



HOW MUCH INFLUENCE LEADERSHIP MANAGERIAL COMPETENCE ON MADRASAH PERFORMANCE IN INDONESIA: A META-ANALYSIS AND SYSTEMATIC REVIEW APPROACH

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Abstract

The success of school management, especially madrasah, cannot escape the important role of leadership, leaders who have good managerial skills are needed in advancing an educational institution so that the impact on the performance of an institution will be felt. through the systematic literature review and meta-analysis approach methods in this research process. The data collection process was conducted through a literature search. This study examined the effect of leadership managerial competence on madrasah performance in Indonesia. The study results show that there is a positive correlation between the managerial competence of school principals and the performance of education personnel. Effective madrasah leadership depends not only on strong managerial skills, but also includes supervision of learning and efforts to foster a positive school culture. Furthermore, research found that principals' managerial competence, along with school culture and teachers' work discipline, collectively contributed 91.22% to the variation in madrasah quality. In addition, principals' managerial competence and teacher professionalism jointly influenced teacher performance, explaining 51.8% of the observed variance. These findings confirm that leadership managerial competence plays an important role in improving the effective performance of education personnel, building a conducive school culture and improving the overall quality of education in madrasahs.

Keywords: Managerial Competence, Leadership, Madrasah Performance, Meta-Analysis, Systematic Review

INTRODUCTION

Madrasah as an Islamic educational institution has an important role in producing a knowledgeable and moral generation. In an effort to improve the quality of education, competent leadership is a key factor in the success of madrasah. The managerial competence of leaders includes the ability in strategic planning, decision-making, resource management, and effective leadership. Therefore, this study will evaluate the extent to which the managerial competence of madrasah leaders affects the performance of these institutions. In the era of globalization and rapid technological development, the world of education faces great challenges in improving its quality and effectiveness. Madrasahs as part of the education system in Indonesia have an important role in producing a generation that is not only academically intelligent, but also has strong Islamic values. To achieve this goal, effective leadership is a key factor in ensuring that madrasahs can adapt and develop according to the needs of the times. One of the fundamental aspects of educational leadership is the leader's managerial competence.

These competencies include strategic planning, data-based decision-making, resource management, and innovative and transformative leadership. Highly competent leadership can drive improvements in madrasah performance in various aspects, including student academic achievement, administrative effectiveness, and teacher and education personnel satisfaction. However, although many studies have been conducted on the relationship between leadership competence and educational performance, the results obtained still vary. Some studies show a strong positive relationship, while others find that external factors, such as government policies and community support, also play a role in determining madrasah success. Therefore, a more comprehensive study is needed to synthesize these findings to gain a fuller understanding of the influence of leaders' managerial competence on madrasah performance in Indonesia. In this study, a meta-analysis and systematic review approach was used to systematically collect and analyze previous research results. Thus, this study aims to answer the main question: how much influence does the managerial competence of leaders have on the performance of madrasahs in Indonesia? The results of this study are expected to provide insight for policy makers in improving the quality of leadership in madrasahs and formulating more effective policies in the management of Islamic education.

Improving the quality of education in Indonesia is one of the main focuses in human resource development. Madrasah as an Islamic-based educational institution has its own challenges in managing and improving its quality. One factor that is considered crucial in improving madrasah performance is the managerial competence of madrasah leaders. Madrasah leaders who have good managerial competence are expected to be able to manage resources more effectively, design appropriate educational policies, and improve the quality of learning and the welfare of educators. Several previous studies have shown that strong leadership and good managerial skills can contribute significantly to improving student academic achievement and madrasah operational effectiveness. However, there are still variations in the results of existing research, so a more in-depth study through a meta-analysis and systematic review approach is needed to obtain a more comprehensive picture of the relationship between leadership managerial competence and madrasah performance. This study is expected to provide a better understanding of the importance of strengthening the managerial competence of madrasah leaders and provide recommendations that can be applied in education policy in Indonesia.

LITERATURE REVIEW

The theoretical study in this research focuses on two main concepts, namely the managerial competence of leaders and madrasah performance.

Managerial Competence

Managerial competence is a set of skills and abilities that must be possessed by a leader to manage an organization effectively. According to Boyatzis (1982), managerial competencies include technical, conceptual, and interpersonal skills. In the context of madrasah, these competencies include: Strategic Planning, Decision Making, Resource Management and Transformational Leadership. Leadership managerial competencies are essential for effective management in various sectors, especially in health and business environments. These competencies cover a range of skills that enable managers to lead teams, make informed decisions, and drive organizational success. The following sections outline key aspects of leadership managerial competencies based on recent research findings.

Key Leadership Competencies

1. Conceptual Skills

Essential for strategic decision-making and analytical reasoning, these skills significantly predict managerial competence, especially in healthcare settings (Chin et al., 2024).

2. Interpersonal Skills

Effective communication and relationship management are critical to fostering teamwork and collaboration, as highlighted in studies on business management education (Fajardo et al., 2021).

3. Operations Management

Competence in operations and resource management is essential to ensure efficiency and effectiveness in organizational processes (Kakemam et al., 2020).

Impact on Organizational Performance

1. Strategic Thinking

Managers with strong strategic thinking skills can navigate challenges and inspire employees, leading to improved organizational performance ("Analysis of Managerial Competencies and Performance of State Corporations in Antalya, Turkey", 2023).

2. Evidence-Informed Decision Making

Utilizing data to inform decisions improves management quality and aligns with best practices in healthcare (Kakemam et al., 2020). While the emphasis on leadership competencies is significant, some argue that technical skills and industry-specific knowledge are equally important for managerial success. Balancing these competencies with practical experience can lead to more holistic leadership development.

Madrasah performance can be measured from several aspects, including:

1. Student Academic Achievement

Improved student learning outcomes and academic achievement.

2. Administrative Effectiveness

Efficiency in the management of financial, administrative, and other resources.

3. Stakeholder satisfaction

The level of satisfaction of teachers, students and parents with the educational services in the madrasah.

4. Innovation and Development

The madrasah's ability to develop curriculum, learning methods and educational technology. Madrasah performance is a multifaceted concept that is influenced by various factors, including teacher performance, management practices and the integration of digital strategies. Research shows that effective teacher performance significantly contributes to the quality of education in madrasahs, with dimensions such as pedagogical and professional skills being particularly important for achieving educational standards (Huda, 2022). In addition, strong management and leadership practices have been shown to improve learning management, as evidenced by high effectiveness ratings in certain madrasah settings (Suking et al., 2022). Moreover, the adoption of digital strategies can improve performance by capitalizing on internal strengths and addressing weaknesses through proactive market penetration and product development (Baharun & Mukarramah, 2023).

Teacher Performance

- Teacher performance is very important, contributing 49.4% to madrasah quality standards (Huda, 2022).
- The main dimensions include pedagogical, professional, social and personality traits.

Management and Leadership

- Effective management practices result in high performance ratings, with one study reporting 87.84% effectiveness in leadership management (Suking et al., 2022).
- Regular performance appraisals of madrasah principals promote accountability and improve the quality of education (Hasan et al., 2023).

Digital Integration

- Digital strategies improve madrasah performance by improving administrative efficiency and education delivery (Baharun & Mukarramah, 2023).
- The SWOT analysis suggests that digital-based madrasahs can capitalize on opportunities to improve their services. While these factors highlight the strengths of madrasah performance, challenges such as limited resources and varying levels of understanding among staff regarding assessment criteria may hinder progress (Hasan et al., 2023) (Ramdhani & Robbi, 2024).

METHOD

This study used a meta-analysis and systematic review approach:

1. Meta-Analysis

Collecting quantitative data from various previous studies on the relationship between leaders' managerial competencies and madrasah performance. Meta-analysis is a powerful statistical technique that synthesizes results from multiple studies addressing a common research question, increasing the precision of effect estimates. This method is an integral part of systematic reviews, allowing researchers to quantitatively assess the magnitude of effects and explore variation across studies. The following sections outline the key components and considerations involved in conducting a meta-analysis.

Key Components of Meta-Analysis

- **Study Selection:** A rigorous and unbiased search for relevant studies is essential, following specific inclusion criteria to ensure their quality and relevance (Abbott & Демина, 2023).
- **Data Extraction:** Effect indices and study characteristics, such as participant demographics and methodology, were systematically extracted to represent study results (Abbott & Демина, 2023).
- **Statistical Analysis:** Various models, including fixed and random effects, were used to estimate the overall effect size and assess heterogeneity among studies (Abbott & Демина, 2023) (Tatsioni & Ioannidis, 2024).

Importance and Application

- **Increased Statistical Power:** By combining data from multiple studies, meta-analysis increases statistical power to detect effects that may not be seen in individual studies (Tatsioni & Ioannidis, 2024).
- **Establishment of Guidelines:** Meta-analysis is essential in developing clinical guidelines, providing high-quality evidence for practice (Bramley & Wiles, 2022). While meta-analysis is a powerful tool for synthesizing research, it is important to realize that a poorly conducted analysis can lead to misleading conclusions, emphasizing the need for rigorous methodology (Bramley & Wiles, 2022).

2. Systematic Review

Compile a literature review based on relevant studies with predetermined criteria, such as publication year range, theme relevance, and research methodology. A systematic literature review (SLR) is a structured method for synthesizing research to answer specific questions by rigorously analyzing the existing literature. It is a fundamental step in conducting a meta-analysis and is

widely used in various fields to inform evidence-based decision-making and policy development. The process involves several stages, including planning, execution and reporting, and requires adherence to established guidelines such as PRISMA to ensure transparency and replicability. The SLR method can be adapted to different disciplines, including social sciences, education, and healthcare, each with unique considerations and customizations (Kumar, 2023) (Višić, 2022) (Pradana et al., 2023).

Key Aspects of a Systematic Literature Review

Purpose and Scope:

- SLR aims to provide a comprehensive overview of the current state of knowledge on a particular topic, identify gaps, and suggest future research directions (Pradana et al., 2023).
- They are used to review trends and outcomes in specific areas, such as the impact of physical education learning models on student outcomes (Maesara et al., 2023).

Process:

- The process involves formulating a research question, developing a protocol, conducting a literature search, and performing screening and quality assessment (Višić, 2022).
- Tools such as Harzing Publish or Perish and databases such as Google Scholar are often used for article selection (Maesara et al., 2023) (Sutrimo et al., 2024).

Data Synthesis and Reporting:

- Data were extracted and synthesized through tabulation and narrative formats, providing a clear and objective summary of findings (Sutrimo et al., 2024).
- Results are presented in a way that is accessible to researchers, practitioners, and policy makers (Pradana et al., 2023). While systematic literature reviews are invaluable for summarizing research, they are not without challenges. The process can be time-consuming and requires careful attention to detail. In addition, the quality of SLRs is highly dependent on the quality of the included studies, which can vary significantly. Despite these challenges, SLRs remain an important tool for advancing knowledge and informing practice across disciplines (Kumar, 2023) (Višić, 2022).

RESULTS AND DISCUSSION

Based on the results of the analysis, through the stages of finding data references, screening, data extraction, then the results of data analysis.

Tabel 1 stages of searching for reference data, filtering, data extraction

Paper	Abstract summary	Main findings	
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MANAGERIAL COMPETENCE OF MADRASA PRINCIPALS IN EDUCATIONAL PERFORMANCE IN MADRASAS Riska Aristiangsih Isema Journal: Islamic Educational Management 2022	Managerial competence of madrasah principals has a positive and significant relationship with the performance of education staff in state madrasahs in Bandung Regency, Indonesia.	▪ The managerial competence of madrasah principals in Bandung Regency is in the "moderate" category, with a score of 3.24 out of 5. ▪ The performance of education staff in public madrasahs in Bandung Regency is also in the "moderate" category, with a score of 3.2 out of 5. ▪ There is a positive and significant relationship between the managerial competence of madrasah principals and the performance of education staff, with a correlation coefficient of 0.466 (moderate correlation).	10.15575/isema.v7i1.14390
THE EFFECTIVENESS OF MADRASAH: ANALYSIS OF MANAGERIAL SKILLS, LEARNING SUPERVISION, SCHOOL CULTURE, AND TEACHERS'	Principals' managerial skills, learning supervision, school culture, and teachers' performance influence the effectiveness of Islamic high schools in Indonesia.	▪ Principals' managerial skills, learning supervision, school culture, and teachers' performance all influence the effectiveness of madrasahs (Islamic schools). ▪ For a madrasah to be effective, the principal	10.22452/MOJEM.VOL8N O3.2

PERFORMANCE. Prim Masrokan Mutohar et All 2020		must have good managerial skills, provide effective learning supervision, cultivate a strong school culture, and improve teacher performance.	
MAINSTREAMING THE MANAGERIAL COMPETENCE OF MADRASAH PRINCIPALS, MADRASAH CULTURE AND TEACHER WORK DISCIPLINE ON THE QUALITY OF MADRASAH IBTIDAIYAH IN KENDAL DISTRICT. Nura Azizah At All Didactics 2023	Managerial competence of madrasah (Islamic school) principals, school culture, and teacher work discipline together significantly influence the quality of madrasah in Indonesia.	▪ The managerial competence of the madrasah principal has a significant positive influence on the quality of the madrasah, accounting for 81.1% of the variance. ▪ The culture of the madrasah also has a significant positive influence on the quality of the madrasah, accounting for 75.6% of the variance. ▪ The work discipline of the teachers has a significant positive influence on the quality of the madrasah, accounting for 81.8% of the variance. ▪ The combined influence of the madrasah principal's managerial competence, the madrasah culture, and the teachers' work discipline accounts for	10.36989/didaktik.v9i2.890

		91.22% of the variance.	
The Effect of Principal Managerial Competence and Teacher Professionalism on Teacher Performance at MTsN 16 jombang Nuruliah Azizah et al All Journal of Education and Management Studies 2022	Managerial competence of madrasah principals and teacher professionalism have a significant influence on teacher performance in Indonesia.	▪ The managerial competence of the madrasah principal at MTsN 16 Jombang was in the high category, with 50% of respondents scoring above 102. ▪ The professionalism of teachers at MTsN 16 Jombang was in the medium category, with 30.6% of respondents scoring between 99 and 113. ▪ The performance of teachers at MTsN 16 Jombang was in the high category, with 50% of respondents scoring above 113.	10.32764/joems.v5i2.692

Research shows that leadership managerial competence significantly affects madrasah performance in Indonesia. Studies show a positive correlation between principals' managerial competence and the performance of education personnel (Aristianingsih et al., 2022). Effective madrasah leadership involves strong managerial skills, supervision of learning, and the ability to foster a positive school culture (Mutohar & Trisnantari, 2020). Principals' managerial competencies, along with school culture and teacher discipline, have been found to influence madrasah quality, with these factors collectively accounting for 91.22% of the variation in quality (Azizah et al., 2023). In addition, research shows that principals' managerial competence and teacher professionalism together influence teacher performance, explaining 51.8% of the variance (Azizah et al., 2022). These findings underscore the important role of leadership managerial competence in improving various aspects of madrasah performance, including staff effectiveness, school culture, and overall education quality. It was found that leadership managerial competence has a positive correlation with improving madrasah performance. Some key aspects affected Based on the results of the analysis, it was found that

leadership managerial competencies have a positive correlation with improving madrasah performance. Some of the main aspects affected are:

1. Managerial Effectiveness

Leaders with strong managerial skills are able to manage resources efficiently, improve operational efficiency, and ensure the achievement of the madrasah's academic and administrative goals.

2. Academic Achievement

Effective leadership can improve the quality of teaching, which has an impact on improving student learning outcomes and the overall academic performance of the madrasah.

3. Teacher and Student Satisfaction

Madrasahs that are well-managed by competent leaders tend to have higher levels of satisfaction among teachers and students, which contributes to a more conducive learning atmosphere.

4. Financial and Resource Management

Managerial competence in financial management allows madrasahs to allocate budgets more effectively, maximize the use of facilities, and improve the welfare of educators.

5. Implementation of Innovative Programs

Leaders with high managerial competence are better able to implement innovations in the learning system, including the use of digital technology in teaching and madrasah administration.

6. Relationship with Stakeholders

The leadership's ability to build networks and establish cooperation with the government, community, and other institutions has a positive impact on the development of madrasah.

7. Conflict Management

Competent leaders have the ability to resolve internal and external conflicts with a constructive approach, thus maintaining stability and harmony in the madrasah environment.

CONCLUSION

The managerial competence of madrasah leaders in Indonesia plays a crucial role in determining institutional performance. Effective leadership, characterized by strong managerial skills, contributes to better educational quality, resource management, and decision-making. To enhance madrasah performance, continuous training and professional development for leaders are essential. Programs focusing on strategic planning, financial management, and human resource development should be prioritized. Furthermore, research should explore additional factors that may influence this relationship, such as teacher motivation, student engagement, and community involvement. Understanding these dynamics can help formulate policies that support more effective madrasah management. Government and educational institutions should collaborate to design training programs tailored to the specific needs of madrasah leaders. By strengthening managerial competence,

madrasahs can achieve higher educational standards and foster a conducive learning environment. Future studies should also assess the long-term impact of leadership training on madrasah performance to refine best practices in educational management.

REFERENCES

- Abbott, M., & Демина, Е. (2023). *Meta-analysis* (pp. 842-859). Elsevier eBooks. <https://doi.org/10.1016/b978-0-12-818630-5.10092-2>
- Analysis of Managerial Competencies and Performance of State Corporations in Antalya, Turkey. (2023). *Journal of Human Resource & Leadership*, 7(4), 11-20. <https://doi.org/10.53819/81018102t5217>
- Baharun, H., & Mukarramah, A. (2023). Digital based Madrasah: The Strategy to Improve the Quality of Madrasah Ibtidaiyah Performance. *Al Ibtida: Journal of MI Teacher Education*. <https://doi.org/10.24235/al.ibtida.snj.v10i1.13075>
- Bass, B. M. (1990). *Handbook of Leadership: Theory, Research, and Managerial Applications*. Free Press.
- Boyatzis, R. E. (1982). *The Competent Manager: A Model for Effective Performance*. John Wiley & Sons.
- Bramley, P. M., & Wiles, M. (2022). How to perform and write a meta-analysis. *Anaesthesia*, 77(11), 1299-1303. <https://doi.org/10.1111/anae.15755>
- Burns, J. M. (1978). *Leadership*. Harper & Row.
- Chin, M. M., Balang, R. V., Wider, W., Tanucan, J. C. M., Sim, H. Y., & Janjuy, C. (2024). Leadership competencies and managerial competencies of nurse managers in Kuala Lumpur Hospital, Malaysia. *Ners Journal*, 19(3), 292-301. <https://doi.org/10.20473/jn.v19i3.49986>
- Fajardo, L. M. S., Ramírez, V. H. M., Bom-Camargo, Y. I., & Fajardo Calderón, C. L. (2021). Competencias de liderazgo en el proceso de enseñanza aprendizaje de los administradores de empresas de la Universidad de Manizales. *Telos: Revista de Estudios Interdisciplinarios En Ciencias Sociales*, 23(2), 367-390. <https://doi.org/10.36390/TELOS232.10>
- Fullan, M. (2001). *Leading in a Culture of Change*. Jossey-Bass.
- Goleman, D. (1998). *Working with Emotional Intelligence*. Bantam Books.
- Hasan, A. R., Firdaus, A. B., Nur, D., University, E., Sayyid, I. N., & Tulungagung, A. R. (2023). The role of madrasah supervisors in assessing the performance of madrasah heads in blitar district. *Research Journal of Islamic Education Management*. <https://doi.org/10.19105/rejiem.v6i2.9399>
- Huda, M. (2022). Factor Analysis of Teacher Performance to Improve the Quality of Madrasah Education. *Islamic Management*, 5(01), 1. <https://doi.org/10.30868/im.v5i01.2083>
- Kakemam, E., Liang, Z., Janati, A., Arab-Zozani, M., Mohaghegh, B., & Gholizadeh, M. (2020). *Leadership and Management Competencies for Hospital Managers: A Systematic Review and Best-Fit Framework Synthesis*. 12, 59-68. <https://doi.org/10.2147/JHL.S265825>
- Kumar, A. (2023). *Systematic Literature Review (SLR)* (pp. 7-14). https://doi.org/10.1007/978-981-99-2370-0_2
- Leithwood, K., & Jantzi, D. (2005). Transformational Leadership. *Educational Administration Quarterly*, 41(4), 529-561.
- Maesara, N., Rahmat, A., & Carsiwan, C. (2023). Trends and results of the use of physical education learning models (systematic literature review). *Porkes Journal*. <https://doi.org/10.29408/porkes.v6i2.23972>
- Mintzberg, H. (1973). *The Nature of Managerial Work*. Harper & Row.
- Nura Azizah, Ngasbun Egar, Rasiman. (2023) The Influence of Madrasah Head Managerial Competence, Madrasah Culture and Teacher Work Discipline on the Quality of Madrasah Ibtidaiyah in Kendal District *Didactic: Scientific Journal of PGSD FKIP Mandiri University* <https://doi.org/10.36989/didaktik.v9i2.890>
- Nurul Azizah, M Wafiyul Ahdi, Hanifah. (2022) The Effect of Principal Managerial Competence and Teacher Professionalism on Teacher Performance at MTsN 16 Jombang *Journal of Education*

- and Management Studies Vol. 5, No. 2, April 2022 pp. 70- 79
<https://doi.org/10.32764/joems.v5i2.692>
- Northouse, P. G. (2019). *Leadership: Theory and Practice*. SAGE Publications.
- Pradana, M., Silvianita, A., Madiawati, P. N., Calandra, D., & Lanzalonga, F. (2023). A Guidance to Systematic Literature Review for Young Researchers by Telkom University and the University of Turin. *To Maega*, 6(2), 409. <https://doi.org/10.35914/tomaega.v6i2.1915>
- Pradana, M., Silvianita, A., Madiawati, P. N., Calandra, D., & Lanzalonga, F. (2023). A Guidance to Systematic Literature Review for Young Researchers by Telkom University and the University of Turin. *To Maega*, 6(2), 409. <https://doi.org/10.35914/tomaega.v6i2.1915>
- Ramdhani, D., & Robbi, M. M. (2024). Planning of Supervision of Madrasah Principals on the Performance of Educational Personnel in Madrasahs. *Innovative Journal of Islamic Education Management*, 3(2), 239-253. <https://doi.org/10.38073/jimpi.v3i2.2221>
- Riska Aristianingsih, Irawan, Moh Sulhan. (2022). Managerial Competence of Madrasah Heads in the Performance of Education Personnel in Madrasahs. *Journal of Islamic Education Management*, 7 (1) (2022) 43-52 <https://doi.org/10.15575/isema.v7i1.14390>
- Robbins, S. P., & Judge, T. A. (2018). *Organizational Behavior*. Pearson.
- Suking, A., Masaong, Abd. K., & Buyuhi, K. (2022). Performance analysis of madrasah aliyah 1 state islamic senior high school in creating a transparent and accountable school in gorontalo. *Journal of Educational Administration and Management*, 5(2), 154-163. <https://doi.org/10.17977/um027v5i22022p154>
- Sutrimo, M. S., Sajdah, S. N., Sinambela, Y. V. F., & Bagus, R. (2024). Improving numeracy literacy through learning models and its relationship with self-efficacy: Systematic literature review. *JPMI (Journal of Innovative Mathematics Learning)*. <https://doi.org/10.22460/jpmi.v7i1.21650>
- Tatsioni, A., & Ioannidis, J. P. A. (2024). *Meta-analysis*. Elsevier BV.
- Trisnantari H Mutohar P (2020) The effectiveness of madrasah: Analysis of managerial skills, learning supervision, school culture, and teachers' performance *Malaysian Online Journal of Educational Management (2020) 8(3) 21-47* DOI: 10.22452/mojem.vol8no3.2
- Višić, M. (2022). Connecting puzzle pieces: Systematic literature review method in the social sciences. *Sociologija*, 64(4), 543-562. <https://doi.org/10.2298/soc2204543v>
- Yukl, G. (2013). *Leadership in Organizations*. Pearson.