

Beyond Compliance: Operationalizing Internal Quality Assurance Systems for Enhanced Teacher and Principal Performance

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Abstract:

This study aims to analyze the relationship between the implementation of the Internal Quality Assurance System (SPMI), teacher performance, and madrasah principal leadership. This study used a descriptive correlational design with a quantitative approach involving 100 teachers as respondents. Data were collected through a structured questionnaire consisting of 17 valid items to measure the implementation of SPMI, teacher performance, and madrasah principal leadership. The research instrument has a very high level of reliability with a Cronbach's Alpha value of 0.988. Data were analyzed using descriptive statistics and Spearman's rho correlation. The results showed that the implementation of SPMI was in the very good category ($M = 4.35$), followed by teacher performance ($M = 4.56$) and madrasah principal leadership ($M = 4.65$). The implementation of SPMI has a positive and significant relationship with teacher performance ($r = 0.624$; $p < 0.001$) and madrasah principal leadership ($r = 0.530$; $p < 0.001$). This study demonstrates that effective implementation of the PPEPP cycle can strengthen a culture of quality, enhance teacher professionalism, and support effective educational leadership. These findings provide an empirical contribution to the development of educational quality management through the integration of quality assurance practices, teacher performance, and madrasah leadership.

Keywords: *Teaching Factory, Vocational Education, Student Entrepreneurship, Work Readiness*

Abstrak:

Penelitian ini bertujuan untuk menganalisis hubungan antara implementasi Sistem Penjaminan Mutu Internal (SPMI), kinerja guru, dan kepemimpinan kepala madrasah. Penelitian ini menggunakan desain deskriptif korelasional dengan pendekatan kuantitatif yang melibatkan 100 guru sebagai responden. Data dikumpulkan melalui kuesioner terstruktur yang terdiri atas 17 item valid untuk mengukur implementasi SPMI, kinerja guru, dan kepemimpinan kepala madrasah. Instrumen penelitian memiliki tingkat reliabilitas yang sangat tinggi dengan nilai Alpha Cronbach sebesar 0,988. Data dianalisis menggunakan statistik deskriptif dan korelasi Spearman rho. Hasil penelitian menunjukkan bahwa implementasi SPMI berada pada kategori sangat baik ($M = 4,35$), diikuti oleh kinerja guru ($M = 4,56$) dan kepemimpinan kepala madrasah ($M = 4,65$). Implementasi SPMI memiliki hubungan positif dan signifikan dengan kinerja guru ($r = 0,624$; $p < 0,001$) serta kepemimpinan kepala madrasah ($r = 0,530$; $p < 0,001$). Penelitian ini menunjukkan bahwa penerapan siklus PPEPP yang efektif dapat memperkuat budaya

mutu, meningkatkan profesionalisme guru, dan mendukung efektivitas kepemimpinan pendidikan. Temuan ini memberikan kontribusi empiris bagi pengembangan manajemen mutu pendidikan melalui integrasi praktik penjaminan mutu, kinerja guru, dan kepemimpinan madrasah.

Kata Kunci: *Sistem Penjaminan Mutu Internal, Kinerja Guru, Kepemimpinan Kepala Madrasah*

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INTRODUCTION

Madrasahs constitute one of the most important pillars of Indonesia's educational system because they simultaneously develop students' academic competence, religious understanding, moral integrity, and social responsibility (Sarifah et al., 2023; Yuliana et al., 2026). Unlike general schools, madrasahs integrate national educational objectives with Islamic values, making educational quality not only a matter of academic achievement but also of character formation and spiritual development (Jannana & Wijayanti, 2025). Consequently, maintaining educational quality in madrasahs has become increasingly important as society demands graduates who are intellectually competent, ethically responsible, and capable of responding to rapid social and technological changes (Srinio et al., 2025; Syarip et al., 2026). Achieving these expectations requires educational institutions to establish systematic quality assurance mechanisms that continuously evaluate and improve institutional performance. Therefore, the Internal Quality Assurance System (SPMI) has become a strategic instrument for ensuring sustainable educational quality while strengthening institutional accountability, governance, and public trust in Islamic educational institutions (Rostini et al., 2025; Syamkhotsaa & Priyanggani, 2026).

Educational quality in madrasahs, however, continues to face significant challenges despite various national quality improvement initiatives (Hidayah et al., 2025; Mu'alimin et al., 2026). Many madrasahs have obtained excellent accreditation results, yet evidence from educational practice indicates that quality assurance activities are frequently implemented merely to satisfy administrative requirements rather than functioning as continuous institutional improvement mechanisms. In many cases, planning, implementation, evaluation, and follow-up activities prescribed within the SPMI framework are not consistently integrated into daily organizational practices (Fauzi et al., 2024; Nurani et al., 2026). As a result, institutional decision-making often relies on short-term administrative compliance instead of systematic evidence generated through internal quality evaluation. This condition weakens organizational learning, limits continuous improvement efforts, and reduces the effectiveness of quality assurance in supporting educational excellence. Consequently, understanding how SPMI relates to educational performance has become increasingly important for strengthening sustainable quality management in madrasahs (Syamkhotsaa & Priyanggani, 2026; Widiatoro, 2026).

The implementation of SPMI also depends heavily on human resources, particularly teachers and madrasah principals, who are responsible for translating quality assurance policies into everyday educational practice (Badarudin et al.,

2025; Robita & Dakir, 2025). Teachers are expected to demonstrate professional competence, instructional effectiveness, and continuous performance improvement, while principals play strategic roles in coordinating institutional planning, fostering quality culture, supervising educational processes, and facilitating organizational development (Abidin et al., 2024; Galdames-Calderón, 2023). Nevertheless, field observations indicate that SPMI implementation often remains disconnected from leadership practices and teacher performance improvement. Many principals focus primarily on fulfilling accreditation documentation, whereas teachers perceive quality assurance activities as additional administrative responsibilities instead of instruments for professional development (Yenita & Andriani, 2025). Such conditions reduce stakeholder engagement and hinder the establishment of a sustainable quality culture. Therefore, examining the relationship between SPMI, teacher performance, and principal leadership becomes essential for improving educational quality in public madrasahs.

Previous studies have consistently recognized SPMI as an essential strategy for improving educational quality. Yuseran (2023) reported that SPMI contributes to developing institutional quality culture, strengthening governance systems, and supporting continuous quality improvement (M. Z. Abidin et al., 2023; Marpudin & Saleh, 2026). Other studies emphasized that successful quality assurance implementation requires active participation from principals, teachers, administrative staff, school committees, and other stakeholders (Andary & Prabowo, 2025). These findings collectively demonstrate that educational quality cannot be achieved solely through regulatory compliance but requires collaborative institutional commitment. Furthermore, Islamic educational principles reinforce this perspective through the prophetic tradition stating that every individual is a leader and will be held accountable for the responsibilities entrusted to them (Sahih Muslim), highlighting collective responsibility as the foundation of educational quality assurance (Arar et al., 2026; Saputra et al., 2024).

Despite these important contributions, existing studies remain fragmented in explaining how SPMI influences organizational performance within madrasahs. Most previous research has concentrated on describing SPMI implementation, accreditation readiness, or leadership effectiveness independently, without examining the relationships among these constructs simultaneously (Muhith et al., 2026; Nuryana et al., 2026). Studies investigating teacher performance generally emphasize leadership styles, whereas quality assurance research focuses predominantly on institutional procedures and policy implementation (S. Ahmad & Ahmed, 2023; Mu'alimin et al., 2026). Consequently, limited empirical evidence explains whether stronger SPMI implementation is associated with higher teacher performance and more effective principal leadership, particularly within public madrasahs. Moreover, the unique governance characteristics and organizational culture of state madrasahs remain underrepresented in current literature, creating an important theoretical and contextual gap that requires further investigation.

This study addresses these limitations by positioning SPMI as an integrated quality management system that is empirically associated with two strategic dimensions emphasized in the 2024 national accreditation instrument, namely

teacher performance and madrasah principal leadership. Rather than merely describing the implementation of SPMI, this study investigates its relationship with institutional performance indicators within public madrasahs in Kuantan Singingi Regency (Januarni et al., 2025). This perspective represents the study's novelty because it integrates internal quality assurance, educational leadership, and teacher performance into a single analytical framework based on the continuous quality improvement cycle (PPEPP: Establishment, Implementation, Evaluation, Control, and Improvement). By examining these relationships simultaneously, the study provides a more comprehensive understanding of how internal quality assurance supports sustainable educational quality and strengthens evidence-based management in Islamic educational institutions.

Accordingly, this study seeks to examine the relationship between the Internal Quality Assurance System (SPMI), teacher performance, and madrasah principal leadership in public madrasahs in Kuantan Singingi Regency. The study argues that effective implementation of the PPEPP cycle strengthens institutional quality culture, enhances teacher performance, and supports more effective principal leadership, thereby contributing to improved educational quality and accreditation outcomes. Since teacher performance and principal leadership constitute two major components of the 2024 accreditation instrument, understanding their relationship with SPMI has important theoretical and practical implications. The findings are expected to enrich the literature on quality assurance in Islamic education, provide empirical evidence regarding the effectiveness of SPMI implementation, and offer recommendations for policymakers and educational practitioners seeking to strengthen continuous quality improvement and sustainable governance within public madrasahs.

RESEARCH METHODS

This study employed a quantitative descriptive correlational research design. A quantitative approach was selected because the study aimed to measure the relationship between the implementation of the Internal Quality Assurance System (SPMI), teacher performance, and madrasah principal leadership using numerical data obtained from respondents. The descriptive design was adopted to describe the characteristics of each research variable as they naturally occur, while the correlational approach was used to determine the magnitude and direction of the relationship among variables without manipulating any research conditions. Three variables were examined in this study: one independent variable, namely the implementation of the Internal Quality Assurance System (SPMI) (X_1), and two dependent variables, namely teacher performance (Y_1) and madrasah principal leadership (Y_2).

The study was conducted in public madrasahs located in Kuantan Singingi Regency, Riau Province, Indonesia. This research site was intentionally selected because public madrasahs in the regency have implemented the Internal Quality Assurance System (SPMI) as part of the national educational quality assurance policy and have recently undergone accreditation using the 2024 accreditation instrument. Nevertheless, preliminary observations indicated that although several madrasahs obtained excellent accreditation results, the implementation of

SPMI had not yet functioned optimally as a continuous quality improvement mechanism. This condition provided an appropriate context for examining the relationship between SPMI implementation, teacher performance, and principal leadership.

Primary data were collected through structured questionnaires distributed directly to respondents during the research period. The questionnaire was designed to measure three constructs: SPMI implementation, teacher performance, and madrasah principal leadership. The respondents consisted of teachers employed in public madrasahs in Kuantan Singingi Regency because they possess direct experience regarding the implementation of quality assurance and school leadership practices. Data collection was conducted after obtaining institutional permission from each participating madrasah. Respondents completed the questionnaire independently, and all responses were treated confidentially and used solely for research purposes.

Before the main survey, the instrument was subjected to validity and reliability testing. Reliability analysis showed that the seventeen questionnaire items produced a Cronbach's Alpha coefficient of 0.988, indicating excellent internal consistency. Furthermore, the Pearson Item–Total Correlation test ($n = 20$; $r\text{-table} = 0.444$) demonstrated that all seventeen questionnaire items exceeded the critical correlation value, confirming that every item was valid and suitable for measuring the intended research variables.

The collected data were first edited to ensure completeness and consistency, followed by coding and tabulation using statistical software. Descriptive statistics were then calculated to summarize the characteristics of each research variable. Subsequently, Spearman's rho correlation analysis was employed to examine the relationship between the implementation of SPMI and the two dependent variables, namely teacher performance and madrasah principal leadership. Spearman's rho was selected because it is an appropriate non-parametric statistical technique for measuring the strength and direction of relationships between variables measured on ordinal scales or data that do not necessarily satisfy the assumptions of normal distribution (Fauzi, 2023; Inayah, 2025). The correlation coefficients were interpreted based on their magnitude and statistical significance at the 0.05 significance level.

The quality of the research instrument was ensured through validity and reliability testing before data collection. Content validity was established through expert judgment during questionnaire development, while empirical validity was examined using the Pearson Item–Total Correlation test. Instrument reliability was evaluated using Cronbach's Alpha coefficient, with values greater than 0.70 considered acceptable and values above 0.90 indicating excellent reliability. Ethical considerations were also maintained by ensuring voluntary participation, respondent anonymity, confidentiality of responses, and the use of collected data exclusively for academic research purposes.

RESULTS AND DISCUSSION

Results

Implementation of the Internal Quality Assurance System (SPMI)

The implementation of the Internal Quality Assurance System (SPMI) in this study refers to the extent to which public madrasahs systematically implement internal quality assurance through the PPEPP cycle (Planning, Implementation, Evaluation, Control, and Improvement). Operationally, SPMI implementation was measured using seven indicators covering the implementation of the PPEPP cycle, teachers' understanding of their responsibilities, stakeholder participation, periodic internal evaluation, utilization of evaluation results, consistency of quality documentation, and leadership support for developing a sustainable quality culture. Higher scores indicate stronger institutional implementation of quality assurance practices.

Table 1. Descriptive Results of SPMI Implementation (n = 100)

Indicator	Mean	Category
PPEPP cycle implementation	4.22	Very Good
Understanding of roles and responsibilities	4.18	Good
Stakeholder involvement	4.45	Very Good
Periodic internal evaluation	4.22	Very Good
Utilization of evaluation results	4.55	Very Good
Quality documentation	4.37	Very Good
Leadership support for quality culture	4.49	Very Good
Overall Mean	4.35	Very Good

The descriptive results demonstrate that the implementation of SPMI in public madrasahs in Kuantan Singingi Regency is perceived positively by teachers, with an overall mean score of 4.35, placing it within the very good category. Among the seven indicators, the highest mean score was obtained for the utilization of quality evaluation results for continuous improvement ($M = 4.55$), followed by leadership support for developing a sustainable quality culture ($M = 4.49$) and stakeholder involvement in quality assurance activities ($M = 4.45$). Conversely, teachers' understanding of their roles and responsibilities in implementing SPMI recorded the lowest mean ($M = 4.18$), although it remained within the good category.

Table 2. Descriptive Statistics of SPMI Implementation

Descriptive Statistics	Value
Respondents	100
Number of Items	7
Mean Score	30.48
Standard Deviation	2.70
Maximum Score	35
Minimum Score	24
Category	High

The descriptive statistical analysis further supports these findings. The mean score of 30.48 out of a theoretical maximum of 35 indicates that teachers consistently perceived the implementation of SPMI to be high across participating madrasahs. Moreover, the relatively small standard deviation ($SD = 2.70$) suggests that respondents demonstrated homogeneous perceptions regarding quality assurance implementation. The observed scores ranged from 24 to 35, indicating

that even the lowest perceptions remained within the high category. These findings suggest that SPMI has been implemented consistently across public madrasahs rather than being concentrated in only a few institutions.

Overall, the empirical evidence indicates that SPMI implementation in public madrasahs has progressed beyond administrative compliance and has become an integral component of institutional quality management. The consistently high scores across almost all indicators demonstrate that quality assurance practices are embedded in planning, implementation, evaluation, and continuous improvement activities. Nevertheless, the comparatively lower score for teachers' understanding of their specific responsibilities suggests that strengthening teachers' capacity and awareness remains an important priority for sustaining institutional quality assurance.

A clear pattern emerges from the descriptive findings. Indicators associated with organizational practices, such as utilizing evaluation results, leadership support, stakeholder participation, and quality documentation, consistently obtained the highest scores. In contrast, the only indicator that did not reach the "very good" category concerned individual understanding of teachers' roles within SPMI. This pattern indicates that institutional systems and organizational commitment toward quality assurance have developed more rapidly than individual ownership of SPMI responsibilities. Therefore, future quality improvement efforts should prioritize strengthening teachers' understanding and active engagement in the quality assurance process to ensure that institutional quality culture is fully supported by individual professional commitment.

Teacher Performance and Madrasah Principal Leadership

Teacher performance and madrasah principal leadership represent two fundamental dimensions of educational quality examined in this study. Teacher performance refers to teachers' ability to plan, implement, evaluate, and continuously improve instructional practices in accordance with professional standards and institutional quality objectives. Meanwhile, madrasah principal leadership refers to the principal's capacity to establish a strategic vision, encourage stakeholder participation, support teachers' professional development, and cultivate a sustainable quality culture. Both variables were measured using structured questionnaires to determine respondents' perceptions of professional performance and leadership effectiveness in public madrasahs in Kuantan Singingi Regency.

Table 3. Descriptive Results of Teacher Performance (n = 100)

Indicator	Mean	Category
Instructional planning	4.62	Very Good
Innovative instructional implementation	4.53	Very Good
Evaluation and improvement of learning outcomes	4.56	Very Good
Continuous professional development	4.60	Very Good
SPMI contributes to teaching performance	4.38	Very Good
Overall Mean	4.56	Very Good

The descriptive analysis shows that teacher performance was perceived as very good, with an overall mean score of 4.56. Among the five indicators, instructional planning based on curriculum requirements and students' learning needs obtained the highest mean ($M = 4.62$), followed by continuous professional

development ($M = 4.60$) and learning evaluation ($M = 4.56$). These findings indicate that teachers consistently demonstrate strong professional competence throughout the instructional process. In contrast, the indicator concerning the perceived contribution of SPMI to improving teaching performance recorded the lowest mean ($M = 4.38$), although it remained within the very good category. This suggests that while teachers acknowledge the benefits of SPMI, its influence is perceived more strongly in institutional quality management than in direct classroom practice.

Table 4. Descriptive Statistics of Teacher Performance

Descriptive Statistics	Value
Respondents	100
Number of Items	5
Mean Score	22.79
Standard Deviation	2.02
Maximum Score	25
Minimum Score	20
Category	High

The descriptive statistics further reinforce these findings. The mean score of 22.79 out of a maximum possible score of 25 indicates that teacher performance remains consistently high across participating madrasahs. Moreover, the relatively small standard deviation ($SD = 2.02$) reflects homogeneous perceptions among respondents, suggesting that high teacher performance is not concentrated within a small number of institutions but is evident throughout the research setting. The observed scores ranged from 20 to 25, indicating that all respondents perceived teacher performance to be within the high category.

Table 5. Descriptive Results of Madrasah Principal Leadership

Indicator	Mean	Category
Strategic vision for educational quality	4.68	Very Good
Encouraging stakeholder participation	4.60	Very Good
Inspiring leadership example	4.64	Very Good
Supporting teachers' professional development	4.67	Very Good
Building a sustainable quality culture	4.67	Very Good
Overall Mean	4.65	Very Good

The descriptive findings reveal that madrasah principal leadership was also perceived at a very good level, with an overall mean score of 4.65. The highest-rated indicator concerned the principal's strategic vision for improving educational quality ($M = 4.68$), followed closely by support for teachers' professional development and efforts to strengthen institutional quality culture (both $M = 4.67$). These findings indicate that principals are perceived as providing clear strategic direction while simultaneously fostering professional learning and organizational improvement. Although stakeholder participation ($M = 4.60$) and inspirational leadership ($M = 4.64$) also received very high ratings, their comparatively lower means suggest opportunities to strengthen collaborative leadership practices further and increase active involvement among teachers and staff in quality improvement initiatives.

Table 6. Descriptive Statistics of Madrasah Principal Leadership

Descriptive Statistics	Value
Respondents	100
Number of Items	5
Mean Score	23.26
Standard Deviation	1.92
Maximum Score	25
Minimum Score	20
Overall Category	High

The descriptive statistics support the consistency of respondents' perceptions regarding leadership effectiveness. The mean score of 23.26, out of a theoretical maximum of 25, confirms that principals' leadership is consistently perceived to be at a high level. Furthermore, the relatively low standard deviation (SD = 1.92) indicates limited variation in teachers' responses, suggesting that effective leadership practices are widely observed across participating madrasahs. The observed scores ranged from 20 to 25, demonstrating that leadership effectiveness is consistently maintained across institutions.

Overall, the findings indicate that both teacher performance and madrasah principal leadership have reached very high levels within public madrasahs in Kuantan Singingi Regency. Teachers exhibit strong competence in instructional planning, classroom implementation, assessment, and professional development. At the same time, principals demonstrate effective strategic leadership by promoting educational quality, supporting teacher development, and cultivating a sustainable quality culture. These results suggest that instructional professionalism and leadership effectiveness constitute complementary dimensions that reinforce institutional quality improvement.

A consistent pattern emerges from the descriptive findings. Indicators reflecting professional competence, including instructional planning, continuous professional development, and classroom assessment, consistently obtained high scores among teachers. Likewise, leadership indicators emphasizing strategic vision, quality culture, and professional support received the highest evaluations from respondents. Conversely, the comparatively lower scores for the perceived contribution of SPMI to teaching performance and stakeholder participation indicate that institutional quality assurance has been more effectively embedded within organizational management than within collaborative instructional practices. This pattern suggests that future quality improvement initiatives should prioritize strengthening teacher engagement with SPMI and expanding participatory leadership practices so that institutional quality assurance is translated more directly into continuous instructional improvement.

SPMI Relationship with Teacher Performance and Principal Leadership

The relationship between the Internal Quality Assurance System (SPMI), teacher performance, and madrasah principal leadership in this study refers to the degree of association between the implementation of institutional quality assurance practices and two key dimensions of educational quality, namely teachers' professional performance and principals' leadership effectiveness. The implementation of SPMI served as the independent variable, while teacher performance and madrasah principal leadership were treated as dependent variables. These relationships were examined using Spearman's rho correlation

analysis because the data were measured using ordinal-scale questionnaires and the analysis aimed to determine both the strength and direction of the relationships among variables.

Table 7. Relationship between SPMI Implementation and Teacher Performance

Variable	Spearman's rho (r)	Sig. (2-tailed)	Interpretation
SPMI Implementation → Teacher Performance	0.624	0.000	Strong Positive Relationship

The correlation analysis demonstrates a statistically significant positive relationship between SPMI implementation and teacher performance. The Spearman's rho coefficient of 0.624 exceeds the critical value ($r_{\text{table}} = 0.195$), while the significance value ($p = 0.000$) is well below the 0.05 threshold. Therefore, the alternative hypothesis (H_{a1}) is accepted, indicating that better implementation of SPMI is associated with higher levels of teacher performance. The magnitude of the coefficient suggests a strong positive relationship, implying that quality assurance practices are closely linked to teachers' professional planning, instructional implementation, classroom evaluation, and continuous professional development.

Table 8. Relationship between SPMI Implementation and Madrasah Principal Leadership

Variable	Spearman's rho (r)	Sig. (2-tailed)	Interpretation
SPMI Implementation → Principal Leadership	0.530	0.000	Moderate-to-Strong Positive Relationship

The relationship between SPMI implementation and madrasah principal leadership was likewise found to be statistically significant. The correlation coefficient ($r = 0.530$) is greater than the critical value (0.195) and accompanied by a significance level of 0.000, confirming that the observed relationship is statistically meaningful. Accordingly, the second alternative hypothesis (H_{a2}) is accepted. The positive coefficient indicates that stronger implementation of SPMI is associated with more effective leadership practices, including strategic vision, stakeholder participation, professional support, and the development of a sustainable quality culture within public madrasahs.

Collectively, these findings demonstrate that SPMI implementation is positively associated with both teacher performance and madrasah principal leadership. However, the relationship between SPMI and teacher performance ($r = 0.624$) is stronger than that between SPMI and principal leadership ($r = 0.530$). This suggests that internal quality assurance practices have a more direct influence on teachers' professional activities than on principals' leadership behaviours. In practical terms, teachers are more immediately involved in implementing quality standards through lesson planning, classroom instruction, assessment, and professional development. In contrast, principals' leadership encompasses broader managerial and organizational responsibilities that may be influenced by additional institutional and contextual factors.

A consistent pattern emerges from the correlation analysis. Both correlation coefficients are positive and statistically significant ($p < 0.001$), indicating that improvements in educational performance consistently accompany improvements in SPMI implementation. Although the strength of the relationships differs, neither variable exhibits a weak association with SPMI. This

pattern confirms that internal quality assurance functions not merely as an administrative requirement but as an institutional mechanism that supports continuous improvement in both instructional performance and educational leadership. The stronger association with teacher performance further suggests that the effectiveness of SPMI is most evident at the instructional level, where quality assurance processes are translated directly into teaching practices and learning improvement.

Discussion

The findings of this study demonstrate that implementing the Internal Quality Assurance System (SPMI) is positively associated with teacher performance in public madrasahs in Kuantan Singingi Regency (Henik, 2024; Rambe et al., 2025). The correlation analysis revealed a strong positive relationship ($r = 0.624$), indicating that more effective implementation of the PPEPP cycle is accompanied by higher levels of teachers' professional performance. This finding is consistent with previous studies that identify SPMI as a strategic instrument for strengthening educational quality through systematic planning, implementation, evaluation, control, and continuous improvement (Ahmad et al., 2025; Fauzi et al., 2024). Similarly, Sari and Mulyadi (2023) reported that internal quality assurance enhances teacher professionalism by encouraging structured evaluation and continuous feedback, while Rini et al. (2025) found that quality assurance practices improve instructional quality and professional accountability (Rini & Sudadio, 2026; Sari et al., 2026). The present study extends these findings by providing quantitative evidence that SPMI implementation is not merely an administrative requirement but is directly associated with teachers' instructional performance within the context of public madrasahs.

The stronger relationship observed between SPMI implementation and teacher performance can be explained by teachers' direct involvement in implementing quality assurance standards throughout the educational process. Teachers are the primary actors responsible for translating institutional quality policies into classroom practices through lesson planning, instructional delivery, student assessment, and professional development (Buabeng & Amo-Darko, 2025). Consequently, improvements in SPMI are more immediately reflected in teachers' professional activities than in broader organizational dimensions. This finding supports previous arguments that continuous quality improvement becomes effective only when quality assurance mechanisms are integrated into teachers' daily professional practices (Isa et al., 2024; Stalmeijer et al., 2023). Unlike several earlier studies that primarily described SPMI implementation or focused on accreditation readiness, this research empirically demonstrates the strength of the relationship between institutional quality assurance and teacher performance using correlation analysis. Theoretically, these findings reinforce quality management theory by confirming that sustainable educational quality is fundamentally driven by continuous improvement at the instructional level.

The findings also indicate that SPMI implementation has a statistically significant positive relationship with madrasah principal leadership, with a Spearman's rho coefficient of 0.530. Although this relationship is slightly weaker than that observed for teacher performance, it nevertheless confirms that systematic quality assurance contributes to more effective educational leadership (Ahmad & Ahmed, 2023; Sariakin et al., 2025). These findings are consistent with

previous studies reporting that quality assurance systems strengthen institutional governance, improve strategic decision-making, and support leadership effectiveness within educational organizations (Serrano et al., 2025). However, the present study reveals that leadership is influenced not only by SPMI implementation but also by broader managerial, organizational, and contextual factors. This result differs slightly from studies suggesting that leadership is the dominant determinant of quality assurance implementation, as the present findings indicate a reciprocal relationship in which effective quality assurance simultaneously supports and strengthens leadership practices (Fadhel & Alqurs, 2025).

From a theoretical perspective, this study contributes to the literature by integrating internal quality assurance, teacher performance, and educational leadership into a single empirical framework. Previous studies have generally examined these variables independently, emphasizing either leadership, teacher professionalism, or quality assurance implementation (Jayadi et al., 2025). By examining the relationships among these variables simultaneously, this study provides a more comprehensive understanding of how institutional quality assurance functions as an organizational mechanism that influences multiple dimensions of educational quality. The findings support the principles of Total Quality Management (TQM) and continuous improvement, which argue that sustainable organizational excellence depends on systematic quality assurance involving all institutional members (Ahmad & Ahmed, 2023). Within the context of Islamic education, this study further demonstrates that SPMI should be understood not merely as a compliance mechanism for accreditation but as an integrated management system that promotes professional performance, collaborative leadership, and continuous institutional learning.

The practical implications of this study are equally important for policymakers, madrasah principals, and teachers. For policymakers, the findings suggest that strengthening SPMI implementation should extend beyond fulfilling accreditation requirements by emphasizing continuous monitoring, capacity building, and institutional quality culture. For madrasah principals, the results indicate that effective leadership should prioritize the consistent implementation of the PPEPP cycle, encourage stakeholder participation, and utilize evaluation results as evidence for strategic decision-making (Ahmad et al., 2025; Yuliana et al., 2026). For teachers, integrating quality assurance principles into instructional planning, classroom implementation, assessment, and professional development can contribute directly to improved teaching performance. Overall, this study contributes empirical evidence from public madrasahs in Kuantan Singingi Regency, an educational context that has received limited scholarly attention. Consequently, the study enriches the international literature on educational quality assurance by demonstrating that effective SPMI implementation serves as a strategic foundation for strengthening both teacher performance and leadership effectiveness within Islamic educational institutions.

CONCLUSION

This study concludes that implementing the Internal Quality Assurance System (SPMI) has a significant positive relationship with both teacher performance and madrasah principal leadership in public madrasahs in Kuantan Singingi Regency. The findings reveal that SPMI is more strongly associated with

teacher performance than with principal leadership, indicating that continuous quality assurance practices are translated more directly into teachers' professional activities while simultaneously strengthening institutional leadership. These results demonstrate that SPMI should be understood not merely as an administrative requirement for accreditation but as a strategic quality management system that promotes a sustainable quality culture through the systematic implementation of the PPEPP cycle. This study contributes to the educational quality management literature by integrating internal quality assurance, teacher performance, and principal leadership within a single empirical framework in Islamic educational institutions. However, the study is limited by its correlational design, reliance on self-reported questionnaire data, and focus on public madrasahs within a single regency. Future research should employ longitudinal or mixed-methods approaches, involve more diverse educational settings, and examine additional organizational variables to strengthen understanding of sustainable quality assurance implementation in Islamic education.

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REFERENCES

- Abidin, J., Hilmiyati, F., & Zohriah, A. (2024). Unravelling the Dynamics of Madrasah Principal Performance and Teacher Quality: A Literature Review. *Tarbawi: Jurnal Keilmuan Manajemen Pendidikan*, 10(01), 89–102. <https://doi.org/10.32678/tarbawi.v10i01.9337>
- Abidin, M. Z., Sabirin, M., Hafizah, Y., & Yuseran, M. (2023). Policies and Strategies for Improving the Research and Scientific Publications Quality at State Islamic Religious Colleges in Kalimantan. *Millah: Journal of Religious Studies*, 61–94. <https://doi.org/10.20885/millah.vol22.iss1.art3>
- Ahmad, N., 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*. <https://doi.org/10.21009/jep.v16i2.60714>
- Ahmad, S., & Ahmed, A. (2023). The Role of Leadership in Effective Implementation of Quality Assurance Mechanisms in Higher Education: An Exploratory Case Study From Pakistan. *Quality Assurance in Education*, 31(2), 230–246. <https://doi.org/10.1108/QAE-02-2022-0037>
- Andary, F., & Prabowo, S. L. (2025). The Implementation of Total Quality Management (TQM) to Improve Learning Quality in Schools. *Managere: Indonesian Journal of Educational Management*, 7(4), 399–410. <https://doi.org/10.52627/managere.v7i4.1136>

- Arar, K., Cansoy, R., Türkoğlu, M. E., & Utku, R. (2026). Islamic Educational Leadership: A Systematic Review of Empirical Evidence and a Conceptual Framework. *Journal of Educational Administration and History*. <https://doi.org/10.1080/00220620.2026.2671907>
- Badarudin, B., Tohri, A., Parhanuddin, L., Tatan, T., & Ali, M. (2025). Evaluation of SPMI-Based Education Quality Supervision Programs in Rural and Remote Public Elementary Schools. *Jurnal Kependidikan: Jurnal Hasil Penelitian Dan Kajian Kepustakaan Di Bidang Pendidikan, Pengajaran, Dan Pembelajaran*, 11(2), 897–909. <https://doi.org/10.33394/jk.v11i2.16210>
- 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>
- Fadhel, R., & Alqurs, A. (2025). Enhancing Occupational Health and Safety Through Strategic Leadership: The Mediating Role of Total Quality Management in Hodeida Hospitals, Yemen. *Risk Management and Healthcare Policy*, 823–842. <https://doi.org/10.2147/RMHP.S506296>
- Fauzi, M. A., Alim, N., & Harsoyo, R. (2024). Implementation of the Internal Quality Assurance System (SPMI) as an Effort to Improve the Quality of Higher Education in Indonesia. *Jurnal Pendidikan (Teori Dan Praktik)*. <https://doi.org/10.26740/jp.v9n2.p175-183>
- Galdames-Calderón, M. (2023). Distributed Leadership: School Principals' Practices to Promote Teachers' Professional Development for School Improvement. *Education Sciences*, 13(7), 715. <https://doi.org/10.3390/educsci13070715>
- Henik, U. (2024). Implementation of Education Quality Assurance (PMP) in the Context of Improving PAI Learning Performance. *Urwatul Wutsqo: Jurnal Studi Kependidikan Dan Keislaman*, 13(2), 218–234. <https://doi.org/10.54437/urwatulwutsqo.v13i2.1778>
- Hidayah, N., Syafe'i, I., Fauzan, A., Koderi, K., & Pahrudin, A. (2025). Quality Management Strategies in Facing the Resilience Crisis of Elementary Madrasahs in the 5.0 Era. *Nazhruna: Jurnal Pendidikan Islam*, 8(3), 643–660. <https://doi.org/10.31538/nzh.v8i3.359>
- Isa, M., Neliwati, N., & Hadijaya, Y. (2024). Quality Improvement Management in Teacher Professional Development. *Munaddhomah: Jurnal Manajemen Pendidikan Islam*, 5(2), 136–147. <https://doi.org/10.31538/munaddhomah.v5i2.782>
- Jannana, N. S., & Wijayanti, W. (2025). Cyclical and Value-Based Quality Assurance: A Case Study of a Religious Program at an Islamic Senior High School in Indonesia. *Kharisma*, 4(2), 157–174. <https://doi.org/10.59373/kharisma.v4i2.102>
- Januarni, Y., Zainuri, A., & Yasir, M. G. (2025). Madrasah Management Improving Quality at MIS IT Nurul Ikhwan Cahaya Ananda Palembang. *International Journal of Education and Literature*, 4(1), 123–133. <https://doi.org/10.55606/ijel.v2i1.198>
- Jayadi, U., Ferine, K. F., & Alfahmi, M. (2025). The Influence of Principal Leadership Role and Teacher Professionalism in Improving Teacher Performance in Mataram City With Educational Quality Management as a Mediation Variable. *Berajah Journal*, 4(10), 1749–1760.

- Marpudin, A., & Saleh, M. (2026). Policy Analysis of the Management of Private Islamic Higher Education Institutions in DKI Jakarta and Banten: A Quality and Competitiveness Perspective. *Al Irsyad: Jurnal Studi Islam*, 5(1), 273–288. <https://doi.org/10.54150/alirsyad.v5i1.976>
- Mu'alimin, M., Muhith, A. M., & Hepni, H. (2026). School Principals' and Teachers' Perspectives on School Quality Management in Islamic Schools: Insights From Indonesia. *International Journal of Educational Management*, 40(4), 727–741. <https://doi.org/10.1108/IJEM-05-2025-0387>
- Muhith, A., Munifah, Safi'i, A., Arifin, M., & Mu'alimin. (2026). How Quality Assurance Actors Interpret and Enact Global Standards in Islamic Higher Education. *Quality Management Journal*, 1–11. <https://doi.org/10.1080/10686967.2026.2675299>
- Nurani, N., Pahrudin, A., Yuberti, Y., & Rinaldi, A. (2026). Internal and External Quality Assurance System in Private Islamic Religious Colleges: A Case Study of the Implementation of the PEPPP Cycle at Ma'arif University, Lampung. *Assyfa Journal of Islamic Studies*, 4(1), 375–389.
- Nuryana, A., Yuwana, S., Novaria, R., Fahmi, L., Handoko, R., & Sukristyanto, A. (2026). From Compliance to Learning: Applying Winter's Policy Implementation Model to Accreditation Reform in Indonesian Higher Education. *Veredas Do Direito*. <https://doi.org/10.18623/rvd.v23.n3.4553>
- Rambe, N., Siahaan, A., & Nasution, I. (2025). Implementation of Internal Quality Assurance System in Improving the Quality of Education. *Electronic Journal of Education, Social Economics and Technology*. <https://doi.org/10.33122/ejeset.v6i2.863>
- Rini, P. P., & Sudadio, A. M. (2026). The Mediating Role of Internal Quality Assurance Systems in Linking Work Culture, Job Satisfaction, and Lecturer Performance Behavior. *Journal of Daoist Studies*, 19(S7), 495–512.
- Robita, A., & Dakir, D. (2025). Prophetic Supervision and the Strengthening of Quality Culture in Islamic Education: Evidence From MAN Kotawaringin Timur, Indonesia. *Tarbawi: Jurnal Keilmuan Manajemen Pendidikan*, 11(03), 489–502. <https://doi.org/10.32678/tarbawi.v11i03.11772>
- Rostini, D., Sudrajat, J., Siswadi, A., & Dahlan, R. (2025). Strategic Quality Assurance in Indonesian Islamic Primary Schools: A Multi-Case Study of SDIT Al Biruni and SDIT Aya Sophia Islamic School. *IJOBBA: International Journal of Bunga Bangsa Cirebon*, 4(2), 91–106. <https://doi.org/10.32678/tarbawi.v11i03.11772>