Information System Management in Improving Education Services of Public Madrasah Aliyah in Jambi Province

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Article Info	ABSTRACT
	This research is motivated by the state of the state madrasah aliyah in Jambi Province. This research aims to examine the information system management in improving education services of State Madrasah Aliyah in Jambi Province. Research using a qualitative approach was conducted at the Jambi Province State Aliyah Madrasah. The main purpose of this research is to obtain scientific information as useful input for the development of information system management in improving education services of State Aliyah Madrasahs in Jambi Province. The main focus of this research is to examine the application of information systems management that uses various applications in improving educational services at State Aliyah Madrasahs in Jambi Province. The results of this study indicate that Information system management at the State Aliyah Madrasah in Jambi Province includes the stages of planning, organizing, mobilizing, controlling, coaching, and assessing.

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INTRODUCTION

National education in the state system of the Republic of Indonesia aims to educate the nation's life as stated in the Preamble of the 1945 Constitution of the Republic of Indonesia. Consequently, education is a tool to achieve one of the goals to be achieved by the Indonesian nation (Irawati & Susetyo, 2017; Jono, 2016). In order for the national goal to be achieved better, of course, many things must be considered, including curriculum, facilities and infrastructure, costs and educators and education personnel (Azhari & Kurniady, 2016; Iskandar, 2019; Usman, 2016). One of the things that occupies an important position in the management of these educational components is the aspect of information system management in the

management of the education system which is a necessity in today's modern education system (Sulistyaningrum et al., 2020).

Information system management makes it easier for the Islamic education bureaucracy to provide services in the field of education to the community (Agustin, 2018; Badrudin & Nurdin, 2019; Darwis & Mahmud, 2017). With the availability of information system tools, services for providing educational data bases, documentation and information delivery can be done quickly and accurately (Hariyanto, 2018). The intensity of information system management in education management at Madrasah Aliyah in Jambi Province is increasing day by day, this is an inevitable necessity due to the growing types of services that must be provided, both from the aspects of institutional, student, infrastructure and facilities as well as in the process of budget management and education financing (Yunita & Devitra, 2017).

Since the last few years the paradigm of education services in all State Aliyah Madrasahs in Jambi Province has been directed towards a more modern information system managerial process and intense utilization of information technology, this is indicated by the number of information technology applications used in information system management both from the aspects of student affairs, teaching and education personnel, facilities and infrastructure and the budgeting process. There are at least two purposes of information technology in education, namely for academic purposes and to support the learning process concerned, both formal and non-formal (Aryani et al., 2019).

The Ministry of Religious Affairs of Jambi province has determined several applications that should be used in the education service process at Madrasah Aliyah Negeri in Jambi province, including:

1. *Education Management Information System (*EMIS*).* This application contains all data related to all aspects of the management of education services at Madrasah Aliyah Negeri which are connected and integrated nationally starting from the education unit level, district / city level, provincial level.
2. SIM SARPRAS (Facilities and Infrastructure Management Information System). SIM Sarpras is an application that accommodates data on applications for madrasah facilities and infrastructure assistance that is managed centrally and integrated into the central Ministry of Religious Affairs. This application can also be used to monitor the availability of madrasah facilities and infrastructure which leads to decision-making in the field of madrasah facilities and infrastructure.
3. SIMPATIKA (Educator and Education Personnel Management Information System). This application contains data on educators and education personnel, eligibility for TPG payments, screening for teacher certification participants, screening for training participants (in the future), screening for UKG participants (in the future) and other services.
4. SIM BOS (School Operational Assistance Management Information System). SIMBOS is an application developed to help madrasah institutions collect data on madrasah students, more specifically in the context of collecting data for proposing to enter the Indonesia Pintar Program.
5. SIKURMA (Madrasah Curriculum Information System). The 2018 Raport Application issued by the Ministry of Religious Affairs (KEMENAG) aimed at serving the community

contains the Digital Raport Application (ARD) which functions to record the report card scores of madrasah students in accordance with the madrasah curriculum standards (Kanwil, 2023).

Almost all types of services carried out in the education management of State Aliyah Madrasahs in Jambi Province use information technology. On the one hand, it provides many advantages in terms of the effectiveness and efficiency of task implementation, but on the other hand it also leaves problems, especially related to the ability to master information technology. The use of information technology that continues to develop in all lines and accessibility is very intense, requiring special abilities and skills both in terms of manual or automatic use and human intelligence of its users. These are signs of globalization in the rapid use of technology (Kanwil, 2023).

The use of information systems in each madrasah does not simply go without problems. Some madrasahs that are representative of the research area include MAN 1 Batanghari, MAN 1 Merangin, and MAN 1 Sarolangun , still experiencing obstacles in implementing information systems. Constraints come from various aspects in the field, such as problems with human resource readiness, infrastructure, and unstable internet networks. The five State Aliyah Madrasahs in Jambi Province generally experience problems at the level of education providers, namely at the madrasah level, this problem includes madrasah personnel and the readiness of management support infrastructure.

Based on the researcher's observations at the madrasah, it is suggested that the readiness of human resources at MAN 1 Batanghari, MAN 1 Merangin, and MAN 1 Sarolangun has not yet reached the fulfillment of teacher work needs according to standards. As an example, there are still educators who have not been able to operate computers in completing learning report tasks. So many activities of educators are in contact with the use of information systems such as grade reports, exam questions, learning media, and *online learning* that require them to operate technology as a whole. With this problem, educators need information system management updates that provide many opportunities for them to learn to deepen their knowledge so that the expected quality of education services can be fulfilled (Observation, Problems in Using Information Systems for Educators at MAN 1 Batanghari, MAN 1 Merangin, and MAN 1 Sarolangun, 2022).

Human resources are a key factor in implementing information systems in madrasah. So that the educators' reports do not hamper the overall school report, some of the things done by the madrasah head can be by giving educators the opportunity to complete with education personnel or administrative staff. This cannot be resolved easily, because of the small number of education personnel while there is a lot of work that should be reported (Atmanti, 2005; Nordskogen & Sterten, 2016; Syafaruddin, 2003; Tichy et al., 1982).

Related to the readiness of people who run information systems, other problems also arise from supporting facilities and infrastructure in madrasah. Initial observations show that the number of facilities and infrastructure provided by madrasah should answer the needs of the existing student capacity. The acceleration of education in madrasah is inseparable from the use of management information systems, a condition that is expected to achieve the quality of

education services and even be able to create madrasah productivity that contributes to the development of all personnel including students, teachers and staff. The number of supporting facilities such as computers, laboratory rooms, internet networks and stable electricity that should be owned by madrasahs has not fully met the capacity needs of teachers, staff and students. There is still limited access to facilities for all madrasah personnel to operate the application (Rani et al., 2023).

All State Madrasah Aliyah in Jambi province are now required to implement an information system management to manage all madrasah data. In reality, the convenience that should be obtained by teachers, students, and staff in updating data is actually one of the difficulties. This is as the results of temporary observations previously explained that the use of this information system must be supported by individual abilities and skills, the facts found that skills, abilities, and facilities have not been able to support its application.

Seeing the phenomenon of the high intensity of information technology utilization as described above, a good information system managerial process is needed so that the system built is really able to make a positive contribution to managerial services both from the aspects of curriculum, teaching and education personnel, student affairs, budgeting and financing as well as educational facilities and infrastructure at Madrasah Aliyah Negeri in Jambi Province.

METHOD
Participants

The research was conducted at Madrasas in Jambi Province. Principals, teachers and head administrators make up the overall population in this study in the 2022/2023 academic year. The sample used is a non-probability sample with a purposive sampling technique, namely a sampling technique with certain considerations. The researcher considered the sample through purposive sampling in this study so that the appropriate samples in this study were the MAN 1 Batanghari, MAN 1 Merangin and MAN 1 Sarolangon schools.

Procedures

This research uses a qualitative approach which is a research approach that requires an in-depth and comprehensive understanding related to the object under study to answer problems and obtain data and then analyze and obtain research conclusions in certain situations and conditions. Qualitative approaches are directed at the setting and the individual as a whole, so it is not justified to isolate individuals or organizations into variables or hypotheses, but it is necessary to see them as part of a whole (Faisal, 1982; Sugiyono, 2019). Through research one seeks to discover, explain and describe a fact, event and reality. Good research does not depart from mere conjecture, wishful thinking, delusion or hallucination.

FINDINGS AND DISCUSSION

Information System Management at State Aliyah Madrasahs in Jambi Province.

The application of information systems in madrasahs to manage various data related to teaching staff, students, facilities and infrastructure, financing, and learning, has been implemented in State Aliyah Madrasahs in Jambi Province. Based on the results of the study, it shows that the information systems used by the three madrasahs studied are EMIS (*Education Management System* Information) and SIMPATIKA (Educator and Education Personnel Management Information System) applications. Both systems become the madrasah database that plays a role in the process of program planning and madrasah policy making. The successful implementation of information systems in the Jambi Province State Aliyah Madrasah cannot be separated from the professional management process. This research looks at how information systems are managed in three madrasahs, namely MAN 1 Batanghari, MAN 1 Merangin, and MAN 1 Sarolangun.

The management process begins with planning the information system implementation program, organizing authority and tasks, using information systems in processing data, evaluating the level of success, and developing data collection programs for madrasah personnel. Each stage of information system management at MAN 1 Batanghari, MAN 1 Merangin, and MAN 1 Sarolangun will be described as follows:

Management of Information Systems in Improving Madrasah Education Services at MAN 1 Batanghari

The management of information systems at MAN 1 Batanghari involves the head of the madrasah, teachers and employees. Starting with the plan to use the application to process madrasah data, the main purpose of using the application is to speed up and facilitate access to information. The main purpose of implementing an education management information system was stated by the head of MAN 1 Batanghari to help provide information to all madrasah personnel and to be a means for all members to participate in data management according to their respective sections. The application of the information system also increases the knowledge of teachers and students in using technology and applications (Interview, Head of Madrasah, Purpose of the Education Management Information System Program at MAN 1 Batanghari, 2022).

Achieving the goals of implementing information systems in madrasah will be more effective if it is internalized into the vision and mission of the madrasah, but different things were found at MAN 1 Batanghari. After the researchers observed the vision and mission of the madrasah, no words were found that directly mentioned the elements of information technology, but there was only a mention of "deep and broad insight into science and technology" in the madrasah *output* excellence goals. Excellence in technological knowledge and skills is aimed at students as graduates of the madrasah and is not intended as a target to be achieved for improving the abilities of teachers and staff (Observation, Relevance of Information System Objectives to the Vision and Mission of MAN 1 Batanghari, 2022).

The management information system is not solely applied in madrasah, previously it has gone through the needs analysis stage. The program design has gone through the analysis stage according to the needs of the madrasah. Stages passed before implementation such as socialization from the head of the madrasah field of the Ministry of Religious Affairs office starting from the province, district, to the madrasah head level. The decision to implement the information system is based on the demands of providing and delivering information quickly from the school level to the government and helping to monitor madrasah development more transparently.

The design of the information system requires the support of adequate madrasah facilities. This was revealed by the MAN 1 Batanghari operator that some of the equipment that must be prepared by the madrasah to use online-based data collection is hardware such as computers that have a large capacity and MAN 1 Batanghari already has several computer units that can be used by teachers, staff and students. In addition to computers, it must also be equipped with software or software that supports the operation of educational information system applications. Computer units and software are the main parts that must be prepared by madrasah and to operate them, technical guidelines and databases are needed. Researchers conducted observations and found that MAN 1 Batanghari already has technical guidelines for the use of information systems in the madrasah and also has menus which are the general database of the madrasah.

Madrasahs have placed an operator who has the skills to use computers and provide computers. The availability of computers is inseparable from good budgeting. As expressed by the treasurer, after a meeting between me, the madrasah head, and the deputy of infrastructure facilities, the madrasah is budgeting the addition of school computers from existing funds to help teachers and staff who do not have laptops or personal computers. The head of MAN 1 Batanghari revealed that after I saw the financial condition of the madrasah and the need for computer-skilled personnel not only operators, because teachers are also required to be able to report learning and the development of their work based on computers, then we budgeted funds for training activities. Actually, we are also waiting for information if there are training activities organized by the Ministry of Religious Affairs, so our funds are ready to be used even though we are working on adding computers.

MAN 1 Batanghari already has computer and network facilities and infrastructure, but its condition has not been able to meet the minimum service standards (SPM) of a madrasa. The researcher's observation of the duties of the deputy head of facilities and infrastructure that although there are many things that want to be programmed, considering the ability of existing funds, the program is arranged to include: structuring the madrasah environment, procurement of equipment, maintenance of equipment, maintenance of buildings, maintenance of courtyards and gardens, procurement of PBM equipment with LCD, office equipment including computers and printers, construction of order rooms, procurement of furniture, rehabilitation of BP / BK rooms for the deputy head of madrasah room, construction of RKB, optimization of laboratory utilization, and optimization of multimedia utilization.

In the planning stage, although MAN 1 Batanghari did not directly mention the target of achieving technological skills, it was mentioned in the madrasah objectives. Both the Ministry of Religious Affairs and the madrasah principal and team have also analyzed the needs of physical facilities and human resources to support the education management information system. The madrasah principal has also drafted a budget to meet facility and development needs. The education management information system designed by the government has been accepted and implemented by MAN 1 Batanghari. The madrasah head stated that the SIMPATIKA and EMIS programs have been delivered to the madrasah appropriately. The operator and I attended the socialization when the program was first launched and then the application was implemented gradually according to the capabilities of each madrasah.

The basis for the division of tasks to operate the program is determined based on the results of the madrasah head and deputy head meetings. Researcher observations show that the division of tasks in madrasah is competency-based. This is evidenced by EMIS and SIMPATIKA operators who continue to update student and teaching staff data. Operators also have a complete madrasah database. The ease of updating madrasah data is strongly supported by the ability of the operator. MAN 1 Batanghari operators also revealed that the main requirement to operate this management information system application is IT skills.

For educators, the application of education management information systems is a challenge. According to the head of MAN 1 Batanghari, some teachers do not have the ability to support the use of performance report applications. Teachers' efforts to still be able to complete reports even though they are unable to operate applications on computers by involving operators to help complete their performance reports. For teachers who are able to use IT, they learn independently and are also assisted by operators after they can operate the report themselves. To prepare teachers who are able to run the Madrasah Curriculum System application, teachers directly practice online learning reporting accompanied by operators. According to the observations of researchers, some of the duties and main tasks of teachers that are included in the curriculum system report are teaching programs including Analysis of subject matter (AMP), Annual Program (Prota), Lesson Unit Program (SP), Teaching Program Plans (RPP), Student Activity Sheets (LKS) (Interview, Head of Madrasah, IT Skills of Educators MAN 1 Batanghar, 2022).

Some of the main tasks that must be carried out by MAN 1 Batanghari teachers with the support of IT capabilities are expressed by one of the teachers, namely carrying out learning activities, mastering subject matter, selecting methods, conducting assessments of KBM results, adjusting curriculum developments, making and compiling worksheets (Job Sheet), and collecting and calculating credit numbers for promotion.

Delegation of authority as part of the organizing stage has been carried out by MAN 1 Batanghari. If sorted before reaching the madrasah, the division of authority to use the management information system has been carried out by the ministry through socialization of applications and features. Then continued at the madrasah level by conducting competency-based division. Operators who get the responsibility for managing data have the ability in the

field of information technology and teachers who are able to use computers can operate independently, while teachers who are less technologically proficient are assisted by operators.

Encouragement is needed for the smooth implementation of the management information system at MAN 1 Batanghari regardless of the form of motivation. So the operator as one of the keys to the success of implementers at the madrasah level must get complete facilities according to their work needs. The head of MAN 1 Batanghari revealed that to optimize madrasah facilities that can support the application, it must optimize the operator.

The implementation of the madrasah management information system requires the efforts of all parties to optimize the use of the EMIS and SIMPATIKA applications. Several things that need to be done by MAN 1 Batanghari, as observed, are socialization, practice, and *rewards* and *punishments*. Socialization and direct practice on how to use applications and devices that are able to support application access must be given to all teachers because each teacher has the obligation to make reports on learning tools, learning implementation, and reports on learning evaluation results. If all these reports are assigned to the operator, there will be a buildup of work that causes the data collection process to be slow. An effort that can encourage teachers and staff to master the use of management information systems is to provide *rewards* for those who have been able to operate themselves and always update reports. *Rewards take* many forms, from words of praise to small gifts. Meanwhile, *punishment in the* form of reprimands or additional tasks is given to teachers who do not want to participate in learning it. At the Ministry of Religious Affairs level, *rewards* can be given to madrasahs that have the best and most up-to-date reports, while *punishments are* given to madrasahs that do not update their data at all.

In implementing the infrastructure management information system, several MAN 1 Batanghari facilities included in the data collection were explained by the head of the madrasah including classrooms, laboratories, offices, and libraries. The data management is carried out by the operator with the help of the deputy head so that there are no input errors because the existing data will be one of the considerations of the Ministry of Religion to reduce assistance. To control the use of the education management information system in the madrasah, the head of MAN 1 Batanghari conducts supervision. Similarly, to encourage teachers and monitor staff, the principal supervises teachers directly. According to the deputy head, the head of the madrasah often asks about the feasibility of computers that can still be used. If something is damaged, the head instructs me or the operator to make repairs so that when needed, there is no confusion.

The use of this information system not only makes it easier for school principals to control data and monitor the condition of the madrasah, but also benefits all parties. As found during the observation, the management information system application is very helpful in accessing information on the existence of facilities and infrastructure and their feasibility. The information can be accessed by both the madrasah and the Ministry of Religious Affairs. The curriculum information system application helps teachers update reports related to the curriculum in the madrasah that is applied as a learning guide, especially for processing student grades. The management information system also opens up greater opportunities for madrasahs to obtain Student Operational Assistance funds, because the Ministry of Religious Affairs can continue to

monitor the real state and development of MAN 1 Batanghari, and what facilities and infrastructure still need additional or repair.

Supervision techniques carried out by madrasah heads to staff and teachers through individual meetings. The MAN 1 Batanghari head meeting is a conversation to exchange ideas between the head and staff and teachers. In the dialog, the head of the madrasah tries to develop the positive aspects of the staff and teachers. In addition to exploring the positive side, the madrasah head encourages them to reveal the problems faced and the ways that have been done to overcome work difficulties. then the head follows up by helping to solve problems related to budget funds, access to government, and coordination among madrasah members. The madrasah head conducts supervision through supervision activities so that the head knows what problems are faced by staff, teachers, and operators. Then take action as a step to solve the obstacles to implementing the information system and with this supervision the madrasah head can also convince the Ministry of Religious Affairs of the needs of the madrasah.

The coaching step given to operators, staff and teachers is training. Researchers observed that in order for teachers and staff to use the Educator and Education Personnel Management Information System, the head of MAN 1 Batanghari provided guidance through practice and discussion. The same thing is done to train teachers to use the curriculum information system while the BOS information system is run by the operator under the supervision of the madrasah head. Assessment of the implementation of the management information system at MAN 1 Batanghari is carried out directly by the leadership. The head of madrasah revealed that the implementation of the EMIS program has met the standards so that all madrasah data can be seen directly in EMIS and I check it regularly together with the operator. The BOS information system is different because it has not yet reached the data collection target so that the submission of BOS assistance must still be supported by manual-based data. Madrasahs are also located in areas that are far from internet coverage so they often experience internet network problems when uploading data and the upload must be done many times.

The advantages of using information systems, both EMIS and SIMPATIKA, provide greater opportunities for madrasah teachers to obtain certification and report certification. This was stated by the head of MAN 1 Batanghari that several teachers were selected as certification recipients, one of which was seen from the data listed on the education information system. SIMPATIKA, which is a database of educators and education personnel, contains complete teacher data such as when the teacher's duties began in the madrasah, what subjects he/she teaches, how long the teacher has been teaching in the madrasah, and how many hours the teacher teaches. If the data is not met in accordance with the requirements in the system, the teacher cannot apply for certification. For teachers who have received certification, if the data is not met, the report will be rejected and the teacher will be considered not to have completed their duties and obligations.

The position of the management information system for MAN 1 Batanghari is very important because it not only helps the madrasah in general to get the title of the best report, but also greatly helps teachers in carrying out career development. Students can also access

information about general madrasah data more easily and quickly. The head of MAN 1 Batanghari has planned the implementation of the management information system to the maximum, although on the way it stillencounters several obstacles. Operators as the spearhead of data entry and outputhave been placed according to their expertise and carry out their duties accordingto their duties and functions, although sometimes they have to help teachers who have difficulty if they have to do their own data collection due to limited abilities or devices.

Information Systems   Management in   Improving   Madrasah   Education Services at MAN 1 Merangin

The managerial process carried out by the head of MAN 1 Merangin pays attention to all elements of the madrasah environment so that every madrasah program and Ministry of Religious Affairs program implemented in the madrasah has a vision and mission that is in line. The management information system program created by the Ministry of Religious Affairs has been used to process data on students, teachers, facilities and infrastructure, and reports on learning outcomes. Thus, the vision and mission of the madrasah reflect the prioritization of information technology capabilities and development. The main purpose of the information system according to the head of madrasahis to carry out managerial processes and manage data so that educational information in madrasah can be used by everyone. The online-based MAN 1 Merangin data collection program has been designed in accordance with the conditions of the madrasah so that it can be operated optimally, various facilities and infrastructure are prepared by the head. The existing supporting facilities include hardware such as computers, laptops, printers and internet networks. Whilethe software owned by madrasah such as data, software, and human resources.

The external strategic environment of MAN 1 Merangin can affect the implementation of education and can be potentially positive for the progress of the madrasah. The principal and deputy principal have conducted a needs analysis of the madrasah to map the condition and importance of the education management information system for the madrasah, the results of which are as follows:

Table 1. Condition Analysis Table MAN 1 Merangin 2022

No.	External Factors	Analysis Result Condition Description
1.	Socio-economic Condition of the Community	- Parents of students come from socio-economic groups that vary from weak, moderate to well-off economic groups. - The origin of students who come from different regions/villages. - Community/parental expectations for quality education services. - Parent/community commitment to the progress of the madrasah.

2.	Political and Security Conditions around Madrasah	- Political conditions tend to be stable and conducive. - The commitment of stakeholders and representatives of the people to gradually realize the amount of the education budget in the APBD, especially at MAN 1 Merangin.
3.	Globalization and Science and Technology/IMTAQ factors	- Students' response to the use and utilization of science and technology/IMTAQ is quite high. - The demands and expectations of having information technology (IT) in madrasah management are increasing. - Interest in using the internet for madrasah and educational purposes is perceived as an urgent need.
4.	Geographical Environment of Madrasah	- The madrasah is located in the city and adjacent to MTsN 1 Merangin, SMPN 1 Merangin, and SMA N 1 Merangin. - Madrasah environment with other Madrasah support. - Transportation facilities to MAN 1 Merangin are easily traversed by both two-wheeled and four-wheeled vehicles.
6.	Madrasah Committee Potential	- The potential management of the Madrasah Committee has been well organized, with a fairly credible composition of the board. - Organization and Tupoksi of Madrasah Committee Management that has been organized and administered in an orderly manner. - The commitment of the Madrasah Committee to advance the madrasah by extracting resources that allegedly support the progress of the madrasah.
7.	Culture	- The religious community of Merangin Regency is an asset for the development of education at MAN 1 Merangin. - A conducive life among neighboring madrasas will have a positive impact on the smooth implementation of the program to be implemented.

The analysis of madrasah needs based on the data above shows that the application of

management information systems has become a demand starting from the student level to the teaching staff. Madrasahs can grow rapidly and are in great demand by prospective students when people can access information easily. Information from the government to madrasah and vice versa will be faster and more responsive with an automated data system. In realizing the relevance of educators to the development of technology and the business world, MAN 1 Merangin organizes life skills education, spiritual skills, social skills, academic skills. These skills are an integral part of all local content subjects and self-development, namely handicrafts and computers. In addition to setting goals and analyzing madrasah needs, planning for the implementation of information systems includes madrasah plans to meet the needs of supporting facilities. The operator of MAN 1 Merangin revealed that currently what is needed by teachers and educators is socialization regarding the use of the application because they must have updated reports into the system. The madrasah head's plan to achieve proper facilities is structured by designing a madrasah budget to complete the shortage of facilities needed.

The plan to implement an information system to manage MAN 1 Merangin's data was welcomed by the madrasah head and teachers with some notes relatedto madrasah readiness. The program is in accordance with the development of system-based madrasah data collection, which underlies the openness of the madrasah to prepare a budget to meet the needs of hardware and software programs. The delivery of the program to MAN 1 Merangin was less than optimal, as stated by the head of madrasah that the program was not organized systematically. After the madrasah head received socialization of the application from the Ministry of Religious Affairs, there was no further guidance to the madrasah. If the madrasah head waits for program elaboration from superiors, the madrasah willfind it difficult to meet the data collection report according to the ministry's target, therefore the madrasah head must be more active in pursuing new accurate information.

The main requirement for MAN 1 Merangin operators is to have the basic ability to operate information technology. Staff who become madrasah operators determine the success of teacher data processing, from inputting to verifying or updating data in Simpatika. The madrasah teachers' skills in using the application independently have not been maximized; they still depend on the operator tomonitor the data stored in the system.

The migration of student data into the system has also been carried out by the operator based on the orders of the madrasah head. Before migrating all data, the operator prepares the complete data in Emis so that when the data is connected there are no differences in information. The head of madrasah also provides guidance and direction to teachers to always follow the latest information announced on the curriculum system. If teachers need data and have difficulty processing the data themselves, they can coordinate with the operator.

Implementation in the field sometimes encounters many obstacles even though the madrasah has tried to prepare the facilities. To overcome the limited resources, the madrasah head utilizes the madrasah facilities that are already available and budgets madrasah funds to add a number of facilities that have not been fulfilled. The head of madrasah also always updates information about changes in EMIS and studies it with the operator. The head of madrasah always informs teachers of changes so that they can be followed up quickly. In addition to the madrasah head looking for information on his own, teachers were involved in Simpatika training. In every meeting, the madrasah head always reminds teachers and gives directions to update their knowledge and work reportsin the madrasah curriculum system. So that teaching tools, assessment plans, and student learning assessment results can be seen in the

madrasah system.

The madrasah operator has entered MAN 1 Merangin's facilities and infrastructure data into the system. This data can be openly accessed by every user online and can also be searched through the madrasah website. Students and the general public can also open what facilities and infrastructure are owned on Emis madrasah. In its application, students have not been fully involved in using the management information system, their involvement is only limited to exam purposes. Students have not been involved in managing the website or reporting student activities to the system and only the operator updates student data.

Control from the head of madrasah is very important to monitor the progress and obstacles faced by the operators. The head of MAN 1 Merangin explained that monitoring the work of education staff and operators is always carried out at all times. The head always coordinates with madrasah operators regarding the progress of data collection so that all madrasah data is periodically improved. Monitoring is also carried out to check the level of feasibility of the facilities so that the head quickly takes action. Emis at MAN 1 Merangin does not only provide information on the availability of facilities and infrastructure, student and teacher data. Data on facilities and infrastructure that are needed but not yet owned by madrasah are also entered into the system. Information on the condition of students, teachers, and facilities and infrastructure needed by the madrasah can indirectly improve the madrasah BOS. The data registered in the system is part of the assessment of the suitability of assistance capacity, so it is very important to always update the information on the condition of the madrasah to improve the existing facilities.

Madrasahs also have advantages that can be utilized to support management information systems. The advantage of MAN 1 Merangin's position which is located in the center of Bangko district creates internet network stability so that the madrasah does not have internet problems. Madrasah has provided an internet network by installing wifi that can be connected to all computers and andoird teachers, staff, and students. Teachers who are registered in Simpatika also benefit because they have a high chance of being selected for teacher certification. It also encourages teachers to pay attention to *updating* data on EMIS and Simpatika.

Information System Management in Improving Educational Services of Madrasah MAN 1 Sarolangun

Information systems are one of the programs that greatly assist the management process at MAN 1 Sarolangun. In every stage of the management process can utilize the data available in the system. The benefits of information systems can be felt if the system implemented in the madrasah is well managed. So this research looks at how the management of information systems carried out by the madrasah starting from program planning, organizing programs to related officers, mobilizing so that it is maximally implemented, control from the head or supervisor to keep it running according to design, fostering the ability of staff and teachers, and evaluating the implementation of the program so that the information system really helps the decision-making process.

Researchers conducted observations of activities related to the use of information systems at MAN 1 Sarolangun and conducted interviews with madrasah heads, operators, and teachers to obtain information about the management of information systems needed. After researchers conducted several interviews and observations and then examined theories related to information

system management, researchers finally found that there were no clear operational standards specifically for operators in carrying out their duties, the program was not delivered optimally, and skilled teacher support had not been fulfilled. Next, we will explain in detail the activities carried out by the madrasah head at each stage of information system management in the madrasah.

The madrasah head generally understands the main purpose of the information system program to carry out managerial processes and manage educational data or information at MAN 1 Sarolangun. The applications used by the madrasah in data processing are EMIS and Simpatika. The head of madrasah said that both applications are in accordance with the needs of madrasah information storage and processing, which also comes from the Ministry of Religious Affairs. Every teacher and education personnel whose name has been registered in the school homebase will be included in Simpatika. Similarly, student data and facilities and infrastructure are stored in EMIS madrasah.

Madrasa readiness is included in planning the implementation of information systems. During the planning process the head of MAN 1 Sarolangun not only looks at the suitability of the program objectives with the needs of the school, other things regarding computer and network facilities are considered. The madrasah must be physically ready so that education personnel who are assigned to operate the information system can respond to commands quickly. Some complete information related to teachers, employees, and students is the main data needed to start moving data from manual to system data, said the madrasah operator.

The head of MAN 1 Sarolangun has tried to make careful preparations because the socialization of the implementation of the madrasah management information system has long been delivered. Plans to add facilities that meet the capacity of the EMIS and Simpatika systems are compiled in the annual work plan. To achieve the capacity and strength of data storage, the madrasah upgraded the use of applications and computerized systems. The madrasah head instructed the operators to learn the system and improve the computer's ability to process data and synchronize multiple data sources. The capacity of the computer determines the speed of input and service of information.

The organization of the information system program to the madrasah is not running perfectly. The head of the madrasah considers that the granting of authority and the delivery of programs to MAN 1 Sarolangun has not been maximized, many bureaucratic related rules slow down the delivery of information to the madrasah, moreover the madrasah is located in a district that is far from the city of Jambi. In the madrasah environment, the delivery of the program is also hampered so that elements related to the use of the application cannot be held immediately. Also, when there are changes to update the system, the madrasah must wait for information from the Ministry of Religious Affairs from the province to the district and only then is it received by madrasah managers.

The job description of MAN 1 Sarolangun education personnel who are assigned as operators is conveyed directly by the head of the madrasah. Because all information entered into the system becomes an overview of the madrasah profile, in addition to the madrasah head who gets the latest information from superiors both the Ministry of Religious Affairs in the province and district. So that there are no errors in data collection that can become findings of discrepancies between what is reported and the actual situation.

The head of MAN 1 Sarolangun has set a minimum standard for education personnel who become operators, namely computer skills. In order for madrasah reports to be completed on time, operators must be able to operate computers properly. The main requirement for giving assignments as operators requires education personnel to have experience working in the computer field or taking computer education and the like. If there are technical problems such as a broken computer or an application that cannot be accessed, the operator will quickly fix it and be able to find the best solution so that the data collection is completed.

The operator will be a central figure for teachers to help complete their work related to information system-based reports. The operator revealed that currently MAN 1 Sarolangun still needs skilled personnel to help teachers who are unable to operate computers. I not only complete data collection of students, infrastructure, or other madrasah data, I also have to help teachers complete their reports when the performance report announcement is received. In addition, there are also reports related to lesson plans, learning processes, and learning outcomes that must be inputted and not all teachers are able to do it themselves.

The implementation of the information system at MAN 1 Sarolangun is inseparable from the completeness of the facilities. The head of the madrasa said that to optimize the application of educational information systems, we try to complete supporting facilities in the form of computers, laptops, hard disks, electric power, rooms equipped with adequate internet networks, wifi that can be accessed by all teachers, staff, and students, and generators to overcome power outages so that work is not hampered. Knowledge provision is useful for mobilizing education personnel to process data on the system. To optimize the work of education personnel and teachers, MAN 1 Sarolangun operators received briefings on Emis and Simpatika by attending training activities organized by the Ministry of Religious Affairs. Operators also learn independently to be able to operate the application when there is an application upgrade. Because the application is always upgrading and updating, the operator's knowledge must also be updated.

To maximize the implementation of Simpatika at MAN 1 Sarolangun, the head of madrasah asked the operator to always upgrade the data of educators and education personnel. So that the Ministry of Religious Affairs can also monitor the development of teachers and education personnel in the madrasah through the available system. All data that has been inputted into Simpatika is connected to Emis data, as well as student data in Sim BOS and infrastructure data directly connected to madrasah EMIS data. The head of MAN 1 Sarolangun also gave the operator the task of socializing the use of the application to teachers and practicing directly using a personal laptop for those who do not have can use school computers. Operators explained what data they had to input into the system, what menus had to be accessed, and how teachers could enter data into the system appropriately.

The information system implemented by MAN 1 Sarolangun to record assets both in the form of resources and human resources of education in the madrasah. According to the head of the madrasah, the system has not been utilized optimally, for example, all facilities owned by the madrasah have not been recorded entirely into the system. Madrasahs still have to update data to update information on the state of madrasah facilities. Student participation in the use of the information system is still lacking. Teachers emphasized that in data collection students are not directly involved, the data needed in the EMIS system is collected by the teacher. Teachers and homeroom teachers coordinate information related to students.

The head of MAN 1 Sarolangun controls the implementation of the management information system and operator performance on a regular basis. By seeing the work of the operators in updating madrasah data, the head of madrasah can monitor the progress of data collection in EMIS and Simpatika. The head of themadrasah together with the deputy of facilities and infrastructure conducts aninspection of the feasibility of the facilities used to manage data in the information system. Access to information becomes very easy and fast with the information system in the madrasah. According to the head of MAN 1 Sarolangun, the management information system that functions to manage infrastructure data helps the madrasahhead when he needs to make quick decisions with data evidence. Teachers also feel the benefits of the madrasah curriculum system, making it easier for teachers to process grades and receive aid funds from the government, one of which is seenfrom the data of students, teachers, and facilities in the system.

In terms of coaching, the head of MAN 1 Sarolangun does not provide coaching to operators because operators have received training, said the head of madrasah. To maximize and improve the EMIS system, the head of madrasah asks theoperator to always update. Similarly, for teachers, it is not the madrasah head who explains how the system works. Meanwhile, education personnel who have duties related to information systems and operators actively participate in socialization to gain knowledge of the new system changes, followed by self-study through YouTube.

Empowerment of various sources greatly supports the implementation of the system in the madrasah. In order for MAN 1 Sarolangun teachers to be able to keep up with the development of information and technology in line with curriculum developments, the head of the madrasah invites experts in the field of curriculum systems to socialize and provide knowledge to madrasah teachers so that they can create and upload their own learning reports in accordance with the madrasah curriculum system.

DISCUSSION
Information system management at MAN 1 Batanghari

The management of information systems at MAN 1 Batanghari involves the head of the madrasah, teachers and employees. Starting with the plan to use the application to process madrasah data, the main purpose of using the application is to speed up and facilitate access to information. The main purpose of implementing an education management information system was stated by the head of MAN 1 Batanghari tohelp provide information to all madrasah personnel and to be a means for all members to participate in data management according to their respective sections. The application of information systems also increases the knowledge of teachers and students in using technology and applications.

The position of the management information system for MAN 1 Batanghari is very important because it not only helps the madrasah in general to get the title of thebest report, but also greatly helps teachers in carrying out career development. Students can also access information about general madrasah data more easily and quickly. The head of MAN 1 Batanghari has planned the implementation of the management information system to the maximum, although on the way it still encounters several obstacles. Operators as the spearhead of data entry and output have been placed according to their expertise and carry out their duties according to their duties and functions, although sometimes they have to help teachers who have

difficulty if they have to do their own data collection due to limited abilities or devices.

Information System Management at MAN 1 Merangin

In realizing the relevance of educators to the development of technology and the business world, MAN 1 Merangin organizes life skills education, spiritual skills, social skills, academic skills. These skills are an integral part of all local content subjects and self-development, namely handicrafts and computers. In addition to setting goals and analyzing madrasah needs, planning for the implementation of information systems includes madrasah plans to meet the needs of supporting facilities. The operator of MAN 1 Merangin revealed that currently what is needed by teachers and educators is socialization regarding the use of the application because they must have updated reports into the system. The madrasah head's plan to achieve proper facilities is structured by designing a madrasah budget to complete the lack of facilities needed.

Madrasahs also have advantages that can be utilized to support management information systems. The advantage of MAN 1 Merangin's position which is located in the center of Bangko district creates internet network stability so that the madrasah does not have internet problems. Madrasah has provided an internet network by installing wifi that can be connected to all computers and andoird teachers, staff, and students. Teachers who are registered in Simpatika also benefit because they have a high chance of being selected for teacher certification. It also encourages teachers to pay attention to *updating* data on EMIS and Simpatika.

Information System Management at MAN 1 Sarolangun

The management of information systems at MAN 1 Sarolangun is inseparable from the inspection carried out by the madrasah head. According to the head of madrasah, the EMIS program implemented in the madrasah is in accordance with the data collection standards in the system and as a leader he directly monitors the achievement of data collection with this system. And the use of the BOS management information system has also reached the target so that all BOS data, facilities, teachers, students, and educators have been connected to EMIS and Simpatika.

The weakness of MAN 1 Sarolangun in implementing the Emis and Simpatika applications is the limited infrastructure and network facilities. Although computers have been provided, not all can be used to access the application. In addition, the network at the madrasah is unstable even though wifi has been installed, sometimes the server is down and when the signal lights out, it is sometimes lost. The madrasah's advantage in implementing information systems is that it has operators who are experts in the field of technology and information so that physical damage to computers and application problems can be resolved and operators become easier to manage madrasah data with the two systems. One of the results of the assessment of the effectiveness of the implementation of management information systems at MAN 1 Sarolangun also shows that teachers whose names are recorded in Simpatika have a great chance of being included in the list of certification recipients

CONCLUSION

The management of information systems at State Aliyah Madrasahs in Jambi Province includes the stages of planning, organizing, mobilizing, controlling, coaching, and assessing:

At the planning stage, the purpose of implementing the MAN information system in Jambi Province is to assist the madrasah managerial process in managing information that is

useful for internal and external parties and increasing the knowledge of teachers, educators, and students. The application of information systems at MAN is in accordance with the conditions and needs of madrasah data collection.

At the organizing stage, the delegation of programs from the government to MAN managers in Jambi Province is not optimal, but the madrasah head seeks a division of tasks based on competence and IT capabilities so that the information system can be operated according to madrasah needs. All data in Sim Bos, Sim Sarpras, and Simpatika are directly connected to Emis.

At the mobilization stage, MANs in Jambi Province utilize existing facilities and the role of operators to optimize the use of Emis and Simpatika. Various steps were taken to implement the information system in the madrasah, ranging from socialization, operator briefing, direct practice by teachers, giving *rewards* and *punishments,* to self-study regarding application upgrades. The shortcomings found in the implementation are that MAN facilities have not been recorded as a whole in Sim Sarpras and students have not been directly involved in the utilization of Sim Bos.

At the control stage, MAN heads in Jambi province conduct surveys and direct supervision of operators to monitor the development and implementation of information systems. The head of the madrasah also coordinates directly with the operator to see the feasibility of the facilities and supervises the performance of staff at any time in the madrasah environment. So that the Sim really facilitates the flow of information about the condition of madrasah facilities, the need for BOS assistance, and assists the processing of grades by teachers.

Coaching to improve the implementation of information systems at MAN Jambi province is carried out through training activities, direct direction and guidance from the madrasah head to operators, inviting experts, self-study with YouTube, and tiered coordination. Tiered coordination from the madrasah head to the operator then the teacher or from the madrasah head to the teacher then the operator.

The assessment results show that the implementation of EMIS at MAN Jambi Province is in accordance with the standards while the implementation of Sim BOS has not yet reached the target. MAN's weaknesses lie in the availability of internet networks, lack of human resources, and facilities. The advantages of MAN are the adequate location of the madrasah in the middle of the city center and operators who are proficient in using technology. The advantage for teachers whose data has been entered into Simpatika has a greater chance of getting certification.

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