



Driving Institutional Quality: Evaluating the Implementation of Internal Quality Assurance Models in Rural State Madrasahs

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ABSTRACT

Keywords:

Digital Quality Assurance, Instructional Leadership, Madrasa Management, Digital Literacy, Educational Governance

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This study aims to evaluate how implementing an Internal Quality Assurance System (SPMI) contributes to improving institutional quality in a rural state madrasah. Educational quality disparities between urban and peripheral regions remain a persistent challenge, particularly for Islamic educational institutions that often face limitations in infrastructure, management capacity, and access to resources. Strengthening internal quality governance in madrasahs is therefore essential to ensure equitable and sustainable educational development. This research employs a qualitative descriptive case study conducted at a madrasah. Data were collected through participant observation, in-depth interviews with key informants, and documentation analysis, and analyzed using an interactive model of data reduction, data display, and conclusion verification. The findings reveal three major patterns. First, integrating a digital-based SPMI system improves transparency and enables real-time monitoring of institutional performance. Second, instructional leadership plays a crucial role in translating national curriculum policies into locally relevant pedagogical practices through mentoring and clinical supervision. Third, the madrasa demonstrates organizational responsiveness to students' digital behavioral trends through structured digital literacy and ethical guidance programs. These findings contribute to the development of an adaptive quality management model for madrasahs and recommend strengthening digital governance and leadership capacity in similar educational institutions.

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INTRODUCTION

Educational quality is the fundamental pillar of modern societal advancement and national resilience (Suryaningsih et al., 2025). Investigating

quality assurance within Islamic educational institutions, such as madrasahs, is vital because these entities are responsible for cultivating a generation that is both intellectually competent and morally grounded. Theoretically, educational institutions with substandard quality management fail to produce graduates who are competitive in the global labor market, thereby burdening society's socio-economic fabric. Empirical evidence from various developing nations indicates that standardized educational systems correlate significantly with higher Human Development Indices. Therefore, ensuring that every educational unit, particularly those in rural or developing regions, functions within a robust quality assurance framework is a sociological necessity (Yeboah & Boasiako, 2024). In conclusion, the effectiveness of educational management at the junior secondary level is a crucial determinant of human resource sustainability, underscoring the importance of this study for future social stability.

A fundamental challenge facing the global educational landscape is the persistent quality disparity between urban centers and rural or suburban peripheries. Society frequently encounters a reality in which graduates from institutions in less developed regions lack the competencies of their urban counterparts, a gap driven by weak internal quality control mechanisms (Iwara, 2025). In the Indonesian context, this challenge is intensified in religious educational institutions, where resource constraints often collide with the rigorous demands of the National Education Standards (Mufarokah et al., 2025; Rohman et al., 2024). This issue fosters public skepticism regarding the ability of state madrasahs in rural areas to compete academically. Failure to implement adaptive quality assurance models leads to stagnant curricular innovation and declining teacher performance (Buabeng & Amo-Darko, 2025). Without data-driven, systematic managerial interventions, this quality gap will continue to widen, ultimately marginalizing students in peripheral areas' rights to equitable, high-quality educational services.

Within the educational landscape of developing regions, State Islamic Junior High Schools (MTs) play a central role as the primary choice for communities in suburban and rural areas. However, this strategic position is not yet fully supported by a consolidated, independent, and sustainable internal quality assurance system. Geographically and administratively, institutions in these buffer zones often face difficulties in synchronizing central policies with the realities of certified staff availability and limited infrastructural support (Faryadi, 2024; Gale et al., 2025). Although these institutions have formally adopted national quality frameworks, implementation often regresses into mere administrative formality for bureaucratic compliance rather than becoming a transformative organizational culture (Frimawan & Andini, 2026). Consequently, there is an urgent need to evaluate how quality assurance models operate within

ecosystems characterized by accessibility challenges and resource disparities. Understanding the managerial dynamics in this specific typology of madrasah provides a realistic overview of how quality policies can be accommodated at the grassroots level without losing religious essence.

Current literature indicates that global scholars have extensively explored the discourse on Internal Quality Assurance Systems (IQAS). The majority of previous studies, particularly those conducted by educational management experts in developed nations, tend to focus on implementing Total Quality Management (TQM) in higher education or in elite secondary schools in metropolitan areas (Dallaseh, 2026). Several researchers in Indonesia have also documented the success of IQAS in improving school accreditation scores through strong instructional leadership (Marini & Zakiah, 2025). However, much of this literature positions quality assurance as a static variable influenced primarily by financial availability and physical facilities. Previous research has focused heavily on descriptive compliance with government standards, without examining in depth how the process of quality internalization occurs at the micro-organizational level within Islamic institutions (Kejora et al., 2025; Mehmood et al., 2023; Zhou et al., 2023). This leaves a significant gap in understanding how organizational values interact with technocratic quality instruments.

Despite the growth of educational quality research, a significant gap persists in evaluating quality models in state madrasahs in developing or rural districts. A primary weakness of previous research is the neglect of socio-geographical factors and the unique characteristics of madrasahs as institutions with dual-curriculum mandates (Latif, 2025; Teles et al., 2023). Earlier scholars have seldom addressed how limited accessibility and competency disparities in rural areas affect the "PPEPP" cycle (Setting, Implementation, Evaluation, Control, and Improvement) (Ahmad et al., 2025). Consequently, recommendations from prior studies are often generic and difficult to apply for madrasah managers facing different structural constraints (Rosita et al., 2025). The current literature's inability to explain the mechanisms of quality assurance adaptation under resource-constrained conditions is a serious issue. Thus, this study aims to fill that void by critically evaluating the implementation of a quality model within a specific and challenging institutional setting.

The novelty of this research lies in its approach that integrates quality management evaluation with the local context of rural madrasahs. Unlike conventional studies that view output solely in terms of accreditation scores, this research offers a new perspective on "adaptive quality culture," in which quality instruments are adapted to reflect regional socio-cultural capacities and challenges (Eshete & Kassahun, 2025). This study explores how institutions in

peripheral areas use limitations as a driver for unique managerial innovation. Addressing this research is directly linked to developing a quality assurance model that is inclusive and not urban-biased. By mapping madrasah self-evaluation processes, this study contributes to the theory of Islamic educational management by examining the alignment of national standards with local realities. The theoretical innovation produced will serve as an important reference for policymakers to design evaluation instruments that are relevant and do not merely impose an administrative burden on rural institutions.

Based on the aforementioned background, the research problem is formulated around a central question: to what extent does the implementation of the internal quality assurance model in rural state madrasahs substantially drive institutional quality improvement amidst environmental constraints? This problem encompasses uncertainty regarding the effectiveness of the self-evaluation cycle in detecting academic and non-academic weaknesses within the madrasah. Furthermore, there is a lack of clarity concerning the primary factors that hinder state madrasahs in rural areas from achieving expected excellence standards. Without clear answers to these questions, quality improvement efforts in madrasahs will remain a trial-and-error process without measurable direction. This research aims to identify these structural and operational barriers and to evaluate whether the current model is responsive enough to changing global demands or whether a re-engineering of the quality management system is required at the basic Islamic education level.

This research argues that the success of quality assurance in rural madrasahs is determined not merely by compliance with standard documents, but rather by the ability of madrasah leadership to transform quality instruments into a collective consciousness among staff. The primary contribution of this study is the provision of an original evaluative framework regarding IQAS implementation in regions with challenging geographical characteristics, which have been underrepresented in international literature. In practice, this study provides concrete recommendations for madrasah principals and educational supervisors to optimize existing resources and achieve competitive quality standards. Theoretically, the findings will enrich the field of educational management by demonstrating that a successful quality assurance model can navigate local contexts without compromising universal standards. Consequently, this research is beneficial not only for the specific research object but also for similar institutions in various developing countries facing the dilemma between resource constraints and demands for educational quality.

RESEARCH METHODS

This research employs a qualitative approach, specifically a descriptive case study design, to explore the intricacies of educational management

(Gretschel et al., 2023). This design was selected for its ability to facilitate a deep, contextual exploration of social phenomena in a real-life setting (Robinson & Williams, 2024). By adopting a qualitative lens, the researcher can capture the nuanced meanings behind human interactions and organizational behaviors that numerical data alone cannot adequately represent. According to Gretschel et al. (2023), such a design is essential for understanding the complexity of individual experiences and institutional processes. It provides a flexible yet rigorous framework for interpreting the qualitative data gathered throughout the study, ensuring that the findings reflect the actual dynamics and multifaceted nature of the educational environment under investigation.

The research is conducted explicitly at MTsN 1 Kotawaringin Timur, located in Sampit, Central Kalimantan. This location was chosen purposively because the institution serves as a representative model of regional educational development and possesses organizational characteristics closely aligned with it. As Strijker et al. (2020) highlights, selecting a case site based on its theoretical and practical relevance is crucial for maintaining a robust study. Furthermore, the accessibility of data and the openness of the school administration provide a conducive environment for gathering comprehensive primary information. This logistical advantage enables a more sustained and detailed engagement with the school's internal quality systems and leadership structures, ensuring that the gathered insights are grounded and highly relevant to the regional context.

To ensure a comprehensive understanding of the research problem, data are collected through a series of integrated qualitative techniques. This multi-method approach includes participant observation, which enables the researcher to monitor daily school activities and organizational routines in the natural setting (Li & Zhang, 2022). Additionally, in-depth interviews are conducted with key informants, including the school principal, teachers, and administrative staff, to gather primary perspectives and subjective insights into institutional management. These oral accounts are further supplemented by a thorough documentation study that includes the analysis of official archives, strategic policy documents, and internal school evaluation reports. By triangulating these various data collection methods, the researcher can develop a more layered and accurate representation of the phenomena, ensuring that no significant aspect of the institutional dynamics is overlooked.

The gathered data are analyzed inductively using an interactive model comprising three concurrent streams of activity. Initially, the process involves data reduction, in which the researcher meticulously sorts, focuses on, and simplifies raw field notes and interview transcripts into more manageable segments. This is followed by data display, which involves organizing information into systematic narratives or visual matrices to facilitate clearer

understanding of emerging patterns and themes. Finally, conclusion drawing and verification are conducted to synthesize the findings into a coherent theoretical explanation. According to Lim (2025), this iterative process ensures that the analysis remains grounded in the data while enabling rigorous verification. This approach helps transform complex information into meaningful academic insights on operational effectiveness.

To ensure the credibility and overall trustworthiness of the research findings, several rigorous validation techniques are implemented throughout the study. The research primarily employs source triangulation by comparing information obtained from different categories of informants, as well as technique triangulation by verifying interview data against observational notes and official school documents. These measures are designed to minimize researcher bias and enhance the reliability of the conclusions. Furthermore, the researcher engages in prolonged engagement at MTsN 1 Kotawaringin Timur to establish strong rapport with the subjects and to ensure a deep understanding of the local context. As argued by Li & Zhang, (2022) and Meydan & Akkaş (2024), these validity checks are vital for establishing the "truth value" of qualitative research, ensuring that the final results are a credible reflection of reality.

RESULTS AND DISCUSSION

Result

The Integration of Digitally-Based Internal Quality Assurance Systems (SPMI)

Digital-based Internal Quality Assurance System (SPMI) at a madrasah is a systematic transition from conventional, paper-based administrative oversight to an integrated digital ecosystem. This framework utilizes cloud-based platforms to synchronize school self-evaluation instruments, pedagogical planning, and academic monitoring into a centralized dashboard. Operationally, this system serves as a real-time diagnostic tool, enabling management to identify instructional gaps and administrative bottlenecks instantly. By digitizing quality indicators, the institution has redefined "quality" not merely as a retrospective annual report, but as a dynamic, data-driven process that ensures institutional accountability.

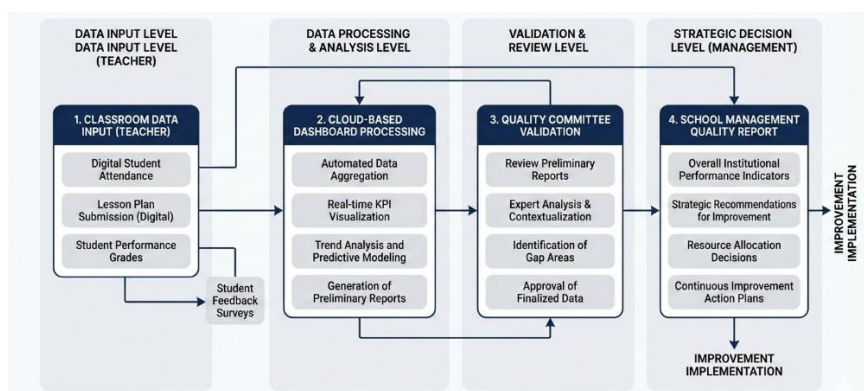


Figure 1. Integrated Digital SPMI Data Flow Model

Figure 1. The systemic flow of quality data demonstrates a closed-loop feedback mechanism. Data originates from grassroots pedagogical activities (Teacher Level) and is filtered through an automated digital engine before reaching the strategic management level. This ensures that school quality reports are not static documents but are dynamic reflections of actual classroom performance, thereby minimizing data manipulation and administrative lag.

The paradigm shift toward digitalization is evident in the School Principal's testimony, which emphasizes the strategic necessity of this transition. In a recent interview, the Principal stated: "Previously, our quality evaluation was hampered by delayed data submission and fragmented documentation. By implementing a digital dashboard, we can now track teacher performance and student progress daily, ensuring that no department lags behind the national standards." From the researcher's perspective, this indicates a move toward 'anticipatory management.' The digital system acts as a catalyst for institutional transparency, enabling data to no longer be hidden in physical archives but to be visible and actionable for leadership to maintain academic excellence.

A more technical perspective was provided by the Coordinator of Quality Assurance, who highlighted the shift in the functional role of teacher supervision. During the interview, the Coordinator remarked, "The digital platform has standardized our evaluation criteria. Teachers now upload their portfolios and student assessment results directly to the cloud, allowing for peer review and immediate feedback from the quality committee." The researcher interprets this as the institutionalization of a "quality culture." The integration of digital tools has successfully reduced human error and subjectivity in performance appraisals, fostering a meritocratic environment where professional growth is guided by objective, real-time metrics rather than intermittent manual inspections.

Observational data further validates these findings, as evidenced by the daily operations within the madrasah's administrative hub. The researcher noted that teachers frequently use the digital portal to update pedagogical milestones,

and that management meetings now feature data visualizations from the SPMI dashboard. This shift from physical ledgers to digital interfaces suggests a profound change in the organizational habitus. The researcher observes that the physical presence of the digital system has streamlined the "Plan-Do-Check-Act" (PDCA) cycle, making the school's internal auditing process more fluid, less intrusive, and significantly more efficient than traditional bureaucratic methods.

In summary, the data indicates a comprehensive digital transformation that goes beyond simple automation. The core of this finding lies in the "democratization of data," where quality assurance is no longer a top-down mandate but a shared digital responsibility. By restating the evidence, it becomes clear that madrasah has evolved into a "smart madrasah" that leverages technology to bridge the gap between national quality standards and local operational realities. The observed pattern is Continuous Digital Optimization, in which the digital framework serves as both a repository of institutional memory and a compass for future strategic planning.

Table 1. The Impact of Ideal Digital SPMI Implementation

Informant Position	Interview Excerpt	Quality Indicator
School Principal	"The digital dashboard allows us to track performance daily, ensuring no department lags behind."	Real-time Oversight & Strategic Accountability
Quality Coordinator	"The platform standardized our criteria... allowing for immediate feedback and peer review."	Standardization & Pedagogical Consistency
Senior Teacher	"Uploading our portfolios online has reduced the administrative burden and made our progress visible."	Administrative Efficiency & Transparency

The data presented in Table 1 illustrate a significant shift toward a "high-reliability organizational" pattern. The correlation between the informants' testimonies and the identified indicators suggests that the digital SPMI is not merely a technical add-on but a structural reform that enhances institutional resilience. The pattern shows that as transparency increases through digital visibility, staff accountability rises proportionately. This reflects a maturation of the organizational culture, where technology acts as an invisible supervisor that maintains high standards without the friction of traditional surveillance.

Furthermore, the deep interpretation of this pattern highlights a transition from "administrative efficiency" to "strategic agility." The indicators of standardization and real-time oversight demonstrate that the madrasah has successfully mitigated the "decoupling" problem often found in educational institutions, where policy and practice are disconnected. Instead, the digital

system ensures that the lofty goals of Total Quality Management (TQM) are translated into granular, daily actions. This indicates that the madrasah has achieved a state of digital maturity where data-driven insights are the primary drivers of sustainable academic quality.

Instructional Leadership in the Adaptation of the National Curriculum

Instructional leadership at madrasah transcends traditional administrative oversight, manifesting as a proactive engagement in pedagogical mentorship and clinical supervision. In this context, the leadership serves as a strategic bridge, translating national curriculum mandates into localized instructional strategies that resonate with Sampit's unique socio-cultural landscape. Operationally, this involves a dual role in which the school principal functions not merely as a bureaucratic manager but as a "lead learner" who actively facilitates professional development, classroom observations, and the integration of local wisdom into the academic framework. This leadership model serves as the primary engine for organizational stability, ensuring that curriculum changes do not disrupt institutional quality.

The depth of this instructional engagement is reflected in the School Principal's testimony, which emphasized the importance of psychological support during curriculum shifts. During an interview, the Principal stated: "My role is to ensure that teachers do not feel overwhelmed by the dynamic changes in the national curriculum. I personally conduct clinical supervision to identify specific challenges in the classroom, transforming these hurdles into collaborative learning opportunities rather than punitive evaluations." The researcher interprets this as a shift toward Empathetic Supervision. By positioning the leader as a pedagogical mentor, the institution has successfully mitigated the "policy shock" often associated with curriculum reform, thereby fostering a safe environment for instructional innovation.

Further evidence of this leadership pattern was provided by a Senior Teacher, who highlighted the practical impact of the principal's involvement in lesson planning. The teacher remarked: "The principal frequently joins our subject-matter meetings to discuss how we can integrate local Sampit culture and environmental context into our science and social studies modules. This guidance gives us the confidence to adapt national standards without losing our local identity." From the researcher's perspective, this indicates the presence of Instructional Agency. The leader's active participation in the instructional design phase empowers teachers to exercise professional autonomy while remaining aligned with national quality benchmarks.

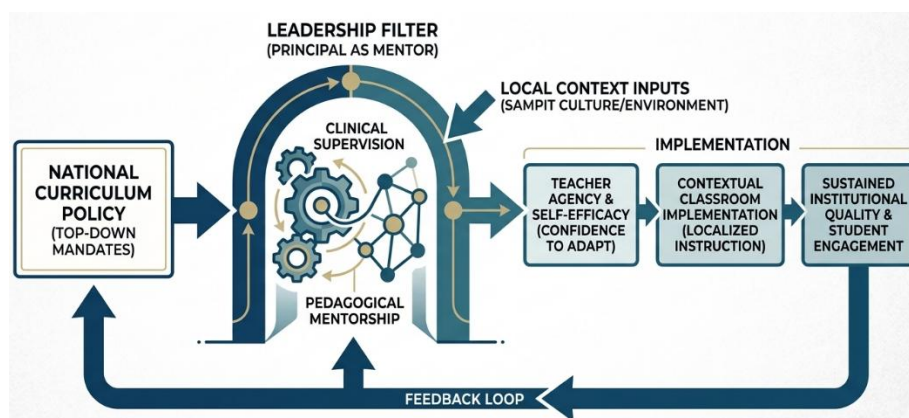


Figure 2. The Instructional Bridge Model

This flow suggests that leadership acts as a "buffer" and "catalyst." Without the leadership filter, national policies would be implemented mechanically; however, instructional leadership ensures they are "humanized" and contextualized for the local Sampit environment.

Observational data reinforces these findings, particularly during the scheduled "Instructional Walkthroughs" conducted by the school leadership. The researcher observed that these sessions are characterized by a collaborative atmosphere in which the principal provides immediate, constructive feedback rather than static checklists. This hands-on approach directly shapes the organizational habitus, shifting the perception of supervision from an act of "compliance" to one of "professional growth." The researcher noted that teachers displayed higher levels of engagement and instructional creativity when the leader was physically present in the pedagogical space, demonstrating that instructional leadership is a visible and lived practice within the madrasah.

In summary, the data reveals a robust model of leadership that prioritizes the professional well-being and pedagogical competence of the staff. By restating the evidence, it is clear that madrasah utilizes instructional leadership as a stabilizing force amid the volatility of national educational reforms. The observed pattern is one of Adaptive Instructional Mentorship, where the leader's dual focus on administrative rigor and pedagogical empathy creates a resilient organizational structure. This restatement clarifies that the success of curriculum adaptation at this site is not accidental but is a direct result of a leadership style that bridges the gap between policy intent and classroom reality.

Table 2. Influence of Instructional Leadership in Curriculum Adaptation

Informant Position	Interview Excerpt	Indicator
Senior Teacher	"The principal regularly observes our classes and provides feedback that helps us adjust the national curriculum to our students' needs."	Clinical supervision and pedagogical mentoring

Vice Principal for Curriculum	“The principal organizes workshops and mentoring sessions before implementing new curriculum policies.”	Collaborative curriculum interpretation
Subject Teacher	“Through regular discussions with the principal, we are encouraged to redesign lesson plans that connect national standards with local learning contexts.”	Contextualized curriculum adaptation

The data in Table 2 illustrate a pattern of Instructional Synchronization, in which the leader’s actions are perfectly aligned with the psychological and professional needs of the teachers. This synchronization is crucial because it transforms the national curriculum from a rigid external requirement into a flexible internal asset. The interpretation of this pattern suggests that when a leader provides a clear pedagogical vision and tangible support, the institution develops a high level of "instructional resilience." This allows the school to maintain high-quality outputs even amid rapid changes in external policy environments.

Furthermore, the description of this pattern highlights Leadership as an Organizational Engine. By focusing on clinical supervision and local adaptation, the madrasah principal has created a feedback loop that continuously improves teacher performance. This deep-seated pattern reveals that the "instructional bridge" is the most vital component in modern school management; it ensures that the "how" and "why" of teaching are consistently prioritized over the "what" of administrative compliance. Consequently, the madrasah stands as a model of how instructional leadership can drive institutional excellence in a regional context.

Organizational Responsiveness to Students’ Digital Behavioral Trends

Organizational responsiveness to students’ digital behavior refers to the madrasa's institutional capacity to recognize, anticipate, and address emerging digital practices among students, particularly those related to social media engagement, online financial transactions, and digital borrowing trends prevalent in urban Sampit. Operationally, this responsiveness manifests through structured digital literacy programs, ethical guidance on online behavior, and institutional monitoring mechanisms to mitigate risks associated with uncontrolled digital exposure. In this context, the madrasa does not merely function as an academic institution. Still, it evolves into a socially responsive organization that integrates digital ethics education into its broader character-building framework.

Table 3. Organizational Responses to Students' Digital Behavioral Trends

Interview Excerpt	Indicator	Informant
"Many students are very active on social media, so the madrasa provides guidance on how to use digital platforms responsibly."	Digital ethics education	Guidance and Counseling Teacher
"We have started integrating digital literacy sessions into extracurricular activities to help students understand the risks of online transactions and digital loans."	Structured digital literacy program	Vice Principal for Student Affairs
"The school regularly reminds students about responsible online behavior, especially regarding financial transactions and online borrowing."	Preventive institutional monitoring	Madrasa Principal

The table reveals that the madrasa has adopted a proactive institutional stance toward emerging digital behavioral patterns among students. The first indicator, digital ethics education, demonstrates that teachers particularly those in guidance and counseling roles act as frontline mediators between students and the rapidly evolving digital environment. Their involvement highlights the importance of embedding digital responsibility within the broader framework of student character education. From the researcher's perspective, this approach reflects an awareness that digital behavior is not merely a technological issue but also a moral and social concern that requires systematic educational intervention.

Furthermore, the implementation of structured digital literacy programs indicates that the madrasa has institutionalized preventive strategies to address potential risks associated with digital engagement. The vice principal's testimony suggests that digital literacy is not treated as a peripheral activity but rather integrated into student development programs. The researcher interprets this initiative as evidence that the organization is cultivating critical digital awareness among students. By contextualizing issues such as online transactions and digital borrowing within educational activities, the madrasa seeks to strengthen students' capacity to navigate digital ecosystems responsibly.

Observational data reinforce these interpretations. During several school activities, students were observed participating in discussions and advisory sessions on responsible digital practices, particularly regarding social media use and online financial interactions. Teachers frequently incorporated real-life digital risks into classroom discussions and extracurricular sessions. The researcher interprets these observations as an indication that digital literacy initiatives are not purely symbolic programs but are actively implemented in daily school practices. These initiatives help build students' awareness of digital ethics while strengthening institutional oversight of emerging behavioral trends.

Restatement of the findings indicates that the madrasa has developed a comprehensive institutional response to the growing influence of digital culture among students. Through digital ethics education, structured literacy programs,

and preventive monitoring practices, the institution seeks to guide students toward responsible digital engagement while mitigating potential social and financial risks associated with digital platforms.

The data description reveals a clear pattern: the madrasa's response to digital behavioral trends follows a three-layered institutional strategy. The first layer involves awareness-building through digital ethics education; the second layer consists of structured digital literacy programs embedded in student development activities; and the third layer involves ongoing monitoring and guidance by school leadership and counseling staff. This pattern suggests that the madrasa has developed a form of organizational social resilience, enabling it to respond adaptively to the challenges posed by rapidly evolving digital cultures among urban students.

Discussion

The findings of this study demonstrate that the integration of a digitally based Internal Quality Assurance System (SPMI) represents a significant transformation in the governance of educational quality within the madrasah. This transformation aligns with the broader discourse on digital governance in education, which emphasizes the role of data-driven management in improving institutional accountability and decision-making (Elugbaju et al., 2024). Previous studies have highlighted that digital quality assurance systems enable schools to shift from reactive evaluation models to continuous monitoring frameworks that enhance transparency and efficiency (Ranjith Kumar et al., 2022; Warren et al., 2026). Similarly, research on educational digitalization shows that centralized dashboards and cloud-based monitoring platforms allow school leaders to access real-time institutional data, thereby strengthening evidence-based policy implementation (Gautam & Kotiyal, 2024). The findings of this study reinforce these arguments by demonstrating that the digital SPMI system enables the madrasa to minimize administrative delays and ensure continuous performance tracking. However, unlike many studies that examine digitalization primarily in higher education contexts, the present research highlights how digital quality assurance can be effectively implemented within Islamic secondary education institutions, thereby expanding the empirical scope of digital governance research in education.

Furthermore, the findings regarding instructional leadership in curriculum adaptation resonate strongly with existing literature on leadership practices in dynamic educational policy environments. Instructional leadership has long been recognized as a key factor influencing teacher performance and curriculum implementation, particularly during periods of educational reform (Ralebese et al., 2025b, 2025a). The results of this study confirm that when school

leaders actively engage in clinical supervision and pedagogical mentoring, teachers are better equipped to interpret national curriculum policies within their local contexts. This finding is consistent with research indicating that instructional leaders who provide professional guidance and opportunities for collaborative decision-making significantly enhance teacher efficacy and instructional quality (Pañares, 2025; Woo et al., 2022). However, the present study adds a contextual dimension by showing that instructional leadership in madrasas also involves integrating local cultural elements into the curriculum. This adaptation suggests that leadership practices in religious educational institutions operate within a hybrid framework that balances national policy requirements with community-based knowledge systems.

Another important contribution of this study lies in its examination of organizational responsiveness to students' digital behavioral trends. The findings demonstrate that the madrasa has developed institutional strategies to address the social consequences of digitalization, particularly the risks associated with adolescents' social media engagement and online financial activities. This result aligns with contemporary research on digital citizenship and digital literacy in schools, which emphasizes the importance of equipping students with ethical and critical competencies for navigating digital environments (Stephen et al., 2025; Villar-Onrubia et al., 2022). Studies on youth digital culture have also emphasized that schools play a crucial role in mediating students' online behavior and preventing digital risks such as misinformation, cyberbullying, and financial exploitation (Alismaiel, 2023; Chiner et al., 2025). The findings of this study extend this literature by demonstrating that Islamic educational institutions can act as socially responsive organizations that integrate digital ethics into character education frameworks. This indicates that digital literacy initiatives are not merely technological interventions but are also deeply connected to moral and social education.

From a theoretical perspective, this study contributes to the development of an integrated framework linking digital governance, instructional leadership, and organizational resilience in educational institutions. Existing research often examines these themes separately, focusing either on digital transformation or leadership practices in schools. However, the findings of this study suggest that these elements are interdependent and mutually reinforcing. The digital SPMI system enhances leadership capacity by providing real-time institutional data, while instructional leadership ensures that curriculum policies are implemented effectively at the classroom level. At the same time, the organization's responsiveness to students' digital behaviors demonstrates that institutional leadership must extend beyond academic management toward broader social responsibility. This integrated perspective supports recent arguments that

modern educational institutions must operate as adaptive organizations capable of responding to technological, pedagogical, and social changes simultaneously (Cameron, 1984; Chergui et al., 2025).

Practically, the findings of this study offer several important implications for educational management, particularly within Islamic educational institutions and similar school contexts. First, the implementation of digital quality assurance systems can significantly improve institutional transparency and efficiency, provided that teachers are actively involved in the digital ecosystem. Second, school leaders should adopt an instructional leadership approach that emphasizes mentoring, collaborative curriculum design, and continuous professional development rather than purely administrative supervision. Third, educational institutions must proactively address the social impacts of digitalization by integrating digital literacy and ethical guidance into their student development programs. These practical implications suggest that sustainable school improvement requires a holistic management approach in which technology, leadership, and social responsibility are strategically aligned to support long-term educational quality.

CONCLUSION

The most significant finding of this study is that transforming madrasa management toward a digitally integrated quality assurance system, combined with strong instructional leadership and organizational responsiveness to digital behavioral trends, creates a resilient educational ecosystem. The research demonstrates that digital-based Internal Quality Assurance Systems (SPMI) function not only as administrative tools but also as strategic instruments that enable real-time monitoring, transparency, and continuous institutional improvement. At the same time, instructional leadership plays a crucial mediating role in translating national curriculum reforms into contextually relevant pedagogical practices, while the madrasa's responsiveness to students' digital behaviors illustrates the institution's capacity to adapt to the sociocultural challenges of the digital era. The key lesson derived from this research is that sustainable educational quality emerges from the synergy between technological governance, empathetic instructional leadership, and socially responsive institutional policies.

From a scholarly perspective, the strength of this study lies in its contribution to integrating three critical dimensions of contemporary educational management: digital governance, instructional leadership, and organizational social resilience. By examining these elements within the context of madrasa education, the study extends the existing literature on digital transformation and leadership in schools, particularly within faith-based educational institutions

that are often underrepresented in global educational research. Nevertheless, this study has certain limitations. The research is confined to a single institutional context, which may limit the generalizability of the findings to other educational environments with different organizational cultures or technological infrastructures. Future research should therefore expand the scope by conducting comparative studies across multiple madrasas or educational institutions in different regions, and by exploring longitudinal analyses to assess the long-term impact of digital quality assurance systems and digital literacy programs on institutional performance and student development.

REFERENCES

- Ahmad, N. Q., Riyadi, R., Soeprijanto, S., Badrujaman, A., & Indrawati, P. (2025). Integration of Internal-External Quality Assurance System as a Driver of Education Quality Improvement at MAN 14 Jakarta. *Jurnal Evaluasi Pendidikan*, 16(2), 79–87. <https://doi.org/10.21009/jep.v16i2.60714>
- Alismaiel, O. A. (2023). Digital Media Used in Education: The Influence on Cyberbullying Behaviors Among Youth Students. *International Journal of Environmental Research and Public Health*, 20(2), 1370. <https://doi.org/10.3390/ijerph20021370>
- Buabeng, I., & Amo-Darko, B. (2025). Curriculum Reforms Without Foundation: The Effects of Inadequate Preparation in Curriculum Reforms on Ghanaian Teachers and the Education System. *Curriculum Perspectives*, 45(2), 133–147. <https://doi.org/10.1007/s41297-025-00309-7>
- Cameron, K. S. (1984). Organizational Adaptation and Higher Education. *The Journal of Higher Education*, 55(2), 122–144. <https://doi.org/10.1080/00221546.1984.11778679>
- Chergui, M., Nagano, A., & Ammoumou, A. (2025). Toward an Adaptive Learning System by Managing Pedagogical Knowledge in a Smart Way. *Multimedia Tools and Applications*, 84(24), 27777–27793. <https://doi.org/10.1007/s11042-024-20207-w>
- Chiner, E., Gómez-Puerta, M., Mengual-Andrés, S., & Merma-Molina, G. (2025). Teacher and School Mediation for Online Risk Prevention and Management: Fostering Sustainable Education in the Digital Age. *Sustainability*, 17(8), 3711. <https://doi.org/10.3390/su17083711>

- Dallasheh, W. W. (2026). Assessing the Influence of Total Quality Management Domains in Minority Academic Colleges: Concepts and Execution. *International Journal of Quality & Reliability Management*, 43(3), 717–740. <https://doi.org/10.1108/IJQRM-07-2024-0247>
- Elugbaju, W. K., Okeke, N. I., & Alabi, O. A. (2024). Conceptual Framework for Enhancing Decision-Making in Higher Education Through Data-Driven Governance. *Global Journal of Advanced Research and Reviews*, 2(2), 16–30. <https://doi.org/10.58175/gjarr.2024.2.2.0055>
- Eshete, B. A., & Kassahun, T. (2025). Adaptive Leadership, Organizational Culture and Patient-Perceived Service Quality in Private Healthcare: Evidence From Addis Ababa. *International Journal of Health Care Quality Assurance*, 1–16. <https://doi.org/10.1108/IJHCQA-09-2025-0136>
- Faryadi, M. (2024). Enhancing Sustainable Communities Through the Protection of Natural Buffer Zones. *Journal of Sustainable Development Law and Policy*, 15(2), 261. <https://doi.org/10.4314/jsdip.v15i2.10>
- Frimawan, F., & Andini, A. (2026). Bureaucratic Reform as a Strategy to Improve the Quality of Governance: A Study of Policy Processes and Implementation. *Journal of Public Administration Research*, 1(1), 50–66.
- Gale, T., Astorga, E., Adiego, A., & Báez-Montenegro, A. (2025). Expert Consensus on Buffer Zone Governance: Interface Concepts, Ecosystem Service Priorities, and Territorial Strategies Around Cerro Castillo National Park, Chile. *Land*, 14(9), 1763. <https://doi.org/10.3390/land14091763>
- Gautam, A., & Kotiyal, A. (2024). Connecting the Future: Cloud-Based IoT in Education. Dalam *Integration of Cloud Computing and IoT* (hlm. 274–308). Chapman and Hall/CRC. <https://doi.org/10.1201/9781032656694-15>
- Gretschel, P., Ramugondo, E. L., & Galvaan, R. (2023). Linking Paradigms and Methodologies in a Qualitative Case Study Focused on Exploring the Operation of Power in Human Actions During the Design of a New Occupational Therapy Intervention. *International Journal of Qualitative Methods*, 22, 1–13. <https://doi.org/10.1177/16094069231187590>
- Iwara, I. O. (2025). Graduate Employability in Africa: Reimagining Rural-Based Entrepreneurial University Paradigm. *Sustainability*, 17(10), 4628. <https://doi.org/10.3390/su17104628>
- Kejora, M. T. B., Komariah, A., Herawan, E., & Sudarsyah, A. (2025). Ekopasantren: An Ecology-Based Education Model With Local Wisdom Supports the Sustainable Development Goals. *Al-Ishlah: Jurnal Pendidikan*, 17(1), 291–306. <https://doi.org/10.35445/alishlah.v17i1.6246>
- Latif, M. A. (2025). Institutional Capacity Dilemmas in Dual Curriculum: A Pesantren Case Study. *Jurnal Pendidikan Agama Islam*, 3(2), 36–52.

- Li, Y., & Zhang, S. (2022). Qualitative Data Analysis. Dalam *Applied Research Methods in Urban and Regional Planning* (hlm. 149–165). Springer. https://doi.org/10.1007/978-3-030-93574-0_8
- Lim, W. M. (2025). What Is Qualitative Research? An Overview and Guidelines. *Australasian Marketing Journal*, 33(2), 199–229. <https://doi.org/10.1177/14413582241264619>
- Marini, A., & Zakiah, L. (2025). Comprehensive Factors Influencing the Success of Internal Quality Assurance Systems in Elementary Schools: Resources, Leadership, and Community Support. *Jurnal Pendidikan Administrasi Perkantoran (JPAP)*, 13(1), 440–450.
- Mehmood, W., Ahmad, A., Aman-Ullah, A., & Mohd-Rashid, R. (2023). Modern Slavery: A Literature Review Using Bibliometric Analysis and the Nexus of Governance. *Journal of Public Affairs*, 23(1), e2832. <https://doi.org/10.1002/pa.2832>
- Meydan, C. H., & Akkaş, H. (2024). The Role of Triangulation in Qualitative Research: Converging Perspectives. Dalam *Principles of Conducting Qualitative Research in Multicultural Settings* (hlm. 98–129). IGI Global. <https://doi.org/10.4018/979-8-3693-3306-8.ch006>
- Mufarokah, A., Anwar, H. S., & Mudhofar, A. (2025). Curriculum Changes in Indonesia: Implementation and its Challenges in Religious Institutions. *Journal of Educational Research and Practice*, 3(1), 16–31. <https://doi.org/10.70376/jerp.v3i1.266>
- Pañares, S. M. (2025). School Administrators' Engagement and its Relationship With Teachers' Collaboration and Decision-Making Effectiveness. *United International Journal for Research and Tekhnology*, 6(7), 344–357.
- Ralebese, M. D., Jita, L., & Badmus, O. T. (2025a). Examining Primary School Principals' Instructional Leadership Practices: A Case Study on Curriculum Reform and Implementation. *Education Sciences*, 15(1), 70. <https://doi.org/10.3390/educsci15010070>
- Ralebese, M. D., Jita, L. C., & Badmus, O. T. (2025b). Perceptions and Practices of Principals: Examining Instructional Leadership for Curriculum Reform. *Frontiers in Education*, 10, 1591106. <https://doi.org/10.3389/feduc.2025.1591106>
- Ranjith Kumar, R., Ganesh, L. S., & Rajendran, C. (2022). Quality 4.0—A Review of and Framework for Quality Management in the Digital Era. *International Journal of Quality & Reliability Management*, 39(6), 1385–1411. <https://doi.org/10.1108/IJQRM-05-2021-0150>

- Robinson, C., & Williams, H. (2024). Interpretative Phenomenological Analysis: Learnings From Employing IPA as a Qualitative Methodology in Educational Research. *The Qualitative Report*, 29(4), 1104–1123. <https://doi.org/10.46743/2160-3715/2024.6487>
- Rohman, A., Meraj, G., Isna, A., Taruna, M. M., Rachmadhani, A., Atmanto, N. E., & Nasikhin, N. (2024). Challenges in Islamic Education Curriculum Development: A Comparative Study of Indonesia, Pakistan, and India. *International Journal of Learning, Teaching and Educational Research*, 23(6), 504–523. <https://doi.org/10.26803/ijlter.23.6.23>
- Rosita, L., Tileng, K. G., Mardhiana, H., & Christie, V. (2025). Assessing the Effectiveness of MISHEQA for Internal Quality Assurance: A Multi-Stakeholder Evaluation. *Jurnal Mantik*, 9(3), 2110–2120.
- Stephen, O. B., Olatoye, G. O., Oluwabukola, J. A., Olaniyi, O. P., & Kolash, B. J. (2025). Exploring the Integration of Digital Literacy and Cyber Security Education for Ethical and Safe Digital Citizenship in Schools. *Bima Journal of Science and Technology Gombe*, 9(3B), 183–188. <https://doi.org/10.64290/bima.v9i3B.1377>
- Strijker, D., Bosworth, G., & Bouter, G. (2020). Research Methods in Rural Studies: Qualitative, Quantitative and Mixed Methods. *Journal of Rural Studies*, 78, 262–270. <https://doi.org/10.1016/j.jrurstud.2020.06.007>
- Suryaningsih, C., Solang, D. J., Hastuty, A., Indrayani, E., & Judijanto, L. (2025). Character Education as the Main Pillar in Creating Resilient Human Resources to Strengthen National Defense in the Modern Era. *Journal of Hunan University Natural Sciences*, 52(9), 85–94. <https://doi.org/10.55463/issn.1674-2974.52.9.7>
- Teles, A. J., Bohm, B. C., Silva, S. C. M., & Bruhn, F. R. P. (2023). Socio-Geographical Factors and Vulnerability to Leptospirosis in South Brazil. *BMC Public Health*, 23(1), 1311. <https://doi.org/10.1186/s12889-023-16094-9>
- Villar-Onrubia, D., Morini, L., Marín, V. I., & Nascimbeni, F. (2022). Critical Digital Literacy as a Key for (Post) Digital Citizenship: An International Review of Teacher Competence Frameworks. *Journal of E-Learning and Knowledge Society*, 18(3), 128–139.
- Warren, S. J., Boston Vogt, E., Tincher, B., & Yang, J. (2026). Enhancing Quality Assurance Through Strategic Artificial Intelligence Integration: A Framework for Higher Education Digital Transformation. *Quality Assurance in Education*, 34(2), 205–222. <https://doi.org/10.1108/QAE-09-2024-0183>
- Woo, H., LeTendre, G., Byun, S., & Schussler, D. (2022). Teacher Leadership: Collective Actions, Decision-Making and Well-Being. *International Journal of Teacher Leadership*, 11(1), 29–49.

- Yeboah, S. A., & Boasiako, A. A. (2024). Beyond the Classroom: Quality Assurance in Developing Nations. *Journal of Education and Practice*, 15(4), 12–25.
- Zhou, X., Lu, H., & Xu, Z. (2023). A Balance of Economic Advancement and Social Needs via Improving Supply Chain Traceability for Future Food Sustainability: An Empirical Study From China. *Production Planning & Control*, 1–21. <https://doi.org/10.1080/09537287.2023.2240751>