Nata said that nowadays Islamic education continues to be faced with various problems that are increasingly complex because of the efforts to improve themselves through structuring human resources, increasing competency and strengthening institutions is an absolute must done and all of this is impossible without professional management<sup>1</sup>.

Islamic educational institutions also always try to keep up with developments era, including in the field of information and communication technology, we can do this look at the management information system that is starting to be implemented in continuity of Islamic education activities starting from the madrasah and Islamic boarding school levels Islamic boarding schools and universities. An information system is a unit of interconnected components, collect (or recover), process, store, and distribute information to support decision making and control in an organization. Apart from that, information systems also help managers to research problems, visualize complex points and create new products. It can be said that an information system is a series of formal procedures through which data are collected. Information systems are a combination of various resources including hardware, software, netware, brainware, and so on data. In an information system there are also inputs, models,

<sup>&</sup>lt;sup>1</sup> Ali Murtopo, 'Sistem Informasi Dalam Manajemen Pendidikan Konsep Dan Pelaksanaan Dalam Lembaga Pendidikan', *Jurnal Al-Afkar*, 8.2 (2020).

processes, outputs, storage and control, so that information systems can be used to plan, processing, controlling and mixing data in an organization.

In general, a system consists of interconnected elements forming a single unit to carry out the main objectives of the system the. The main purpose of a computer system is to process data for produces information so it needs to be supported by the elements it consists of from hardware, software and users (brainware). These three elements of a computer system must be interconnected and form one unit. There is no hardware without software means nothing, just an inanimate object. Both hardware and software too cannot function if there is no human to operate it. Data as a resource in an organization or company needs to be managed properly well, computer-based data resource management emphasizes the importance of database management and its application in management information systems.<sup>2</sup>

According to Romney, the definition of a system is a series of two or more interconnected components that interact to achieve a goal. Meanwhile, according to Hall (2007) the system is a group of two or more interconnected components or subsystems which serves the same purpose. As for the meaning of system and produce information as stated by The American The National Standards Committee in La Midjan and Susanto is a data processing system, a collection of humans, machines and methods that organized to fulfill a set of functions.<sup>3</sup> A system is a set of interconnected components work together to achieve several goals. Apart from that, understanding the other system consists of elements and input, processing (processing), as well as output (output).<sup>4</sup>

Thus, in simple terms the system can be interpreted as a collection or set of organized elements or variables, interact and depend on each other. The system is designed for improve or improve information processing. The definition of information according to Kusrini and Koniyo (2007) is data which has been processed into a form that is meaningful for the user, which useful in current decision making or supporting sources information. Meanwhile, according to Susanto (2004), information is the result of data processing that provides meaning and benefits. From the definition above, you can It was concluded that data must be processed first in order to become information which is useful for information users. Which comes from data processing must be information that meets the criteria of being timely, relevant and reliable. From the description of information, there are three important things that must be done according to Susanto (2004),

<sup>&</sup>lt;sup>2</sup> Alfriza Frisdayanti, 'Peranan Brainware Dalam Sistem Informasi Manajemen', *JEMSI Journal*, 1.1 (2019).

<sup>&</sup>lt;sup>3</sup> Frisdayanti.

<sup>&</sup>lt;sup>4</sup> Hamdi Agustin, 'Sistem Informasi Manajemen Menurut Prespektif Islam', *Jurnal Tabarru': Islamic Banking and Finance*, 1.1 (2018), 63–70 <a href="https://doi.org/10.25299/jtb.2018.vol1(1).2045">https://doi.org/10.25299/jtb.2018.vol1(1).2045</a>.

namely as follows: (1) Information is the results of data processing, (2) Provide meaning or meaning, and (3) Useful or beneficial.

Furthermore, Mc. Leod (Susanto, 2008) states that a Quality information must have the following characteristics: (1) Accurate, meaning information must reflect the actual situation, (2) Timely, meaning the information must be available or exist when the information is needed, no tomorrow or not in a few hours, (3) Relevant, meaning the information provided must be in accordance with the needs of individuals at various levels and parts of the organization, and (4) Complete, meaning that the information must be provided completely.<sup>5</sup>

Management comes from the word "manuh" in Latin which means "hand". Subsequently, the term management developed into a general meaning which means "handling an activity" namely how to control and arrange it. Management comes from the English word to manage, which means arrange, administer, or manage. According to Malay SP Hasibuan, management is the art of managing the process of utilizing human resources effectively effective, supported by other sources within the organization to achieve specific purpose. According to George R. Terry, it is generally said that Management is a distinctive process consisting of actions planning, organizing, mobilizing and supervising to achieve goals that have been set through the use of human resources and other resources.<sup>6</sup>

Management Information Systems are a collection of interacting systems information responsible for collecting and processing data for provide useful information for all levels of management in planning and control activities<sup>7</sup>. Joseph F. Kelly (1990), defines Management Information System (MIS) as a combination of resources human and other computer-based resources resulting in a collection of storage, retrieval, communication and use of data for the purpose of efficient management operations and sharing business planning. Harbangan defines Management Information Systems implies a group of people, a set of guidelines and a selection of equipment data processing, storing, processing and using data to reduce uncertainty in decision making by providing information to managers so that they can use their time efficiently.<sup>8</sup>

From the description above, it can be concluded that management information systems are a combined system of machine systems and human systems so that produce accurate

<sup>&</sup>lt;sup>5</sup> Frisdayanti.

<sup>&</sup>lt;sup>6</sup> Fifi Nur Himatus Sa'adah and Akhmad Zaenul Ibad, 'Sistem Informasi Manajemen Pendidikan (Simp) Kepala Sekolah Dalam Pengambilan Keputusan Di Smk Islam Al-Khoiriyah', *AL Miskawaih*, 2.1 (2021).

<sup>&</sup>lt;sup>7</sup> Anggi, 'Sistem Informasi Manajemen: Arti, Fungsi, Contoh, Dan Manfaatnya', *Accurate.Id*, 2023 <a href="https://accurate.id/marketing-manajemen/sistem-informasi-manajemen/">https://accurate.id/marketing-manajemen/sistem-informasi-manajemen/>.

<sup>&</sup>lt;sup>8</sup> Astin Lukum, 'PENDIDIKAN 4.0 DI ERA GENERASI Z: TANTANGAN DAN SOLUSINYA', *Pros. Semnas KPK*, 2.2 (2019), 2.

information or facts for its users to use supports decision making on management activities in the organization. Basically, management (planning, implementing, organizing and evaluation) in good educational management, will be able to achieve the goals Islamic education is expected to be in accordance with the Koran and As-Sunnah.<sup>9</sup>

#### Management Information System Components

Management information system components can work together to carry out activities to provide appropriate information at the right time as stated by Judith C. Simon. The information system components The management consists of:

#### 1) Human

Humans can move other components in the system such as hardware, software, operating procedures etc.

#### 2) Procedure

Procedures are used to provide guidance on how things should be humans run information systems. This procedure is also used by humans to operate hardware through owned software.

### 3) Hardware

Hardware is physical equipment in the form of a computer. Computer run using a binary number system. In this digital era, form Computers are increasingly varying according to running needs management.

#### 4) Software

Software is a term used for instructions that are owned a piece of hardware. These instructions are also called programs. Software consists of operating system and application programs. The software gives commands to running hardware.

## 5) Data

Data is a term that refers to the facts of a topic

certain. Data can be transformed into valuable information. And can be in the form of recordings, documents, note sheets.<sup>10</sup>

Humans who run SIM are also called Brainware, they are people who owns, builds and operates management information systems. Term The person here is not just anyone in the sense of being a person, but a person who have competence (knowledge and skills or expertise). For example, a programmer creates or improves computer programs currently used. Programmers must have competence (science and skills or expertise) and in accordance with the

<sup>&</sup>lt;sup>9</sup> Sholechan Sholechan, 'Implementasi Sistem Informasi Manajemen Di Smp Islam Terpadu Al Ummah Jombang', *Chalim Journal*, 1.1 (2021).

<sup>&</sup>lt;sup>10</sup> Sa'adah and Ibad.

level of the system information, have a minimum education of D3 in computer and information science, or Experienced in computer accounting. Brainware is grouped as following:

- Information systems manager (management/accounting), a)
- b) Systems analyst,
- c) Communication expert,
- Database administrator, d)
- e) Programmer,
- f) Operators, and
- Librarian.11 g)

Management Information Systems and Their Development in Islamic Education Computers were first introduced in 1954 for a implementation of the payroll processing business sector.12

The history of the development of management information systems is basically inseparable from development of information technology. Management Information Systems (MIS) follow suit dynamics that occur in technological achievements, because SIM is a system that using technological devices and continuously updating them in collecting and processing data into a information. Before the invention of computers, SIMs in principle existed because information needs are not managerial needs can be postponed. To implement it, manual work is required human hand. From data recording, processing to production All information is purely done manually.

In subsequent developments, management information systems were impossible to run without technological support because of the increasingly extensive and large amount of material will be managed and processed. That's why, since computer technology was discovered, he directly into the realm of management. However, in subsequent developments, Computer-based information systems continue to meet various challenges of progress and stages in accordance with the development of computer technology itself.<sup>13</sup>

Towards the year 2000, many software applications began to be developed. This is an era where management information system technology is increasingly being refined approaching perfection. Improvements made include: Network access speed is easier and faster and brings

<sup>&</sup>lt;sup>11</sup> Frisdavanti.

<sup>&</sup>lt;sup>12</sup> Gordon B Davis, Kerangka Dasar Sistem Informasi Manajemen (Jakarta: PT. Pustaka Binaman Pressindo, 2003).

<sup>&</sup>lt;sup>13</sup> Lukman Hakim, Prinsip-Prinsip Dasar Sistem Informasi Manajemen (Jambi: CV Timur Laut Aksara, 2019).

benefits for the decision-making process to become easier due to access easy and fast information. Some enterprise specific applications starting to be integrated and can be accessed by various other departments in company. The software that has been developed can already integrate various divisional roles within the company. Finance, marketing, accounting, human resources, and other parts in a company can work the same and also connected to each other.<sup>14</sup>

In 2000, the Ministry of Religion first introduced the application data collection system called EMIS (Education Management Information System) This makes Islamic educational institutions transform into data collection digital. This application is also always developing following technological developments, so it is still in use today, since 2020 the name becomes EMIS 4.0 because it has been updated and adapted to the system contemporary technological architecture. The Scrum methodology is used to ensure consistency The software used can more quickly adapt to user needs increasingly complex and dynamic.

Development after development has brought technology computers today where the peak of development is occurring is the best development that is super fast. The internet era is also an era smartphones. Information can be accessed anywhere, anytime, with speed outstanding. Users can read information in the palm of their hand.

In today's digital era, Islamic educational institutions are increasingly aware about the importance of quality education. This condition demands effort in improving the quality of education in various aspects. One step What can be done is by implementing a management information system in all educational activities at Islamic educational institutions. <sup>15</sup> This is where the urgency lies Management Information Systems in Islamic educational institutions to be discussed. Management information systems have been widely used in educational institutions, including Islamic educational institutions, although it is not evenly applied to all types and levels of education. Use of management information systems in Islamic educational institutions not only as an automation process towards access information, but also create accuracy, speed and completeness an integrated system, so that organizational processes will run smoothly efficient, scalable and flexible. There have been many successful educational institutions developing information technology to support information systems education management. In fact, it extends to the use of technology information in the learning process. Advances in information technology make it possible anyone adopts various learning models that are more effective, efficient, has added value and is innovative. Learning models provide sufficient space for educators to search for new formulations for provide additional knowledge and skills for

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<sup>&</sup>lt;sup>14</sup> Hakim, p. 7.

<sup>&</sup>lt;sup>15</sup> Aziz Prasetya, Chusnul Chotimah, and Agus Zainul Fitri, 'Penerapan Sistem Informasi Manajemen Pendidikan Dalam Kompetisi Bisnis', *EDUCATIO*, 18.1 (2023).

students. System educational management information can run if all components are in place. These educational institutions can use and utilize management information system applications.<sup>16</sup>

Example of a Management Information System (MIS) in Islamic Education Islamic educational institutions have SIMs that are programmed nationally and implementation of SIM within the local scope of the institution. There are examples of SIMs implemented nationally in educational institutions Islam, namely:

- 1) EMIS (Education Management Information System)
- 2) D-PDM (Madrasah Student Data)
- 3) PDUM (Madrasah Examination Database)
- 4) Verval PD (Student Validation Verification)
- 5) EDM e-RKAM (Madrasah Self-Evaluation, Electronic Work Plan and Madrasah Budget)
- 6) BOSS OF THE MINISTRY OF REGULATION
- 7) ANBK (Computer Based National Assessment)
- 8) SIMPATIKA (Educator and Personnel Management Information System Ministry of Religion Education), etc

Examples of SIMs within the local scope of Islamic educational institutions are:

- 1) PPDB SIM
- 2) LMS
- 3) Assessment SIM
- 4) E-Report, etc

The application of management information systems in educational institutions is very important needed, because in facing global competition educational institutions required to provide information more quickly, accurately and comfortably is part of the quality of service, so it will be an advantage compete. However, Human Resources (HR) and managers are experts in management is the main key, no matter how great the progress science and technology, the role of human resources such as educators, education staff and heads Institutions greatly determine success.

This research discusses how Islamic educational institutions carry out MIS from time to time and why Islamic educational institutions need to manage MIS well. And what are the advantages and disadvantages of MIS in Islamic educational institutions.

<sup>&</sup>lt;sup>16</sup> Anwar Darwis and Hilal Mahmud, 'Sistem Informasi Manajemen Pada Lembaga Pendidikan Islam', *Kelola: Journal of Islamic Education Management*, 2.1 (2017) <a href="https://doi.org/10.24256/kelola.v2i1.444">https://doi.org/10.24256/kelola.v2i1.444</a>.

#### Methods

This research is library research. The object is searched for using various library information such as books, scientific journals, magazines, newspapers and documents. Library research is an internal method search, collect and analyze data sources to be processed and presented in the form of a Library Research report. Library research is a type of qualitative research that is generally carried out in a non-immersive manner field in searching for data sources. Library research can also be done is defined as research conducted solely based on works written, including research results both already and unpublished.<sup>17</sup>

The definition of library research according to experts includes: as follows;

Noeng Muhadjir (1996:169) Library research is more research requires philosophical and theoretical processing rather than empirical tests in the field. Because theoretical and philosophical in nature, more frequent library research using a philosophical approach compared another approach. Library research methods include data sources, data collection, and data analysis.<sup>18</sup>

Mardalis (1999) Library research can be defined as research that aims to collect data and information through the help of various types of materials found in the library room, for example: books, magazines, documents, notes and historical stories and others.

In essence, data obtained through library research can be used basic foundation and main tools for carrying out field research. Mardalis too stated that this research is research that discusses data secondary.<sup>19</sup>

Library research is research that can be carried out in library or elsewhere as long as there are relevant reading sources. As for The methods used in this library research include: Search keywords, Subject search, searching for the latest scientific books and articles, and Search citations in scientific sources relating to system components management information.

## Discussion

In the development of information and communication technology, it has succeeded in opening up possibilities for activities that were previously difficult or even impossible to do, but can now be done easily, for example the activity of sharing information on new student admissions which usually uses banners but now through IT can be known to everyone and also

<sup>&</sup>lt;sup>17</sup> Penelitian.com, 'Penelitian Pustaka', 2023 <a href="https://penelitianilmiah.com/penelitian-kepustakaan/">https://penelitianilmiah.com/penelitian-kepustakaan/</a>>.

<sup>&</sup>lt;sup>18</sup> Evanirosa Hasnawati, dkk, *Metode Penelitian Kepustakaan ( Library Research )* (Bandung: Cv media sains indonesia, 2022).

<sup>&</sup>lt;sup>19</sup> Milya Sari, 'Penelitian Kepustakaan (Library Research) dalam Penelitian Pendidikan IPA', *Jurnal Natural Science*, 2.1 (2020).

activities to send information or educational activities online. And related to the implementation of management information systems along with the infrastructure components of information and communication technology, this has truly marked a civilizational revolution that allows jobs in organizational systems to be completed quickly, accurately, effectively and efficiently<sup>20</sup>.

The information system in educational institutions has changed from time to time, we can feel how in the 1990s information was conveyed manually, student data was handwritten, payment administration was handwritten, even the delivery of information to students' parents was often conveyed by handwriting or by hand, mouth to mouth.

In the world of education, the management and use of educational management information systems cannot be separated from educational activities themselves, which are related to the teaching and learning process and from the moment students and teachers enter the school and also leave the school. The increase in science and technology, especially in the field of computerization, has shown that these developments can help solve problems in the process of implementing educational management information systems. And by utilizing management information technology, it will also be possible to reduce the stages of the work process in the organization. This utilization and development will later be able to help all related parties within an organization and the school community.<sup>21</sup>

Management information systems are specifically designed to meet the needs of schools or other educational institutions that want computerized education services to improve performance, service quality, competitiveness and the quality of the human resources they produce. Information technology plays an important role in improving the performance of an organization. Its use is not only as an automation process for information access, but also creates accuracy, speed and completeness of an integrated system so that the organizational processes that occur will be efficient, measurable, and flexible. The use of information technology is a nonnegotiable necessity, because the availability of integrated information is increasingly important in supporting efforts to create efficient and competitive company/organization systems. The management information system is very helpful in managing data on student grades, subjects/courses, data on teaching staff (teachers/lecturers) as well as faculty/department administration which is still manual and can be done with the help of software in order to save time and reduce operational costs. The management information system makes it easy to manage the Learning Process, Teacher Data, Student Data, Subject Data and Student Grade Data.

<sup>&</sup>lt;sup>20</sup> Imam Hambali, 'Implementasi Sistem Informasi Manajemen (SIM) Dalam Meningkatkan Mutu Proses Pembelajaran', *Jurnal Pendidikan : EDUMASPUL*, 5.1 (2021), p. 125.

<sup>&</sup>lt;sup>21</sup> Hambali, p. 126.

Currently, almost all Islamic educational institutions manage SIM well because the Ministry of Religion has also facilitated software that can be used by Islamic educational institutions, especially at the RA, MI, MTs, MA level to be managed and utilized according to its function, such as the application: EMIS (Education Management Information System), D-PDM (Madrasah Student Data), PDUM (Madrasah Examination Database), Verval PD (Students Validation Verification), EDM e-RKAM (Madrasah Self-Evaluation, Electronic Madrasah Work Plan and Budget), BOSS of the Ministry of Religion, ANBK (Computer Based National Assessment), SIMPATIKA (Ministry of Religion Management Information System for Educators and Education Personnel). The SIM application is managed by the Madrasah Operator (OPM) who carries out duties as brainware. In a scientific journal written by Nur Rahmi Sonia in 2020 with the title "Implementation of the Education Management Information System (Simdik) in Improving the Quality of Education at Madrasah Aliyah Negeri 2 Ponorogo" shows that the implementation of the education management information system at MAN 2 Ponorogo is in the form of utilizing an application system which consists of teaching and education staff services by empowering the SIMPATIKA application (Information System for Educators and Education Personnel of the Ministry of Religion), e-learning learning applications, BNI eduPATROL applications, fingerprint applications for both teachers and students and webbased applications for accepting new students (PPDB ) is reinforcing data that Islamic educational institutions have indeed implemented SIM.<sup>22</sup>

Islamic educational institutions need to manage SIM well and develop management information systems actively and continuously. Every management information system user has the right to provide positive input based on their needs. Various problems that exist in the world of education today have been able to be overcome by the use of computer networks which are able to provide communication facilities, exchange data and information quickly and accurately, and make the distance between users unimportant. With the existence of a network, users can speak in text and audio-visual form, the variety of facilities that can be provided by a network is very dependent on the type and version of the application used and of course must be supported by adequate hardware conditions as a prerequisite for using application software. Management information systems are the most widely used solution in managing academic data for educational institutions in Indonesia. Apart from simplifying the data management process, this information system also reduces operational costs that must be incurred by the relevant institutions. This is very appropriate to the country's current uncertain economic conditions. As

<sup>&</sup>lt;sup>22</sup> Nur Rahmi Sonia, 'Implementasi Sistem Informasi Manajemen Pendidikan (Simdik) Dalam Meningkatkan Mutu Pendidikan Di Madrasah Aliyah Negeri 2 Ponorogo', *Southeast Asian Journal of Islamic Education Management*, 1.1 (2020), p. 94.

explained in the previous chapter, the use of the management information system itself can be a very profitable tool for students who are unable to participate in academic processes directly, such as carrying out the registration process, or the teaching and learning process in class.

Conventional learning methods require students or students to meet face to face with the teacher to obtain learning material. In the modern era, methods like this have become less relevant and ineffective. In modern education, information technology intervention is needed to support the implementation of learning activities both at the Madrasah and tertiary levels. In the era of globalization, education needs to adapt to changes in thinking patterns and needs that are fast-paced, practical and precise. The presence of information technology is able to serve these needs. With IT support, students can access information widely through the use of technology, especially the internet. Interaction between students and teachers becomes more flexible and free. Information technology acts as a learning aid through various modern communication means. For example, computers, cell phones, electronic mail (email), online learning software, and so on. This means that IT support provides teachers with the opportunity to continue providing learning without having to meet face to face with their students. Likewise, students can obtain material, information and references with a wider range. The presence of internet technology has also made the implementation of the education system easier and more practical. This can be seen from the development of cyber teaching methods, aka virtual learning that utilizes the internet. In general, the role of information technology, especially for modern education, includes<sup>23</sup>:

- 1. Facilities that help and complement the teaching and learning process in a practical and modern way.
- 2.Information and communication technology acts as a learning vehicle to deliver educational material quickly, precisely and efficiently.
- 3. Facilities that help retrieve, process, store and present data quickly, precisely and efficiently.

The advantages and disadvantages of managing management information systems in education are<sup>24</sup>:

Advantages of Management Information Systems

- 1.Providing communication within organizations between organizations that is cheap, accurate and fast.
- 2.Can store large amounts of information in a fairly small space, but is easy to access.

<sup>&</sup>lt;sup>23</sup> Herry Kiswanto, 'Pemanfaatan Teknologi Informasi Dalam Pendidikan Masa Kini', *SEVIMA*, 2022 <a href="https://sevima.com/pemanfaatan-teknologi-informasi-dalam-pendidikan-masa-kini/">https://sevima.com/pemanfaatan-teknologi-informasi-dalam-pendidikan-masa-kini/</a>.

<sup>&</sup>lt;sup>24</sup> Ulty, 'Kelebihan Dan Kekurangan Sistem Informasi Manajemen', *Lancang Kuning.Com*, 2021 <a href="https://lancangkuning.com/post/32166/kelebihan-dan-kekurangan-sistem-informasi-manajemen.html">https://lancangkuning.com/post/32166/kelebihan-dan-kekurangan-sistem-informasi-manajemen.html</a>.

- 3.Can enable access to a lot of information throughout the world in a fast and easy way.
- 4.Increase the effectiveness and efficiency of people working in groups in one place or in several locations.

Disadvantages of Management Information Systems

- 1. Changes in Information Systems are rapid, so we may not necessarily be able to adopt these changes.
- 2. There is a shortage of experts in the field of Information Systems
- 3. There are indications of misuse of sophisticated information systems

#### Conclusion

Based on the explanation in the discussion, it can be concluded that Management Information Systems (MIS) are a combination of human resources and technology to provide useful information. The management information system consists of: people, procedures, hardware, software, and data.

Examples of SIMs implemented by Islamic educational institutions are: EMIS (Education Information Management System), D-PDM (Madrasah Student Data), SIMPATIKA (Ministry of Religion Management Information System for Educators and Education Personnel), PPDB SIM, LMS, Assessment SIM, and etc.

Islamic educational institutions follow current developments in SIM management so that they are able to compete on the global stage.

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