



Transformation of Madrasah Education Management: The Implementation of Performance-Based Planning and Budgeting Policies

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ABSTRACT

Purpose – This study aims to examine the role of Madrasah Self-Evaluation (EDM) and the electronic Madrasah Work and Budget Plan (e-RKAM) in transforming madrasah education management through the implementation of performance-based planning and budgeting policies. The study is grounded in the growing demand for data-driven, transparent, and accountable governance to improve the quality of madrasah education.

Methodology – This research employed a descriptive-analytical qualitative approach. Data were collected through document analysis of policy regulations, technical guidelines, and implementation reports related to EDM and e-RKAM, as well as a review of relevant literature on education management and performance-based budgeting. The analysis focused on examining the integration process, implementation mechanisms, and managerial implications of EDM and e-RKAM within madrasah governance.

Findings – The integration of EDM and e-RKAM establishes a structured management cycle that links quality evaluation, planning, budgeting, implementation, monitoring, and accountability. EDM provides objective data on madrasah performance through measurable indicators, while e-RKAM ensures that budgeting decisions align with identified priority needs. This integration contributes to greater transparency, accountability, and more effective resource utilization. However, challenges remain, particularly in terms of human resource capacity, digital literacy, and infrastructure readiness.

Novelty – This study offers a conceptual contribution by presenting EDM and e-RKAM as an integrated performance-based management framework rather than as separate administrative instruments. It highlights how the alignment between self-evaluation data and electronic budgeting systems can drive a paradigm shift in madrasah governance.

Significance – The results of this study are beneficial for madrasah leaders, policymakers, education administrators, and stakeholders within the Ministry of Religious Affairs as a reference for strengthening data-driven decision-making and improving the quality and accountability of madrasah education management.

Keywords: Digital transformation; e-RKAM; EDM; Madrasah education management; Madrasah quality.

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I. Introduction

Madrasahs, as Islamic educational institutions, have experienced significant growth in both quantity and their role in human resource development (Kania & Bonyah, 2023; Septianingsih et al., 2025). Within the context of the national education system, madrasahs are now expected to meet governance standards equivalent to those of general schools and even serve as models of education that integrate Islamic values with modern academic standards (Dookurong Dilor, 2025; Mardiana & Muzayyanah, 2025). These demands require new managerial approaches that are no longer based solely on intuition, but rather on systematic, data-driven, and performance-based practices.

Madrasah education management refers to the process of managing human resources, facilities and infrastructure, finances, and academic activities to achieve the goals of Islamic education (Pecson et al., 2025; Rasidi et al., 2025). From a theoretical perspective, Islamic education management is grounded in principles of trust (amanah), accountability, public benefit (maslahah), and efficient use of resources. These principles align closely with modern management values such as (Veraksa et al., 2020) (Cahyanti & Dharmawan, 2025). In general, madrasah education management encompasses the functions of planning, organizing, implementing, supervising, and evaluating. Evaluation is a crucial component because it determines subsequent development strategies (Bundock et al., 2023; Liamruk et al., 2025). Without accurate evaluation, madrasah development programs risk being misaligned with actual needs in the field.

For many years, madrasah management practices have operated within a complex context. Planning has often been conducted without structured quality data, budgeting has not been sufficiently aligned with priority needs, and reporting has largely remained manual, making it vulnerable to inaccuracies (Pani Dias, 2024). Decision-making at the madrasah level has frequently relied on experience or tradition rather than objective evaluation results. This condition has led to a mismatch between educational needs and implemented programs, resulting in uneven development of madrasah quality.

In response to these challenges, the Ministry of Religious Affairs introduced two strategic instruments, Madrasah Self-Evaluation (EDM) and e-RKAM (Gulo, 2024; Umar & Gumelar, 2023). EDM identifies the quality conditions of madrasahs based on national education standards and quality culture indicators. It is an instrument used by madrasahs to assess their own performance based on internal quality aspects. This process involves the madrasah's head, teachers, educational staff, and the quality assurance team. EDM assesses quality indicators based on the eight National Education Standards, encompassing context, input, process, output, and quality culture.

The results of EDM are presented in the form of a Madrasah Quality Performance Score (Skor Kinerja Pencapaian Mutu/SKPM), which reflects the factual condition of the madrasah on a measurable scale (Hilali, 2023). SKPM serves as the basis for quality improvement planning, including the determination of priority programs requiring budgetary intervention. As an evaluation tool, EDM bridges the gap between madrasah needs and financing policies. Consequently, planning processes are no longer subjective but are grounded in evaluation data (Hussein et al., 2024; Larbi et al., 2024).

In addition to EDM, e-RKAM was introduced as an electronic-based planning and budgeting system that facilitates the preparation of realistic, effective, and needs-based work plans. e-RKAM is an electronic platform that supports work planning, budgeting, financial administration, and reporting (Meirina & Dewi, 2024; Wasif et al., 2024). The system was developed to ensure that madrasah budget utilization is transparent, systematic, and compliant with regulations. Through e-RKAM, every activity must be linked to needs identified through EDM and associated performance indicators.

e-RKAM supports the concept of performance-based budgeting. In this model, budgeting is not merely about spending allocated funds, but about ensuring that every unit of expenditure produces outputs with a tangible impact on educational quality (Hariri et al., 2025; Kania & Kusumah, 2025). The system also facilitates monitoring and evaluation, as all processes are digitally recorded—from fund disbursement and utilization to reporting.

The interconnection between EDM and e-RKAM lies at the core of madrasah management transformation. EDM provides needs-based data, while e-RKAM serves as the mechanism for executing those needs. As a result, planning and budgeting processes no longer operate in isolation but follow a data-driven pathway (Rahyubi, 2022; Suhayat et al., 2023). This integrated framework can be described as follows: the madrasah conducts a self-evaluation (EDM); EDM generates SKPM, identifying strengths and weaknesses; SKPM becomes the basis for formulating priority programs; these priorities are incorporated into e-RKAM with corresponding budget allocations; funds are utilized for quality improvement activities; and outputs are reported and evaluated. All of these processes reflect modern management principles and the foundational values of Islamic education management.

Both instruments are designed to function as a unified education management cycle: EDM, SKPM, planning, budgeting, implementation, monitoring, and accountability. This article examines how EDM and e-RKAM establish a more structured framework for madrasah education management, the challenges encountered in their implementation, and how both instruments contribute to the transformation of madrasah quality.

2. Methods

2.1. Type and Research Approach

This study employs a policy analysis and implementation practice approach, focusing on examining the concepts, mechanisms, and implications of implementing Madrasah Self-Evaluation (EDM) and the electronic Madrasah Work and Budget Plan (e-RKAM) within madrasah governance. A descriptive-analytical approach is applied to systematically describe the roles, functions, and integration of these two instruments without manipulating research variables.

2.2. Data Sources

The data used in this study were obtained from:

- Official policy documents issued by the Ministry of Religious Affairs related to EDM and e-RKAM;
- Technical guidelines and regulatory documents concerning madrasah planning, budgeting, and quality assurance;
- Scholarly literature, including books, journal articles, and academic publications relevant to madrasah education management, performance-based management, and digital transformation in education.

2.3. Data Collection Techniques

Data were collected through a documentation study and a literature review. The documentation study examined policies, guidelines, and operational systems related to EDM and e-RKAM. The literature review was conducted to strengthen the theoretical framework and conceptual analysis of madrasah education management and performance-based budgeting.

2.4. Data Analysis Techniques

Data analysis was conducted using a descriptive-analytical method, following these stages:

- Identifying the concepts and operational mechanisms of EDM and e-RKAM;
- Analyzing the relationship between EDM outcomes (Madrasah Quality Performance Score/SKPM) and planning and budgeting processes within e-RKAM;
- Examining the impact of EDM and e-RKAM implementation on madrasah governance;

d. Systematically organizing the research findings in accordance with the focus of the study.

2.5. Data Validity

Data validity was ensured through source triangulation by comparing policy documents, technical guidelines, and relevant scholarly literature. This approach was employed to ensure information consistency and the accuracy of the analysis regarding the implementation of EDM and e-RKAM.

3. Results and Discussion

3.1. Results

3.1.1. The Function of EDM as an Instrument for Mapping Madrasah Quality

Table 1 - Functions and Outputs of EDM in Madrasah Quality Management

Aspect	Description of Results
Primary function of EDM	A self-evaluation instrument to systematically map the quality condition of madrasahs
Basis of assessment	National Education Standards and quality culture indicators
Main output	Madrasah Quality Performance Score (SKPM)
Information generated	Strengths and weaknesses of the madrasah in terms of input, process, and output
Managerial implications	Serves as the basis for determining priority madrasah development programs
Impact on planning	Data-driven planning rather than assumption-based planning

The analysis shows that EDM functions as the primary instrument for systematically and measurably mapping madrasah quality conditions. Through the EDM instrument, madrasahs can identify quality achievements and shortcomings using indicators from the National Education Standards and quality culture. The main output of EDM, namely the Madrasah Quality Performance Score (SKPM), provides a factual overview of the madrasah's internal condition across input, process, and output. The resulting SKPM becomes a key document that reflects the madrasah's priority needs. With the availability of these data, madrasah development planning is no longer based on assumptions but instead on structured internal evaluation results.

3.1.2. The Role of e-RKAM in Performance-Based Planning and Budgeting

Table 2 - The Role of e-RKAM in Performance-Based Planning and Budgeting

Component	Implementation Results
System function	Digital platform for planning, budgeting, and reporting
Linkage with EDM	Programs and budgets must refer to EDM results
Budgeting model	Performance-based budgeting
Management characteristics	Integrated, orderly administration, and well-documented
Transparency	Budgets and realizations are easily traceable
Accountability	Supports monitoring, evaluation, and auditing

The findings indicate that e-RKAM serves as a system that integrates program planning, budgeting, financial administration, and madrasah financial reporting in a digital format. Every program planned within e-RKAM must be linked to needs identified through EDM. e-RKAM promotes the implementation of performance-based budgeting, whereby budget allocations are formulated based on priority programs and quality achievement indicators. This system also enables more orderly, transparent, and traceable financial recording and reporting processes.

3.1.3. Integration Pattern of EDM and e-RKAM in the Madrasah Management Cycle

Table 3 - Integration Pattern of EDM and e-RKAM in the Madrasah Management Cycle

Cycle Stage	Role of EDM	Role of e-RKAM
Quality evaluation	Assesses the actual condition of the madrasah based on quality indicators and National Education Standards	Provides an initial platform for data-driven planning

Cycle Stage	Role of EDM	Role of e-RKAM
Priority setting	Provides SKPM as the basis for identifying problems and priority needs	Facilitates the determination of priority programs within the planning system
Program planning	Directs madrasah development needs based on evaluation results	Develops work programs and activity plans based on SKPM
Budgeting	Serves as the basis for justifying budget needs according to the quality map	Allocates budgets according to program priorities and performance indicators
Implementation	Serves as a reference for quality targets and program achievement indicators	Records activity realization and budget utilization systematically
Monitoring & reporting	Acts as a benchmark for quality achievement and the basis for continuous evaluation	Provides digital reports for monitoring, evaluation, and accountability

The findings reveal a clear pattern of integration between EDM and e-RKAM within the madrasah education management cycle. EDM functions as a source of needs-based data, while e-RKAM serves as the instrument for policy execution through planning and budgeting.

This integration forms a management flow as follows: quality evaluation through EDM, priority setting based on SKPM, program and budget formulation within e-RKAM, implementation of activities, and system-based reporting and evaluation. This pattern strengthens the linkage between quality evaluation and budget utilization.

3.1.4. Impact of Implementation on Madrasah Governance

The analysis indicates that the implementation of EDM and e-RKAM has led to improved orderliness in madrasah governance. Planning processes have become more focused, budgeting is more accountable, and reporting is more transparent. Furthermore, the use of digital systems has strengthened monitoring and supervision mechanisms by madrasah principals and relevant stakeholders.

Table 4 - Impact of EDM and e-RKAM Implementation on Madrasah Governance

Governance Aspect	Condition Before Implementation	Impact After Implementation of EDM and e-RKAM
Planning	Planning was not fully based on data and quality needs	Planning is more focused and based on quality evaluation results (EDM)
Budgeting	Budget allocation was weakly linked to quality priorities	Budgeting is more accountable and aligned with priority programs
Reporting	Reporting was largely manual and prone to data inaccuracies	Reporting is more transparent, orderly, and digitally documented
Monitoring	Monitoring was limited and unsystematic	Monitoring is stronger and continuous through the e-RKAM system
Supervision	Supervision relied on manual reports	Supervision is more effective by madrasah principals and stakeholders
Madrasah governance	Governance tended to be administrative in nature	Governance is more systematic, transparent, and performance-based

3.2. Discussion

3.2.1 The Role of EDM in Building an Evaluation Culture

The implementation of the *Evaluasi Diri Madrasah* (EDM) has fundamentally transformed evaluation practices in madrasahs, shifting them from sporadic, administrative-oriented activities toward a systematic, continuous, and quality-driven evaluation culture. Prior to the adoption of EDM, evaluation processes were largely fragmented, lacked standardized indicators, and were predominantly conducted to fulfill external compliance and reporting requirements (Perepelkina & Kondratov, 2021). The findings of this study confirm that EDM functions as a structured self-evaluation instrument aligned

with the National Education Standards and quality culture indicators, thereby providing madrasahs with an objective and comprehensive framework for assessing their actual quality conditions.

Through the application of EDM, evaluation is institutionalized as an integral component of the madrasah management cycle rather than a one-time or incidental activity (Roqib, 2023). The generation of the *Madrasah Quality Performance Score* (SKPM) enables madrasahs to systematically identify strengths, weaknesses, and priority improvement areas across the input, process, and output dimensions. This evidence-based evaluation mechanism fosters a reflective organizational mindset, in which institutional performance is analyzed using empirical data rather than assumptions or subjective perceptions. Consequently, evaluation evolves from a purely administrative function into a strategic learning process that supports informed decision-making and continuous quality improvement.

Furthermore, EDM contributes significantly to the development of a reflective and adaptive organizational culture within madrasahs. The annual self-evaluation process requires institutions not only to measure performance achievements but also to critically examine the underlying constraints, causal factors, and enabling conditions influencing those outcomes (Kania et al., 2024). Such reflective practices foster organizational learning, enabling madrasahs to internalize lessons from past performance cycles and translate them into more responsive, contextually relevant improvement strategies. This adaptive capacity reduces institutional stagnation and strengthens the commitment to sustainable quality enhancement.

Another critical dimension of EDM in cultivating an evaluation culture lies in its participatory orientation. The implementation of EDM actively involves teachers, educational personnel, and relevant internal stakeholders in the evaluation process (Sholikah, Jelita, et al., 2022). This collective approach shifts evaluation from being the exclusive responsibility of the madrasah principal toward a shared institutional endeavor. By broadening participation, EDM enhances transparency, collegial collaboration, and shared accountability for quality outcomes. Moreover, the active engagement of teachers and staff increases their understanding of institutional quality standards and performance targets, thereby strengthening their professional commitment to continuous improvement initiatives.

In this context, EDM functions not merely as a technical evaluation instrument but as a cultural mechanism that embeds evaluative practices as a routine and valued component of madrasah governance. The consistent and systematic use of EDM reinforces accountability, promotes openness to feedback, and supports the development of a performance-oriented management mindset. Ultimately, the role of EDM in building an evaluation culture constitutes a critical foundation for the effective integration of evaluation results into planning, budgeting, and broader madrasah quality management systems.

3.2.2 e-RKAM as an Instrument of Modern Financial Governance

The transition from manual financial administration to the *electronic Rencana Kerja dan Anggaran Madrasah* (e-RKAM) represents a substantive transformation in madrasah financial governance. Prior to e-RKAM implementation, financial management practices were characterized by fragmented documentation, limited traceability of program expenditures, and a high risk of recording errors and reporting delays (Setiawan & Rosa, 2023). The findings of this study demonstrate that e-RKAM addresses these weaknesses by institutionalizing a digital system that integrates planning, budgeting, financial administration, and reporting within a single, orderly, and auditable platform.

As evidenced in the results, e-RKAM enables program planning processes that are more transparent and traceable, as each activity and budget allocation must be explicitly linked to quality needs identified through EDM. This linkage ensures that financial decisions are no longer detached from educational priorities but are directly aligned with measurable quality indicators. Furthermore, the automated nature of financial recording and reporting within e-RKAM significantly reduces the risk of human error, enhances data accuracy, and supports timely submission of accountability reports.

Another important contribution of e-RKAM lies in its capacity to facilitate real-time monitoring and supervision. Madrasah principals and relevant supervisors are able to track program implementation and budget realization continuously, thereby strengthening internal control mechanisms. In this regard, e-RKAM operationalizes the principles of accountability (*amanah*) and transparency (*shafafiyah*), which constitute core values in Islamic education management. Thus, e-RKAM not only modernizes financial administration but also reinforces ethical governance practices within madrasahs.

3.2.3 Synchronization of EDM and e-RKAM in the Quality Management Cycle

The integration of EDM and e-RKAM establishes a coherent and structured quality management cycle within madrasahs. The findings indicate that EDM functions as the primary source of diagnostic data, identifying quality gaps and priority needs, while e-RKAM serves as the operational instrument for translating these findings into concrete programs and budget allocations. This synchronization ensures that quality improvement initiatives are grounded in objective evaluation results rather than subjective preferences or ad hoc decision-making.

Through this integrated mechanism, madrasahs are compelled to allocate resources to address empirically identified weaknesses (Angraini et al., 2024). For instance, low scores in the learning process dimension necessitate prioritizing teacher professional development programs, while deficiencies in facilities and infrastructure direct budget allocations toward rehabilitation or procurement. Similarly, suboptimal management performance, as reflected in EDM indicators, justifies the implementation of leadership and managerial capacity-building programs for madrasah principals.

As a result, budgeting becomes more targeted, measurable, and needs-based. The alignment between quality evaluation and financial planning strengthens the relevance of expenditures and increases the likelihood that budget utilization will contribute directly to quality improvement outcomes. This integrated cycle enhances policy coherence at the institutional level and reinforces the principle of performance-based management within madrasahs.

3.2.4 Challenges of Implementation in Madrasahs

Despite the positive impacts identified in this study, the implementation of EDM and e-RKAM continues to encounter several structural and cultural challenges. One major issue concerns disparities in human resource capacity (Wibawa et al., 2025). Not all madrasahs possess personnel—such as operators, treasurers, or principals—with adequate digital literacy and technical competence to optimally manage EDM and e-RKAM systems. This limitation affects the quality of data input and the effectiveness of system utilization.

In addition, uneven digital infrastructure remains a significant barrier, particularly for madrasahs located in remote or underdeveloped areas. Limited internet connectivity and insufficient access to digital devices constrain the consistent use of online systems, thereby undermining the intended efficiency gains of EDM and e-RKAM.

Organizational culture also presents a challenge. Some members of the madrasah community continue to perceive EDM as an additional administrative burden rather than as a strategic tool for quality improvement (Semeraro et al., 2020). This perception can reduce commitment to accurate data entry and reflective evaluation practices. Consequently, data quality issues may arise, and inaccurate or incomplete data inputs into EDM may lead to misaligned planning and budgeting decisions within e-RKAM.

Addressing these challenges requires a comprehensive strategy that includes systematic training programs, continuous technical mentoring, infrastructure support, and strong leadership commitment at the madrasah level. Without these supporting measures, the potential of EDM and e-RKAM to enhance governance and quality management may not be fully realized.

3.2.5 Implications for Madrasah Education Policy

The integration of EDM and e-RKAM carries significant implications for madrasah education policy at both institutional and governmental levels. The findings suggest that EDM-generated data can serve as a reliable basis for provincial and district authorities to map madrasah quality conditions and allocate educational assistance more equitably and effectively(Nopriana et al., 2025) . By using standardized quality data, policy interventions can be targeted to madrasahs and quality dimensions that genuinely require support.

Moreover, the alignment between quality evaluation and budgeting enables the Ministry of Religious Affairs to assess budget effectiveness and program impact at the national level. This evidence-based approach strengthens policy accountability and enhances the strategic use of public funds in madrasah education.

At the institutional level, madrasahs benefit from clearer, more measurable development directions, as planning and budgeting are explicitly guided by quality performance indicators. In this sense, EDM and e-RKAM function not merely as technical or administrative tools but as policy instruments that reshape the operational logic of madrasah education governance (Suhayat et al., 2023). By embedding data-driven evaluation and performance-based budgeting into routine management practices, these systems help transform the madrasah bureaucracy into a more transparent, accountable, and quality-oriented education system.

4. Conclusions

EDM and e-RKAM are two instruments that play a strategic role in transforming madrasah education management. EDM provides an accurate quality map, while e-RKAM serves as a tool for planning and managing budgets based on identified needs. Their integration creates a management cycle that is more effective, measurable, and transparent.

From the perspective of Islamic education management, the implementation of EDM and e-RKAM reflects the values of amanah (trustworthiness) and accountability. However, successful implementation is determined not only by the instruments themselves but also by the readiness of human resources, leadership commitment, and the availability of adequate digital infrastructure. With continuous strengthening and support, EDM and e-RKAM have significant potential to become a new foundation for modern, data-driven, and quality-oriented madrasah education management

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Conflict of Interest

The authors declare no conflicts of interest.

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