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**Implementation of EMIS 4.0 Application Management in Madrasah Education Data Collection to Support the Policy of the Ministry of Religion of the Republic of Indonesia at Tsanawiyah Madrasah Ma`Had Al-Zaytun, Gantar District, Indramayu**

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**Abstract**

Implementation of the Education Management Information System 4.0 at Madrasah Tsanawiyah Ma`had Al-Zaytun, Gantar District, Indramayu Regency, there are problems faced, namely the implementation of duties and responsibilities as an EMIS 4.0 operator, collection of student files (diplomas, family cards and certificates), internet network in work investigations, and difficulties in accessing the EMIS 4.0 application due to server errors. This research aims to determine the implementation of the EMIS 4.0 application policy in Madrasah Tsanawiyah Ma`had Al-Zaytun, supporting and inhibiting factors for implementing EMIS 4.0 in Madrasah Tsanawiyah Ma`had Al-Zaytun, and what efforts and strategies will be carried out by Madrasah Tsanawiyah Ma`had Al-Zaytun in implementing EMIS 4.0. The research method uses a qualitative approach with a descriptive-qualitative type. By collecting data through observation, interviews and documentation. The data source was taken using a purposive sampling technique to select 10 informants. The data analysis techniques used are data condensation, data presentation, and drawing conclusions. The results of this research indicate that the implementation of the Education Management Information System 4.0 at Madrasah Tsanawiyah Ma`had Al-Zaytun, Gantar District, Indramayu Regency is quite good. The strategies that will be carried out by Madrasah Tsanawiyah Ma`had Al-Zaytun in implementing EMIS 4.0. In July, namely graduating 9<sup>th</sup> grade students, raising 7<sup>th</sup> and 8<sup>th</sup> grade students, creating groups and inspiring students in groups and creating a new 7<sup>th</sup> grade EMIS database, July-August which is carried out with Computer-Based National Assessment Data Collection (ANBK) or Minimum Competency Assessment (AKM), August-September namely detailed 7<sup>th</sup> grade EMIS data entry, October the activity is updating the 9<sup>th</sup> grade EMIS data based on statement letters and files for Madrasah Examinations as well as PD verification and Madrasah Examination Data Base (PDUM), October-December Finalization of EMIS data, January-March completes data for class 8 and especially class 7, March-April focuses on EMIS class 9 and May-June final checks for class 7 and 8.

**Keywords:** *Policy Implementation, Management, Data Collection, EMIS 4.0 Application.*

**Introduction**

Technology and information as a basis for data collection have a very important role in supporting the achievement of educational goals. As in the body's metabolic system, data and information are like blood which enables a person to survive and carry out daily activities. If an educational institution does not receive quality data and information support, it will certainly experience obstacles and difficulties, especially in the strategic decision-making process. This situation ultimately results in the failure of educational goals. Therefore, educational institutions must have a good, precise and accurate data collection system in order to provide good quality services and as a basis for decision making.

Based on the Decree of the Minister of Religion (KMA) of the Republic of Indonesia Number 83 of 2022 concerning Education Data Management:

1. That in order to realize integrated planning, implementation, evaluation, development control and public services in the field of education, it needs to be supported by accurate, up-to-date, integrated and multi-use educational data, as well as managed carefully, integrated and sustainably;
2. That in order to realize education data as intended in letter a, it is necessary to establish education data management;

3. Whereas taking into account the considerations referred to in letter a, a Decree of the Minister of Religion regarding the Management of Education Data at the Ministry of Religion is necessary;

The Directorate of Madrasas and Religious Education (Mapenda), as one of the institutions under the Ministry of Religion which is responsible for the implementation of madrasa and school religious education, in its data collection has used an education management information system known as EMIS (Education Management Information System). The EMIS used within the Ministry of Religion contains: Dashboard, Institutions, Infrastructure, Students, Teachers and Education Personnel (Tendik), Study Groups, Monitoring and Confirmation.

EMIS is an information system that supports the administration and data collection of religious education in the Ministry of Religion area. EMIS is managed and applied directly by the Directorate of Madrasah and Islamic Religious Education in Public Schools according to needs. At the district level, especially in the Ministry of Religion of Indramayu Regency, EMIS was managed and applied by the Madrasah and Religious Education (MAPENDA) section until 2012. Based on Minister of Religion Regulation (PMA) Number 13 of 2012 concerning the Organization and Work Procedures of the Ministry of Religion Vertical Institutions, starting from 2013 until now, MAPENDA has been replaced by the Madrasah Education section (DIKMAD) as the person responsible for RA, MI, MTs, MA and MAK education, as well as the Islamic Religious Education section (PAIS) as the person responsible for religious education in public schools. The Minister of Religion Regulation (PMA) number 13 of 2012 article 462 paragraph 4 is as follows:

"The Islamic Religious Education Section as intended in Article 461 has the task of providing technical services and guidance, coaching and managing data and information in the field of Islamic religious education in PAUD, SD/SDLB, SMP/SMPLB, SMA/SMALB/SMK" This EMIS application is for madrasa student database which is directly connected to the central Ministry of Religion database. The data in this application is the basis for making policy activities within the Ministry of Religion. These include BOS Fund assistance, Exam Data, proposals for the Smart Indonesia Program and others. EMIS systems are used to organize large amounts of educational data and information that can be read, retrieved, processed, analyzed, presented and disseminated. The core of this definition is an educational management information system that organizes information data to be stored, managed, analyzed and used in educational decision making. The benefit of EMIS is that it makes it easier to find valid data about madrasas, Islamic boarding schools and higher education in Indonesia. According to Eti Rochaety et al. (2009:13), that an education management information system is a combination of human resources and information technology applications to select, store, process and retrieve data in order to support the educational decision-making process. PENDIS is an abbreviation of Islamic Education.

EMIS PENDIS is an information system developed by the ministry of religion to make it easier to input data for schools, Islamic boarding schools and Islamic higher education. Meanwhile, the aim of EMIS is to make it easier for schools or madrassas under the auspices of the ministry of religion to report their school developments. So far, the old system has been quite troublesome, especially to find out the latest developments and the latest data in madrasas throughout Indonesia. Madrasah Tsanawiyah Ma`had Al-Zaytun is a private madrasah under the auspices of the Indonesian Islamic Boarding School Foundation (YPI) whose address is in the Sandrem Block, Mekarjaya Village, Gantar District, Indramayu Regency. Based on survey results before the research in the 2022-2023 academic year period,

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the number of students registered at a total of 1937 students. Meanwhile, there are 90 teaching staff at this madrasah.

The objectives of the construction and development of EMIS within the Directorate General of Islamic Education include:

1. Provide data and information needed in formulating policies, planning education implementation, project development, budget preparation and decision making.
2. Provide and support leaders with the latest data needed to make more effective planning and decision making on a regional and national scale.
3. Help accelerate the implementation of regional autonomy by presenting data regionally (provincial and district/city).
4. Strengthen the ability of regional offices (provinces) and religious offices (districts/cities) to fulfill requests for data and information from higher officials or other parties.
5. Assess the implementation and achievement of educational goals in madrasas from the aspects of equity, quality, efficiency and effectiveness.

Regardless of the advantages and disadvantages of a system, EMIS is quite capable of providing an initial picture of the conditions occurring in the field. However, the facts in the field that researchers encountered, related to the obstacles faced in managing data collection with the previous EMIS application, were:

1. Filling in student data online has too many columns to fill in,
2. Frequent application maintenance occurs so that student data cannot be entered for several days,
3. Filling in data in the application and uploading files cannot be done at any time, it must be done in the middle of the night,
4. When there are many people accessing it during the day, the central server becomes slow,
5. In terms of time, for the old EMIS the time period is short and seems sudden (Source: Madrasah Tsanawiyah Ma'had Al-Zaytun, 2020).

With EMIS 4.0, the Ministry of Religion can easily find out quickly the number of students in a madrasah, the condition of facilities and infrastructure, the number of teaching staff in a madrasah, the graduation rate, and the ratio of teachers to students. EMIS provides field data from madrasas and Islamic religious education teachers so that the Ministry of Religion can use EMIS data as initial data and field data which is usually used as a basis for policy making. The use of EMIS 4.0 data in policy making within the Ministry of Religion has reached 80%.

Based on the phenomenon described above, the aim of this research is to analyze the implementation of Madrasah education data collection system management policies with the EMIS 4.0 Application at the Madrasah Tsanawiyah Ma'had Al-Zaytun, Gantar District, Indramayu Regency.

## Method

This study used descriptive qualitative method. According to Sugiyono (2016:9) the qualitative descriptive method is a research method based on postpositivist philosophy used to research the conditions of natural objects (as opposed to experiments) where the researcher is the key instrument. The data collection technique is carried out by triangulation (combination).

Qualitative descriptive research aims to describe, describe, explain, explain and answer in more detail the problems being studied by studying as closely as possible an individual, a

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group or an event. In qualitative research, humans are the research instrument and the written results are in the form of words or statements that correspond to the actual situation. The author uses this qualitative method as an instrument in research and analysis which is carried out continuously from the beginning of the research to data analysis. Direct observation of objects according to the scope of research and theory as support for research based on the scope of discussion.

## **Results and Discussion**

The management information system used in the Madrasah Tsanawiyah field is the Education Management Information System (EMIS 4.0) application. The EMIS 4.0 application is "a type of Islamic education data collection application developed by the Information Systems Subdivision, Planning and Information Systems Section, Secretariat General of Islamic Education (Central EMIS Pendis Team) to support the EMIS data validation process" which is collected from every data source. This application is used to provide services, especially to Islamic educational institutions, starting from institutional registration, updating institutional profiles, to institutional renewal.

Management of institutional data at Madrasah Tsanawiyah Ma`had Al-Zaytun, Gantar District, Indramayu Regency is carried out using the online-based EMIS 4.0 application. Madrasah Tsanawiyah Ma`had Al-Zaytun, which is at the same level as Junior High School (SMP), based on the analysis carried out by researchers, shows that EMIS 4.0 can be used to manage basic educational data which includes basic data on educators and education staff, student data, and data The facilities available at Islamic educational institutions range from madrasa education, Islamic boarding school education and Islamic boarding schools to state and private Islamic tertiary institutions.

Implementing policies regarding educational data management is important to achieve the goals of educational institutions. One of the policies in managing educational data is the decision issued by the Directorate General of Islamic Education No. 5974 of 2019 concerning data management and information systems. The data management contained in this decision is education data management based on the Education Management Information System or EMIS. The use of EMIS 4.0 in managing data at the Madrasah Tsanawiyah Ma`had Al-Zaytun institution provides its own benefits that are felt by operators and even Madrasahs, especially Madrasah Tsanawiyah Ma`had Al-Zaytun.

The application of EMIS 4.0 is very important as a tool for managing data and information needed to support the formulation and implementation of policies in the field of Islamic Education. Data is very basic for all schools. Therefore, the accuracy of data from one door such as EMIS must be carried out carefully and carefully, because data is only a source of information but also a source of policy. With this aim, updating data is an absolute thing that must be done, considering that the dynamics of education always change every semester or lesson. This activity is an effort to advance Islamic Religious Education in terms of management. At Madrasah Tsanawiyah Ma`had Al-Zaytun, the existence of EMIS 4.0 can provide good changes and benefits.

Making a policy decision must be based on at least four principles, namely, the principle of efficiency, flexibility, availability of alternatives, and the principle of constraints, namely that decision making must pay attention to the constraints that will be faced in the future. Policy making is an organization's effort to overcome existing problems. Every issue/problem that arises requires different treatment because the source of the problem is different.

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Data collection can be done by involving the homeroom teachers for grades 7, 8, and 9 by contacting the homeroom teachers. The files for data collection are SD/MI diplomas, family cards, and birth certificates. The results of the analysis show that the processing of EMIS data at Madrasah Tsanawiyah Ma'had Al-Zaytun, Gantar District, Indramayu Regency goes through several data selections first from the EMIS operator and assisted by administrative staff so that the information in the form of data is presented in a form that is easy to understand. Data collection for EMIS Ma'had Al-Zaytun uses the online-based EMIS 4.0 application. The data input process requires accuracy from the madrasa operator, therefore every student data that has been input into the computer must always be checked whether the data is correct and in accordance with the data provided by the student's parents or not. Madrasah Tsanawiyah Ma'had Al-Zaytun in inputting EMIS data, there are 3 types of forms in the application, namely excel forms, offline desktop forms, and online EMIS. The offline desktop and online EMIS forms cannot be accessed by everyone, only EMIS operators can open them.

The data that has been input at the end is the data storage process in the EMIS menu which is a confirmation process which indicates that the data entered is truly in accordance with the conditions of the relevant institution. In the process of storing EMIS data, the obstacles that are often faced are the length of storage, even failure of stored data caused by the central server and internet network.

Supporting factors for implementing the EMIS 4.0 data collection policy are the important contribution of the Madrasah leadership or head and an understanding of EMIS. The inhibiting factors include frequently forgetting the email of the head of the institution or operator, budget factors, student file collection factors, human resources, facilities and infrastructure, and network factors.

The efforts and strategies carried out by Madrasah Tsanawiyah Ma'had Al-Zaytun, so that the implementation of EMIS can run well is by collecting student files (KK, certificates and diplomas), holding training for operators, increasing discipline and also increasing the internet network.

The strategies carried out by Madrasah Tsanawiyah Ma'had Al-Zaytun in implementing the EMIS 4.0 application, namely in July, graduated 9th grade students, promoted 7th and 8th grade students, created groups and included students in groups and created a new 7th grade EMIS database, July-August data collection is carried out for the Computer-Based National Assessment (ANBK) or Minimum Competency Assessment (AKM), August-September, namely detailed 7th grade EMIS data entry, October the activity is updating the 9th grade EMIS data based on statement letters and files for the Madrasah Examination and verval PD and Madrasah Examination Data Base (PDUM), October-December Finalization of overall EMIS data, January-March completes data for class 8 and especially class 7, March-April focuses on EMIS class 9 and May-June final checks for class 7 and 8.

## Conclusion

The implementation of Education Management Information System 4.0 at Madrasah Tsanawiyah Ma'had Al-Zaytun is still not optimal. Supporting factors for implementing the EMIS 4.0 data collection policy are the important contribution of the Madrasah leadership or head and an understanding of EMIS. The inhibiting factors include frequently forgetting the email of the head of the institution or operator, budget factors, student file collection factors, human resources, facilities and infrastructure, and network factors. The efforts and strategies carried out by Madrasah Tsanawiyah Ma'had Al-Zaytun, so that the implementation of EMIS

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can run well is by collecting student files (KK, certificates and diplomas), holding training for operators, increasing discipline and also increasing the internet network.

The strategies carried out by Madrasah Tsanawiyah Ma`had Al-Zaytun in implementing the EMIS 4.0 application are in July graduating grade 9 students, increasing students in grades 7 and 8, creating groups and enrolling students in groups as well as creating a new EMIS grade 7 database, July-August data collection is carried out for the Computer-Based National Assessment (ANBK) or Minimum Competency Assessment (AKM), August-September, namely detailed entry of class 7 EMIS data, October the activity is updating class 9 EMIS data based on statement letters and files for the Madrasah Examination and verval PD and Madrasah Examination Data Base (PDUM), October-December Finalization of overall EMIS data, January-March completes data for class 8 and especially class 7, March-April focuses on EMIS class 9 and May-June final checks for class 7 and 8.

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