

MADRASAH REFORM ON FUND MANAGEMENT IN INDONESIA**^{1,*}Raharjo, ²Abdullah Faqih, ³Casmito and ⁴Firdaus Himawan Raharjo**¹UIN Walisongo Semarang, Indonesia²DirektoratJenderal Pendidikan Islam, Kementerian Agama Jakarta, Indonesia³Kementerian Agama Kabupaten Kendal, Jawa Tengah, Indonesia⁴Pascasarjana Universitas Negeri Yogyakarta, Indonesia**Received 20th February 2024; Accepted 25th March 2024; Published online 23rd April 2024**

Abstract

The digitalization of madrasah fund management creates difficulties in the adjustment process. This study aims to explain that madrasah experience obstacles in responding to the e-RKAM (electronic-based madrasah activity plan and budget) policy. This paper relies on mixed research because the data is in the form of narrative and numerical data, and then analyzed descriptively. This study found that: (1) The migration process for managing madrasah funds was carried out through multi-level technical guidance for a team of instructors at central, provincial and district levels. Then the district instructor team provides technical guidance and assistance to the madrasah team. (2) The madrasah team's response to the implementation of the electronic application system appeared in various forms of adaptation difficulties, although in the end it was well received, shown by achieving an average evaluation score of 93%. (3) The implications of the e-RKAM migration for improving madrasah fund management have resulted in increasing human resource competency and completing digital facilities and infrastructure.

Keywords: Digitalization of madrasah fund management, e-RKAM (electronic-based madrasah activity plan and budget), Technical guidance, madrasah team duties.

INTRODUCTION

Management of madrasah funds is a crucial aspect in ensuring the smoothness and sustainability of educational activities in madrasahs. Madrasah funding comes from various sources, including community donations, government funds, and assistance from non-governmental organizations. Management of madrasah funds, which has previously been carried out manually, often involves intensive administrative processes and requires high precision. In general, the madrasah treasurer will record every financial transaction, from receipt of donations to expenditure for madrasah operational needs in conventional financial books. Management of these funds requires extra detailed attention, and often takes quite a long time in recording and calculating (Aina & Bipath, 2020). The government policy regarding digitalization of education fund management has been responded to differently by a number of madrasahs. Many madrasahs have difficulty implementing digitalization through the implementation of the e-RKAM (electronic-based madrasah activity plan and budget) system. The digitalization program as an effort to simplify the education system has given rise to various new problems (Pabbajah, Jubba, Abdullah, Pabbajah, & Juhansar, 2021). The intensity of digitalization is increasingly forcing people to have digital competence. The difficulties faced by the community are due to the lack of supporting infrastructure. Apart from that, human resources who have not yet mastered digital literacy are one of the factors hindering digitalization. Thus, this article provides an explanation that the digitalization process needs to be balanced with human resource provision. So far, studies on madrasah BOS (Education Operational Costs) fund management tend to discuss three things.

First, the aim of BOS funds is to develop the quality of education, ease the burden on society regarding education costs, and create affordable and quality education services for all levels of society (Hartanto, Suherman, Warta, & Cepi Barlian, 2022; Shaturaev, 2021; Sparrow, Dartanto, & Hartwig, 2020). Second, the BOS fund management process includes planning, realization, and accountability or reporting (Dahlia Naz'aina, 2021; Haji, Lian, & Fitriani, 2020; Herman, Mulya, & Apriyanto, 2021). Third, controlling the management of BOS funds by the District BOS team (Herman *et al.*, 2021; Nindie, 2022; Santosa, Mihrajuddin, & Munastiwi, 2022). Of these three trends, it appears that electronic-based management of BOS funds is not expected to be more effective and efficient. Evidence includes that Kahfi, Sanusi, Hanafiah, & Rostini (2021) stated that even though the planning (RKAM/ madrasah activity plan and budget) obtained a score of 100% (very good), its monitoring and reporting reached a maximum score of 66.7%, it could not reach 100%. Next, the report on the use of BOS funds that went to the Ministry of Education and Culture in 2019 turned out to be only 53 percent, this is also very naive. Therefore, the Minister of Education and Culture emphasized the need for BOS fund reports to be carried out online (Sparrow *et al.*, 2020), so that the monitoring target and sending reports to the center can reach 100%. For this reason, the Ministry of Religion has also launched an electronic-based management of BOS madrasah funds which will be implemented starting in 2021. This paper aims to complement previous studies on how managing madrasah funds can improve the quality of services to students. In line with that, the questions in this research are: (1) How is the migration process for managing madrasah funds through e-RKAM (electronic-based madrasah activity plan and budget) put into practice? (2) How do madrasahs respond to the implementation of the electronic application system? and (3)

*Corresponding Author: *Raharjo*,
UIN Walisongo Semarang, Indonesia.

What are the implications of e-RKAM migration for improving madrasah fund management? Apart from mapping the problems experienced by madrasahs, these three questions also make it possible to answer general problems faced by madrasahs with the digitalization policy in all aspects of education. Up to now, managing madrasah funds which has been done manually seems slow. There are three main indicators of this slowness: (1) The preparation of the plans is done in a relaxed manner, it can take a few days, some are even left unfinished and then imitate the plans of other madrasahs; (2) Filling in the madrasah self-evaluation (EDM) and madrasah activity plan and budget (RKAM) is carried out with high flexibility, so as not to say whatever you like, without strict rules, which ultimately results in problems when preparing reports on the realization of activities and finances; (3) The monitoring and evaluation system is multi-level and takes a long time, because it has to go through the MORA (Ministry of Religious Affairs) BOS (School Operational Costs) team at district, provincial and central levels. This method will be changed and improved by MORA of the Republic of Indonesia through the REP-MEQR (Realizing Education's Promise - Madrasah Education Quality Reform) Project. This project aims to increase the effectiveness and efficiency of madrasah fund management. Effective means filling in EDM and e-RKAM data according to the template details, efficient means the process of managing BOS funds takes less time.

LITERATURE REVIEW

Digitalization of Education Management

Digitalization is the main characteristic of the information society civilization in the 21st century. The spread of information in this century has so rapidly affected various sectors of life, including education. Digitalization in education refers to the use of computers, mobile devices, the internet, software applications, and various types of digital technology (Kazakova, 2020). These devices and applications are used in various educational activities including managing educational financial administration (Offem & Ononiwu, 2020) which leads to improved student services. In a study, Kazakova (2020) said that digital technology is very necessary, but at the same time, it is necessary to consider several factors, including: institutional policies to support digital innovation, situational factors, and educational organization resource support. Nnorom & Okonkwo (2020) acknowledged that the formation of an information society and the use of technology in the educational context is still in an ongoing process, so that it still raises contradictions and serious problems both related to the competence of personnel and the readiness of infrastructure and equipment. In general, digitalization of education is used in two forms, namely outside schools in the form of community service management, such as information on student development (Rahmatullah, Mulyasa, Syahrani, Pongpalilu, & Putri, 2022), and inside schools. The digitalization of education in schools takes the form of school administration services and learning systems. School administration services can include financing management and administration of student and teacher attendance (Pugacheva *et al.*, 2020). Meanwhile, digitalization in the learning system can take the form of digitizing the curriculum, learning content, and learning processes (Sailer, Murböck, & Fischer, 2021). Digitalization of education requires adequate infrastructure support so that it can run as expected. The five infrastructures

that educational institutions must prepare are: e-Learning Platform (Yusuf, 2019), School Information System (SIS) (Bober, 2021), STEAM-Based Curriculum (Mengmeng, Xiantong, & Xinghua, 2019), Artificial Intelligence (AI) and Machine Learning (Lawlor, 2021), and Large Capacity Digital Devices (Ruiz-Palmero, Colomo-Magaña, Ríos-Ariza, & Gómez-García, 2020).

Management of Madrasah Funds

Madrasah funds come from the central government in the form of BOS (School Operational Cost) and BOSDA (School Operational Cost from Regional Governments) as well as DIPA (Budget Implementation List) for state madrasahs. BOS funds are provided by the government to: (1) increase student accessibility, (2) improve the quality of learning and fulfill SNP (National Education Standard), (3) increase the effectiveness of distance learning, and (4) prevent the spread of disease. Madrasah fund management is carried out by the madrasah fund management team, which consists of the person in charge and implementer. The person in charge is the head of the madrasah. The implementers are the expenditure treasurer, assistant treasurer, data processing operator, and one person from the madrasah committee (Martani, 2023). The role of madrasah administrative staff is very influential on the decision-making processes of problem-solving and team building (Ozek, Abasli, & Cemaloglu, 2021). Madrasah fund managers, in this study are called TIM (madrasah core team) or madrasah team consisting of the Madrasah Headmaster, treasurer, and assistant treasurer or data processing operator (Martani, 2023). Madrasah fund managers are tasked with: (1) verifying the amount of funds received according to the number of students, (2) carrying out data cut-off according to the specified schedule, (3) managing funds using the e-RKAM application, (4) planning the use of funds according to components and amounts, (5) announcing the amount of funds, (6) making periodic reports, (7) being responsible for irregularities in the use of funds, (8) providing services for public complaints, and (9) keeping proof of original expenditure. The use of madrasah funds is based on e-RKAM (electronic-based madrasah activity plan and budget) which has been prepared based on the priority scale of madrasah needs, especially to help fulfill SNP (National Education Standard) and the quality of student learning. These needs include: (1) learning activities, (2) extracurricular activities, (3) evaluation of learning and extracurricular activities, (4) activities to develop student potential, (5) professional development of teachers and education staff, as well as development of madrasah management, (6) regular honorarium payments, (7) maintenance of madrasah facilities and infrastructure, (8) library development, (9) activities for accepting new students, (10) introductory period for madrasah students, (11) madrasah management, (12) power subscriptions and services, (13) purchasing/maintaining multi-media learning tools, (14) purchasing/renting equipment to support the learning process in the new normal adaptation era, (15) purchasing/renting equipment to prevent the spread of Covid-19, and (16) other costs, if the allocation for previous activities has been fulfilled (Santosa *et al.*, 2022).

Improving the Quality of Fund Management

Management standards are one of the national education standards that regulate the planning, implementation and supervision of educational activities from the educational unit level to the national level, so that efficiency and effectiveness

in the implementation of education can be achieved. Management standards aim to direct schools/madrasahs to have effective, efficient, accountable and systematic governance to support teaching and learning activities within them (Tahim, Wijaya, & Hadijaya, 2023). Management of BOS (School Operational Cost) funds in madrasahs refers to technical instructions from the Ministry of Religion, including that BOS funds are managed by madrasahs by applying madrasah-based management principles including planning, management and supervision of programs in accordance with the conditions and needs of the madrasah (Arroyan & Subekti, 2021). One effort to improve the quality of madrasah BOS fund management is to provide Technical Guidance to BOS managers at the madrasah level. The aim is for BOS managers at the madrasah level to increase transparency and accountability in managing and reporting BOS in accordance with the latest regulations. Increasing the capacity and quality of BOS fund management can only be achieved if the madrasah BOS management team understands, implements and is guided by all regulations related to BOS fund management, so that it is able to have a positive impact on improving the quality of learning, both student output and outcomes (Santosa *et al.*, 2022). Management of madrasah BOS funds with e-RKAM (electronic-based madrasah activity plan and budget) has started in 2021. Director of KSKK (Curriculum, Facilities, Institutions and Student Affairs) Ministry of Religion explained that the e-RKAM system was started to be considered in 2018, the system was built in 2019, socialized in 2020, so that in 2021 it has been ready for operation. The aim is to increase the efficiency and effectiveness of BOS spending. A total of 12 provinces were provided with training on the e-RKAM system, namely Aceh, South Sumatra, Jakarta, Banten, West Java, Central Java, Yogyakarta, East Java, Bali, South Sulawesi, East Kalimantan and Gorontalo (Martani, 2023). With e-RKAM, all stakeholders are expected to be able to monitor the movement of BOS funds from planning to final use (Khoirohnissah, 2023). It is hoped that the e-RKAM application will become a better planning system, so that the Government's investment will have a positive impact on improving the quality of learning. e-RKAM is one of the Ministry of Religion's strategies to continue to improve the quality of madrasahs.

METHODS

This research is evaluative research (Amanov, 2023), because it looks at the final results of the implementation of component 1 of the REP-MEQR (Realizing Education's Promise - Madrasah Education Quality Reform) project, namely the implementation of the EDM (madrasah self-evaluation) and e-RKAM (electronic-based madrasah activity plan and budget) systems. This research can also be categorized as policy research (Wenger, 2022), because it is related to government policy, in this case the Ministry of Religion, in improving the quality of madrasah education. This research uses mixed research (Djafar, Yunus, DJ Pomalato, & Rasid, 2021), namely qualitative and quantitative. The qualitative is related to narrative data on the implementation of technical guidance on the implementation of the EDM and e-RKAM systems, and the competency of madrasah team in implementing the electronic application to prepare e-RKAM in their respective madrasahs. Meanwhile, the quantitative is related to the output of technical guidance activities from each personnel of madrasah team which shows the madrasah team's level of understanding of the technical guidance materials for implementing the EDM

and e-RKAM systems. There are three types of data collected in this research, namely: (1) the process of implementing technical guidance for implementing the EDM and e-RKAM systems; (2) the madrasah team's level of understanding of technical guidance materials; (3) madrasah team's competency in preparing e-RKAM with electronic applications. The research data was collected using documentation, observation and interview techniques. The documentation data for this research is in the form of instructor team data (TIP: provincial core team; and TIK: district/city core team), madrasah management data (TIM: madrasah core team) which is the target of the REP-MEQR project, technical guidance material for implementing the EDM system and e-RKAM, TIM's understanding score as a technical guidance participant, proof of preparation of EDM and e-RKAM from TIM. Observations were made to the TIM in participating in technical guidance and mentoring activities. Interviews were conducted with technical guidance participants, namely the madrasah team (TIM) and instructors (TIK). To the TIM, the data collected is related to the process of preparing EDM and e-RKAM independently. To TIK, the data collected is related to the guidance and assistance process carried out by their respective fostered TIM in completing the task of preparing real EDM and e-RKAM with electronic applications. The collected research data was analyzed using two techniques, namely qualitative and quantitative techniques (Djafar *et al.*, 2021). Non-numerical data, such as project policy documents regarding the process of technical guidance activities at each level, as well as EDM and e-RKAM reports from several TIMs, were analyzed qualitatively. The results of this analysis are used to answer problems 1 (technical guidance process) and 3 (final competency in preparing EDM and e-RKAM). Meanwhile, numerical data, namely the results of technical guidance evaluations in the form of comprehension and self-evaluation scores, were analyzed quantitatively descriptively to obtain an average score for absorption of technical guidance material. The results of the quantitative analysis are related to the second problem, namely the TIM's level of understanding of the technical guidance material.

RESULTS

Transformation in fund management from manual to electronic

The e-RKAM platform is a digital transformation that changes planning patterns from manual to electronic. This application opens up opportunities to manage madrasah funds (BOS funds and others) in a transparent and accountable manner. With this centralized application system, planning and reporting on the management of madrasah funds can be monitored in stages starting from the Madrasah Education Unit level, Regency/City Ministry of Religion Office, Provincial Ministry of Religion Regional Office to the Central Ministry of Religion. The use of this application is expected to reduce reporting bureaucracy and spending inefficiencies. The key to the success of implementing this digital transformation does not only lie in the quality of the application, but more importantly, it is greatly influenced by the success of the TIM (madrasah core team) in carrying out change management. This change is not easy, but it is a big challenge. Socialization, workshops, technical guidance and intensive assistance to the TIM are one of the progressive anticipatory efforts against the possible risk of failure in the e-RKAM digital transformation.

There are two applications used in managing madrasah funds, namely EDM (Madrasah Self-Evaluation) and e-RKAM (electronic-based Madrasah Activity Plan and Budget). EDM consists of 5 aspects, namely (a) aspects of discipline of madrasah residents, (b) aspects of self-development of teachers and education staff, (c) aspects of preparation, implementation and assessment of the learning process, (d) aspects of the use of learning materials, and (e) aspects of financing planning. The fifth EDM aspect (financing planning) through the electronic application is connected (linked) with e-RKAM. Therefore, the preparation of madrasah activity plans and budgets must be in-line with the reported EDM. Funds entering the madrasah are managed in accordance with the list of activities in the e-RKAM template. The understanding, creativity and cohesiveness of the TIM consisting of the madrasa head, treasurer and operator as assistant treasurer really determines the effectiveness and efficiency of managing madrasa funds. Each activity and its allocation of funds is initially prepared by the treasurer and/or operator, then ratified or validated by the madrasa head. This process is carried out for all activities and allocation of funds until the remaining funds are 0 (zero) rupiah.

The application of policies in preparing EDM and e-RKAM electronically is not instructed instantly, but through a long process. Bearing in mind that this is a transformation from the preparation of EDM and RKAM which was previously done manually. This process begins with the selection of the core team at each level, namely the national core team (TIN), provincial core team (TIP), and district/city core team (TIK). TIN has the duty and responsibility to provide training and Technical Guidance on the Implementation of EDM and e-RKAM nationally to TIP. TIP has the duty and responsibility to provide training and technical guidance on the implementation of EDM and e-RKAM at the provincial level to TIK. TIK has the duty and responsibility to provide training and technical guidance as well as assistance in preparing EDM and e-RKAM to TIMs (madrasah core teams) from target madrasas at the district/city level. Target madrasas are madrasas that have been mapped and designated nationally as targets for the REP-MEQR project according to the stages in each district/city. Training and Technical Guidance on the Implementation of EDM and e-RKAM is carried out online (synchronous and asynchronous) using the LMS (Learning Management System) determined by the PMU (Project Management Unit). The assistance to the TIM is carried out face to face by TIK and assisted by TIP.

Increasing competency of the madrasah core team (TIM)

The instructor team at each level is required to take part in technical training and guidance. The participation of prospective instructors (TIN, TIP, and TIK) is a requirement for graduation as an instructor who will then receive their respective duties, responsibilities and rights at each level. Thus, active involvement in technical guidance activities is a necessity, resulting in adequate competence to provide training and technical guidance in the preparation of EDM and e-RKAM at lower levels. The active involvement of the madrasah team or madrasah core team (TIM) in technical guidance activities for the implementation of EDM and e-RKAM is an internal responsibility as managers of the madrasah where they devote themselves. Their competence in preparing EDM and RKAM with electronic applications will determine the quality of the madrasah being managed. In

several cases, the transformation of EDM and RKAM preparation from manual to electronic is not only different in the form of application, but the template has also changed. The reality in the field is that TIMs consisting of madrasah heads, treasurers and operators have to make adjustments to the new template. The TIM's level of understanding of the EDM and e-RKAM technical guidance material is taken from the score for each technical guidance material, the instrument of which has been prepared by the central administration staff. There are 10 materials in the EDM and e-RKAM technical guidance. For each material, one or more evaluation instruments are prepared. All instrument scoring ranges from 0 to 100. Data was taken by sampling from 4 districts in Central Java, namely Pati, Kendal, Pemalang and Pekalongan. From Pati Regency, 1 group was taken, namely group B which included 13 madrasas. Because each madrasah has 3 TIM, namely the head, treasurer and operator staff, there were 39 participants from Pati. From Kendal, 1 group was taken, namely group B consisting of 14 madrasas, meaning there were 42 participants. From Pemalang, 1 group with 9 madrasas was taken, meaning there were 27 participants. From Pekalongan, 1 group was taken, namely group B consisting of 13 madrasas, meaning there were 39 participants. By taking the evaluation score for each technical guidance material, the average score for each district group is obtained as follows:

Table 1. TIM's average score in understanding EDM and e-RKAM technical guidance material

District Average Score	
Pati	87.23
Kendal	92.42
Pemalang	97.30
Pekalongan	96.36

The scores for the four data groups show above 85. This means the participant's level of understanding is above 85% or very good. The total sample taken in collecting this quantitative research data was 147 participants. The following is data on the average score of participants from each technical guidance material.

Table 2. Average score of participants in understanding EDM and e-RKAM technical guidance material

Average Score Material	
Topic 1 feedback	94.49
Topic 2 feedback	94.49
Topic 3 feedback	89.63
Topic 4 feedback	94.49
Final self-assessment of topics 4-5	89.41
Topic feedback 5	92.87
Topic feedback 6	90.01
Final assignment topic 6	98.70
Topic feedback 7	90.54
Final self-assessment of topic 7	86.76
Topic feedback 8	90.88
Final assignment topic 8	92.46
Topic feedback 10	100
Topic assignment 10	100
FINAL AVERAGE	93.20

Overall, the final average score of 93.20 shows that the EDM and e-RKAM technical guidance participants' understanding is included in the very good category. The madrasah team as the spearhead of the implementation of the REP-MEQR project must be truly competent, so that the coaching process is not limited to conceptual understanding through technical

guidance, but must reach a skilled level through face-to-face mentoring. The implementation of assistance in implementing EDM and e-RKAM for TIM requires the skills of instructors/TIK in each district/city. The number of TIKs in each district/city varies according to the portion of the number of target madrasahs. For example, in Pemalang Regency, 1 TIK supports 28 madrasahs; Pekalongan City, 1 TIK accompanies 8 madrasahs, which in several activities joins Pekalongan Regency which has 2 TIKs with 63 target madrasahs; Kendal Regency has 4 TIKs with 43 target madrasahs; and Pati Regency has 7 TIKs with 155 target madrasahs. The proportion of TIK and target madrasahs in each Regency/City varies, because there is TIK appointed (decreed) by the Central Ministry of Religion plus TIK appointed by each Regency/City Ministry of Religion taking into account the difficulty of reaching the target madrasahs. As material for implementing technical guidance and mentoring, PMU has prepared a guide for implementing e-RKAM (Feng, Zhang, & Li, 2022), which is being implemented nationally. The idea of the density of accompanying material for e-RKAM preparation which must be completed within a day for each madrasah in accordance with central regulations (Chang *et al.*, 2020) is one of the reasons why TIK has prepared simpler technical guidelines for implementing e-RKAM and even includes examples, as has been done by TIK Pemalang Regency and Kendal Regency. Some TIKs even asked the TIM to print the technical guidelines and examples they had prepared, as well as dividing the task of preparing the EDM among madrasah personnel. Actually, the preparation of real EDM and e-RKAM is the final task of technical guidance in accordance with the e-RKAM implementation guidelines that have been provided. Even though, the TIM appeared to be skilled in operating the EDM and e-RKAM 'training' applications when attending technical guidance, the reality in the field when mentoring was carried out, not all TIM had completed their EDM. If the EDM has not been completed (especially part E, namely the madrasah financing element), then you cannot link to compile the e-RKAM. The reality in the field is that a day's time to provide assistance is still not enough, so the assistance activities are continued virtually. The TIKs provide consultations on the preparation of e-RKAM outside of activity hours, until the e-RKAM in the madrasah they support is completely finished with a balance of 0 (zero) rupiah. In order to increase the effectiveness of mentoring activities, there are several creative implementations carried out by the district instructor team (TIK). For example, in Pemalang District assisted madrasahs in preparing e-RKAM in the second half of the schedule, carried out by gathering 2 madrasah teams in one place. In this way, each madrasah team gets the opportunity to consult directly with the instructor for 2 days. Apart from that, the two madrasahs can communicate horizontally, thereby motivating them to immediately complete the task. In Kendal District, 4 instructors provide joint assistance, with each of the 4 madrasahs they support, where each instructor accompanies 1 team of the madrasahs they support. This strategy has very positive benefits because the 4 instructors can combine and equalize their competencies, and the 4 TIM can exchange experiences so that they are motivated to speed up the completion of e-RKAM preparation.

Effectiveness and efficiency of fund management

Preparing Madrasah Self-Evaluations (EDM), either manually or electronically, is not much different. The instrument is the same, consisting of 5 aspects, namely: a) discipline of

madrasah residents; b) self-development of teachers and education personnel; c) Preparation, implementation and assessment of the learning process; d) use of learning materials; e) financing planning. Each aspect has a number of indicators which the madrasah management team (TIM) just needs to fill in according to the conditions of the madrasah. The fields are in the form of levels 1 to 4, followed by descriptions and supporting data evidence. Level 1 indicates the lowest level with a score of 1. For example, in aspect B4, administrative staff have never attended training to improve their skills. Level 4 is the highest level with a score of 4. For example, in aspect B1 the madrasah head actively participates in training. Madrasah TIM competency in preparing EDM electronically does not experience many obstacles. They even felt helped in preparing the EDM because the template was provided. If a mistake occurs, there is no need to repeat typing, but just re-edit. The obstacle is that the preparation of the EDM requires team cohesion and agreement.

The process of preparing e-RKAM in mentoring activities turned out to be the biggest obstacle compared to other obstacles. Not all TIMs have the ability to understand e-RKAM creation. They have to do many things, including: (1) preparing activity plans in accordance with the EDM results; (2) dividing the BOS funds received at each stage according to the needs of the EDM results; (3) determine the accounts in each planned budget line; (4) plan and spend the BOS funds received so that the remaining Rp. 0,- (zero rupiah); and (5) understand each e-RKAM application menu. These obstacles require TIK skills and creativity in simplifying technical instructions and direct practice when assisting in the preparation of e-RKAM. This was done, for example, by TIK Kendal District in assisting the implementation of EDM and e-RKAM to the madrasah team so that they can complete their tasks quickly. Technical guidance on the e-RKAM application for madrasah teams is the first step to instilling new understanding that changes the mindset from a manual system to an electronic system. The initial step is with a training application, followed up with a real application. Each madrasah team gets a username and password from the Central Ministry of Religion. Transferring skills from the Practice application to the real application, should be easy to do automatically. However, in reality on the ground, many madrasah teams require intensive assistance, one day's face-to-face meeting is not enough. The reason for 'forgetting' was experienced by several madrasah team personnel who felt they were old. For this reason, repeated guidance in the form of assistance in filling out the EDM and e-RKAM step by step was carried out patiently by the TIK/instructor team. Preparing e-RKAM requires high precision. For several madrasah teams, to achieve the final target of preparing e-RKAM with a zero Rupiah balance, it requires several reviews, and involves an online mentoring process outside of formal mentoring time. This kind of process is carried out until the final target is perfect for the entire madrasah team.

DISCUSSION

Activity Direction

This electronic madrasah fund management system is a breakthrough for the Government, in this case the Ministry of Religion, towards better quality madrasahs. Through the REP-MEQR project, with funding assistance from the World Bank, the final output and outcomes of madrasah fund management

are determined. The madrasa management team, as the spearhead of the development and improvement of SBM (school-based management) at the education unit level (Siddiq, 2023), really got a breath of fresh air with this project. Basically, each madrasah has developed milestones towards a quality madrasah. Despite their various limitations, now these madrasas (project target madrasas) receive direction, guidance, guidance and even assistance towards these outcomes. Madrasah managers are challenged and motivated to improve their competence in order to improve the quality of their madrasah. The internal motivation of madrasa developers is shown by their active involvement in technical guidance activities and assistance in implementing the e-RKAM application (Pettersson, 2021). Their competency in preparing EDM and RKAM manually, has been updated with electronic applications, so it is not surprising that the average score for their technical guidance output shows results that are close to perfect (100%). Likewise, their outcomes in preparing real EDM and e-RKAM show the level of effectiveness and efficiency in managing madrasa funds as expected by the government. However, the process of increasing competency that each madrasah team goes through is intricately integrated with the creativity of the instructors in each district/city.

The increase in the quality of madrasah fund management

The process of technical guidance and assistance in implementing the e-RKAM application is carried out in stages from the national level to the madrasah level. This activity was initially designed in face-to-face form, considering that in 2018 there were no symptoms of the corona outbreak. Therefore, a team of instructors was established at each level, namely the national core team (TIN), provincial core team (TIP) and district/city core team (TIK). The composition of the instructor team varies so that they can exchange information and experience. The variety of instructor teams consists of academics (lecturers and students), Madrasah Supervisors, Madrasah Heads, teaching staff as Madrasah BOS Treasurers, and Education Personnel as Ministry of Religion data operators. These instructors are equipped with understanding and skills regarding the application of the e-RKAM application, who in turn provide technical guidance to madrasa teams in smaller groups, and face-to-face assistance to one instructor for one madrasa team. In the context of School-Based Management, the madrasah team consisting of the Madrasah Head, BOS Treasurer and data operator is the party most responsible for managing madrasah funding sources (Vanbuel & Van den Branden, 2020). This responsibility is implemented in the preparation of EDM and RKAM, which previously had been done manually. That is the baseline (behavior entry) they have before following the technical guidance for this EDM and e-RKAM electronic application. They already have a strong basic understanding of the preparation of EDM and RKAM, supported by the school leader transformational leadership (Febriantina, Karyaningsih, Victorynie, Faslah, & Ramadhini, 2021), so that the implementation of this government project (REP-MEQR) is a breath of fresh air to improve their competencies through electronic applications.

Follow-up

BOS funds are disbursed twice a year. During this period of technical guidance and e-RKAM assistance, the madrasa team has completed preparing e-RKAM with BOS funds in the first semester (January-June), they must continue preparing e-

RKAM with BOS funds in the second semester (July-December), independently. Apart from that, they will also manage other sources of funds, namely performance funding assistance and affirmations from the government in the e-RKAM application. The assistance period for the preparation of e-RKAM as per the REP-MEQR project program was completed at the end of June. Meanwhile, the madrasa team's task continues to manage the next madrasa fund (Lina, Robbaniyah, Citraningsih, & Sari, 2023). To carry out guidance activities, PMU has reshuffled the instructor team by carrying out new recruitment. Of course, it is hoped that further guidance will be in line with what is already underway. Furthermore, the madrasah will carry out a project program in the next component, namely component-2. Implementation of a learning outcomes assessment system in grade 4 MI (Islamic Primary School) nationally; component-3 of continuous professional development for teachers and education staff; and component 4 strengthening the quality development support system (Anwar, 2022).

CONCLUSION AND RECOMMENDATIONS

Implementation of component 1 of the REP-MEQR project, namely the implementation of the e-RKAM system, has had a positive influence on the madrasa team in its efforts to improve the quality of madrasa fund management. This influence is visible when they take part in technical guidance activities. The spirit of change in their attitude to be actively involved in technical guidance has an impact on the ease of absorbing knowledge and skills in applying the new e-RKAM system which is a migration from a manual to an electronic system. The transfer of competency from the practice e-RKAM application in technical guidance activities to the real e-RKAM application as an independent task for the madrasah team, which is reviewed and completed during mentoring activities, is carried out seriously. Even though some of the madrasa TIM are stumbling and require repeated explanations and guidance, they are still enthusiastic about achieving the final goal of completing this independent task, namely compiling e-RKAM with an electronic application, which is their responsibility as part of the madrasah management. In an effort to improve the quality of school management, tug-of-war often occurs in determining which components should be developed first. This is because MBS (School Based Management) has several components, namely: (1) curriculum and learning, (2) students, (3) educators and education staff, (4) financing, (5) facilities and infrastructure, (6) school and community relations, and (7) school culture and environment. The results of this research show that financing management has an important role to develop at the start. With effective and efficient financing management, all components of the madrasah can move towards better quality which will lead to improved service quality and student achievement. This is also effective in developing eight national education standards which include: content standards, process standards, graduate competency standards, standards for educators and education personnel, facilities and infrastructure standards, management standards, financing standards, and education assessment standards. In this case, the combination of management standards and financing standards is a starting point in moving other standards and leads to an increase in the quality of graduate competency standards. In the development of human civilization in the era of industrial revolution 4.0, the world of education must adapt to the use of information and communication technology. In this era of fast-paced, accurate

information, madrasah development teams should also have high knowledge in using mobile platforms and devices. For this reason, the REP-MEQR project changes the mindset of a manual system to an electronic application system by using online communication to become a fertilizer that fosters the potential of the madrasah team in an effort to improve the quality of the madrasah more effectively and efficiently. This study is limited in the form of a sampling study, not a population study. The sampling was taken in several districts/cities in Central Java. This sampling is quite representative, because the condition of the participants, namely the madrasa TIM in all target madrasas in Indonesia, is relatively homogeneous. However, future research would certainly be better if it used a larger sample. The next limitation is that this study takes place in the first half of the disbursement of BOS funds. In this research, the time span of this study is sufficient because it corresponds to the implementation period of project activities in component-1. However, it is very possible for future research to find out the independence of the madrasa team in managing madrasa funds both from BOS which will be disbursed in the second half and from other sources.

REFERENCES

- Aina, A. Y., & Bipath, K. (2020). School financial management: Insights for decision making in public primary schools. *South African Journal of Education*, 40(4), 1–9. <https://doi.org/10.15700/saje.v40n4a1756>
- Amanov, A. (2023). METHODOLOGY FOR STUDY AND ANALYSIS OF EVALUATION CRITERIA. *Журнал Иностраных Языков и Лингвистики*, 5(5 SE-). Retrieved from <https://phys-tech.jdpu.uz/index.php/fll/article/view/8182>
- Anwar, K. (2022). Financial Management Concepts in Islamic Educational Institution. *Jan*, 5(2), 1–23. Retrieved from <https://lppmstianusa.com/ejurnal/index.php/jurnal/article/view/642/432>
- Arroyan, L., & Subekti, N. (2021). Utilization of the Education Management Information System (EMIS) as a Decision Making Means in the Institutional Section of the Regional Office of the Ministry of Religion, Yogyakarta Special Region. *As-Sabiqun*, 3(2), 202–215. <https://doi.org/10.36088/assabiqun.v3i2.1451>
- Bober, M. J. (2021). School Information Systems and Their Effects on School Operations and Culture. *Journal of Research on Computing in Education*. Retrieved from https://www.researchgate.net/publication/234752883_School_Information_Systems_and_Their_Effects_on_School_Operations_and_Culture
- Chang, V., Baudier, P., Zhang, H., Xu, Q., Zhang, J., & Arami, M. (2020). How Blockchain can impact financial services – The overview, challenges and recommendations from expert interviewees. *Technological Forecasting and Social Change*, 158(April), 120166. <https://doi.org/10.1016/j.techfore.2020.120166>
- Dahlia Naz'aina, M. K. (2021). *Master Program of Management Science, Economics and Business Faculty, University of Malikussaleh, Aceh*. Retrieved from [https://download.garuda.kemdikbud.go.id/article.php?article=2997832&val=27023&title=Analysis of Stakeholder Perception On Transparency Accountability And Effectivity In School Operational Assistance Funds Management For Junior High School Level In North A](https://download.garuda.kemdikbud.go.id/article.php?article=2997832&val=27023&title=Analysis%20of%20Stakeholder%20Perception%20On%20Transparency%20Accountability%20And%20Effectivity%20In%20School%20Operational%20Assistance%20Funds%20Management%20For%20Junior%20High%20School%20Level%20In%20North%20A)
- Djafar, H., Yunus, R., DJ Pomalato, S. W., & Rasid, R. (2021). Qualitative and Quantitative Paradigm Constellation In Educational Research Methodology. *International Journal of Educational Research & Social Sciences*, 2(2), 339–345. <https://doi.org/10.51601/ijersc.v2i2.70>
- Febriantina, S., Karyaningsih, P. D., Victorynie, I., Faslah, R., & Ramadhini, N. (2021). Impact of School Principal's Transformational Leadership and Teacher's Organizational Commitment on their Citizenship Behaviour. *MOJEM: Malaysian Online Journal of Educational Management*, 9(2), 18–28. Retrieved from <https://mojom.um.edu.my/index.php/MOJEM/article/view/29356>
- Feng, S., Zhang, R., & Li, G. (2022). Environmental decentralization, digital finance and green technology innovation. *Structural Change and Economic Dynamics*, 61, 70–83. <https://doi.org/10.1016/j.strueco.2022.02.008>
- Haji, S., Lian, B., & Fitriani, Y. (2020). an Evaluation of School Operational Fund Program. *International Journal of Educational Review*, 2(2), 212–221. <https://doi.org/10.33369/ijer.v2i2.11001>
- Hartanto, H., Suherman, D., Warta, W., & Cepi Barlian, U. (2022). Learning System Management To Improve The Quality Of Learning Chemistry On Students Of State 8 Sma Negeri 8 Bekasi And Taman Students High School Of Bekasi. *International Journal of Educational Research & Social Sciences*, 3(5), 1927–1934. <https://doi.org/10.51601/ijersc.v3i5.428>
- Herman, M., Mulya, C., & Apriyanto, S. (2021). the Implementation of Education Financing Through Bos Fund Management in Improving Education Quality. *Jurnal Inspiratif Pendidikan*, 10(1), 90–101. Retrieved from <https://journal.uin-alauddin.ac.id/index.php/Inspiratif-Pendidikan/article/view/16608>
- Kahfi, I., Sanusi, A., Hanafiah, H., & Rostini, D. (2021). Education Financing Management in an Effort to Improve the Quality of Learning in Madrasah Aliyah in Bandung District: Studies at MA Al Mua'wanah Majalaya and MA Al Jawahir Soreang. *Journal of Social Science*, 2(5), 637–654. <https://doi.org/10.46799/jss.v2i5.221>
- Kazakova, E. I. (2020). Digital Transformation of Pedagogical Education. *Yaroslavl Pedagogical Bulletin*, 112(1), 8–14. <https://doi.org/10.20323/1813-145x-2020-1-112-8-14>
- Khoirohnissah, D. (2023). *Digital Transformation in Indonesian Religious Education: A Case Study of Madrasah Management at Kemenag Sleman*. 1(2). Retrieved from <https://ejournal.uin-suka.ac.id/tarbiyah/jiemr/article/view/7138/3155>
- Lawlor, B. (2021). Artificial Intelligence and Machine Learning. *Chemistry International*, 43(1), 8–13. <https://doi.org/10.1515/CI-2021-0103>
- Lina, R., Robbaniyah, Q., Citraningsih, D., & Sari, I. (2023). The Role of the Ministry of Religious Affairs in Facing the Challenges of Islamic Education in the Digital Age. *Educan; Jurnal Pendidikan Islam*, 7(2), 125–134. <https://doi.org/10.21111/educan.v7i2.10047>
- Martani, E. (2023). Improving the Quality of Madrasah Education through Madrasah Resource Management. *Dawuh Guru: Jurnal Pendidikan MI/SD*, 3(1), 25–38. <https://doi.org/10.35878/guru.v3i1.481>
- Mengmeng, Z., Xiantong, Y., & Xinghua, W. (2019). Construction of STEAM Curriculum Model and Case Design in Kindergarten. *American Journal of Educational Research*, 7(7), 485–490. <https://doi.org/10.12691/EDUCATION-7-7-8>
- Nindie, A. (2022). LEADERSHIP MANAGEMENT OF SCHOOL PRINCIPLES: A Case Study of Public

- Elementary Schools in Bogor Regency. *AKADEMIK: Jurnal Mahasiswa Humanis*, 2(1), 19–28. <https://doi.org/10.37481/jmh.v2i1.465>
- Nnorom, S. U., & Okonkwo, E. C. (2020). Adequate Funding Of Educational Institutions Proselytizes Effective Planning: View Point Of An Educational Administration. *IOSR Journal Of Humanities And Social Science (IOSR-JHSS)*, 25(6), 34–38. <https://doi.org/10.9790/0837-2506103438>
- Offem, O. O., & Ononiwu, P. N. (2020). Educational administration and exploring new trends in the funding strategies for improving entrepreneurship education for sustainable national development. *African Journal of Educational Management ...*, 1. Retrieved from <https://ajemates.org/index.php/ajemates/article/view/8%0Ahttps://ajemates.org/index.php/ajemates/article/download/8/7>
- Ozek, B. Y., Abasli, K., & Cemaloglu, N. (2021). Stereotypes of School Administrators in Decision-making: A Phenomenological Analysis. *MOJEM: Malaysian Online Journal of Educational Management*, 9(3), 59–77. Retrieved from <https://mojem.um.edu.my/index.php/MOJEM/article/view/30572>
- Pabbajah, M., Jubba, H., Abdullah, I., Pabbajah, M. T. H., & Juhansar. (2021). From the scriptural to the virtual: Indonesian engineering students responses to the digitalization of Islamic education. *Teaching Theology & Religion*, 24(2), 122–130. <https://doi.org/10.1111/TETH.12581>
- Pettersson, F. (2021). Understanding digitalization and educational change in school by means of activity theory and the levels of learning concept. *Education and Information Technologies*, 26(1), 187–204. <https://doi.org/10.1007/s10639-020-10239-8>
- Pugacheva, N., Kirillova, T., Kirillova, O., Luchinina, A., Korolyuk, I., & Lunev, A. (2020). Digital paradigm in educational management: The case of construction education based on emerging technologies. *International Journal of Emerging Technologies in Learning*, 15(13), 96–115. <https://doi.org/10.3991/IJET.V15I13.14663>
- Rahmatullah, A. S., Mulyasa, E., Syahrani, S., Pongpalilu, F., & Putri, R. E. (2022). Digital era 4.0. *Linguistics and Culture Review*, 6, 89–107. <https://doi.org/10.21744/lingcure.v6ns3.2064>
- Ruiz-Palmero, J., Colomo-Magaña, E., Ríos-Ariza, J. M., & Gómez-García, M. (2020). Big Data in Education: Perception of Training Advisors on Its Use in the Educational System. *Social Sciences 2020*, Vol. 9, Page 53, 9(4), 53. <https://doi.org/10.3390/SOCSCI9040053>
- Sailer, M., Murböck, J., & Fischer, F. (2021). Digital learning in schools: What does it take beyond digital technology? *Teaching and Teacher Education*, 103, 103346. <https://doi.org/10.1016/J.TATE.2021.103346>
- Santosa, S., Mihrajuddin, A., & Munastiwi, E. (2022). The Implementation of School Financial Management System in Managing the BOS Fund. *Al-Idarah: Jurnal Kependidikan Islam*, 12(2), 145–155. <https://doi.org/10.24042/alidarah.v12i2.10905>
- Shaturaev, J. (2021). Financing and Management of Islamic (Madrasah) Education in Indonesia. *Zeszyty Naukowe Politechniki Częstochowskiej Zarządzanie*, 42(1), 57–65. <https://doi.org/10.17512/znpcz.2021.2.05>
- Siddiq, A. (2023). Reforms on Islamic Education in Indonesia (A Case of Pesantren, Madrasah, and Islamic University). *Shibghoh: Prosiding National Tarbiyah*, 1(1), 12. Retrieved from <https://ejournal.unida.gontor.ac.id/index.php/shibghoh/article/view/9220>
- Sparrow, R., Dartanto, T., & Hartwig, R. (2020). Indonesia Under the New Normal: Challenges and the Way Ahead. *Bulletin of Indonesian Economic Studies*, 56(3), 269–299. <https://doi.org/10.1080/00074918.2020.1854079>
- Tahim, A., Wijaya, C., & Hadijaya, Y. (2023). Management of School Operational Assistance in Increasing the Quality of Education. *EDUTECH: Journal of Education And Technology*, 6(4), 516–525. <https://doi.org/10.29062/edu.v6i4.545>
- Vanbuel, M., & Van den Branden, K. (2020). Each primary school a school-based language policy? The impact of the school context on policy implementation. *Language and Education*, 35(1), 42–59. <https://doi.org/10.1080/09500782.2020.1803352>
- Wenger, G. C. (2022). *The Research Relationship: Practice and Politics in Social Policy Research*. Retrieved from https://books.google.co.id/books?hl=en&lr=&id=wcFdEAAAQBAJ&oi=fnd&pg=PT11&dq=policy+research++in+education&ots=r81ueWHPsq&sig=L91HZwGYualx2TgZRJEwde43ftE&redir_esc=y#v=onepage&q=policy_research_in_education&f=false
- Yusuf, H. (2019). Educational Management in the age of Digitality and Social Media: Exploring the utilisation of Digitality and Social Media to improve the Management of Further Education from a methodological perspective. (University of Bolton). <https://doi.org/10.13140/RG.2.2.14293.24803>
