

ISLAMIC SPIRITUAL E-LEADERSHIP INTEGRATION MODEL FOR EDUCATION QUALITY IMPROVEMENT IN THE DIGITAL ERA

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Abstract: This research explores the integration of Islamic spiritual leadership and e-leadership in improving the quality of education in madrasahs. Islamic spiritual leadership emphasizes ethical, moral and spiritual values as the basis for decision-making and daily actions. In the context of madrasahs, this leadership not only aims to achieve academic excellence but also create an environment that supports learners' spiritual development. This research supports the theory that effective leaders in Islamic education inspire and motivate through exemplary worship and good morals, as exemplified by the Prophet Muhammad. E-leadership utilizes information and communication technology to facilitate the learning process and school management. Using PLS-SEM analysis, this study found that madrasah principals who combine spiritual values with technological capabilities can create a school culture that is more adaptive and responsive to change. The analysis showed that Islamic spiritual leadership significantly affects the quality of education, with the mediating influence of E-leadership. The integration of these two approaches enables madrasahs to remain relevant in the digital age, increase accessibility and flexibility in the learning process, and ensure education rooted in strong Islamic values. This research provides a foundation for the development of effective leadership models to improve the quality of education in madrasahs in the digital era.

Keywords: E-Leadership, Education Quality, Islamic Spiritual Leadership.

Introduction

Along with technical skills, leadership in madrasahs must also be based on strong spiritual values.¹ Spiritual leadership involves setting good moral and ethical examples and instilling students with deep Islamic values.

¹ Siswanto Siswanto, "Strengthening Spiritual Leadership in Preserving Religious Culture and Local Wisdom in Madrasah," *AL-TANZIM: Jurnal Manajemen Pendidikan Islam* 6, no. 3 (July 9, 2022): 907–20, <https://doi.org/10.33650/al-tanzim.v6i3.3357>.

Spiritual leadership ensures that the education provided does not only focus on academics, but also on building noble character and good morals. The integration of E-Leadership and spiritual leadership is crucial to creating a holistic and balanced educational environment.

To improve the quality of Islamic education in the digital era, madrasahs need to adopt an approach that integrates Islamic spiritual leadership with E-Leadership. This reintegration involves using digital technology to support and strengthen spiritual values in education.² For example, the madrasah principal can use digital platforms to disseminate information containing Islamic values, hold online recitation sessions, and monitor students' progress in real-time.

By integrating E-Leadership and spiritual leadership, madrasahs can improve the quality of education in various ways. First, the use of technology can increase accessibility and flexibility in the learning process.³ Strong spiritual leadership can help shape good student character, which in turn will improve the quality of educational output.⁴ This combination can create a more dynamic and innovative learning environment, which is able to prepare students to face future challenges.⁵

So far, research on the integration of Islamic spiritual leadership and e-leadership in improving the quality of education in the context of madrasah using PLS-SEM has not been conducted in Indonesia. For example, Aristyasari's research only explores the synergy of spiritual intelligence with progressive values, social intelligence and emotional intelligence.⁶ Explicitly, this research does not discuss the exact extent of the relationship or role of spiritual and digital on improving the quality of Islamic education. Similar to

² Yunita Aristyasari, "Synergizing Progressive Values and Social, Emotional, Spiritual Intelligence in Islamic Education in The Digital Era," in *Proceedings of the Third International Conference on Sustainable Innovation 2019 – Humanity, Education and Social Sciences (IcoSIHESS 2019)* (Proceedings of the Third International Conference on Sustainable Innovation 2019 – Humanity, Education and Social Sciences (IcoSIHESS 2019), Yogyakarta, Indonesia: Atlantis Press, 2019), <https://doi.org/10.2991/icosihess-19.2019.75>.

³ Ana Raquel Carvalho and Carlos Santos, "Developing Peer Mentors' Collaborative and Metacognitive Skills with a Technology-Enhanced Peer Learning Program," *Computers and Education Open* 3 (December 2022): 100070, <https://doi.org/10.1016/j.caeo.2021.100070>.

⁴ M. Sugeng Sholehuddin, Miftah Mucharomah, MSI 17 Pabean, Pekalongan, Indonesia, miftahmucharomah@gmail.com, et al., "Developing Children's Islamic Spiritual Intelligence in the Digital Age: Indonesian Family Education Methods," *International Journal of Instruction* 16, no. 1 (January 1, 2023): 357–76, <https://doi.org/10.29333/iji.2023.16120a>.

⁵ Aristyasari, "Synergizing Progressive Values and Social, Emotional, Spiritual Intelligence in Islamic Education in The Digital Era," 2019.

⁶ Aristyasari.

the research of Sholehuddin et al,⁷ There is also insufficient elaboration on the significance between spirituality, digital and madrasah quality comprehensively, despite using a mixed method approach.

Therefore, this research is very important as a complement to previous research. This is because this research will not only find a model about the synergy of spirituality and e-leadership in improving the quality of madrasah in the digital era using PLS-SEM. However, this research will also serve as a future foundation for madrasahs in adapting to changes in advanced information technology (AIT) and artificial intelligence (AI) while maintaining Islamic spiritual values. On the other hand, this research on E-Leadership Integration and spiritual leadership also offers an effective approach to improving the quality of madrasah education in the digital era. Thus, madrasahs can create a holistic, innovative, and sustainable educational environment, and can give birth to a generation that is intellectually intelligent and morally noble.

This study uses the Partial Least Squares Structural Equation Modeling (PLS-SEM) method to analyze the data obtained. PLS-SEM was chosen because of its ability to handle models with complex structures and limited sample sizes. The measurement model used evaluates convergent and discriminant validity and construct reliability through indicators such as factor loading, rho-A, composite reliability, Cronbach's Alpha, and Average Variance Extracted (AVE). The analysis showed that all variables, namely Islamic Education Leadership, E-Leadership, and Education Quality, had excellent validity and reliability values.⁸

Furthermore, structural evaluation of the model through R Square (R^2) and Q Square (Q^2) values showed strong predictive ability, while f^2 analysis identified the magnitude of influence between variables. Goodness of Fit (GoF) of the model showed a good fit with the data, supported by SRMR, d_ULS, d_G, Chi-Square, and NFI values. Hypothesis testing confirmed the significant effect of Islamic Education Leadership on E-Leadership and the effect of E-Leadership on Education Quality, as well as the indirect effect of Islamic Education Leadership on Education Quality through E-Leadership, expressed through significant coefficient values, T-

⁷ Sholehuddin, Mucharomah, MSI 17 Pabean, Pekalongan, Indonesia, miftahmucharomah@gmail.com, et al., "Developing Children's Islamic Spiritual Intelligence in the Digital Age."

⁸ Joseph F. Hair et al., "When to Use and How to Report the Results of PLS-SEM," *European Business Review* 31, no. 1 (January 14, 2019): 2–24, <https://doi.org/10.1108/EBR-11-2018-0203>.

Statistics, and P-Values. Overall, the PLS-SEM method is effective in uncovering the complex relationships between the research variables.⁹

To qualify the calculation of an adequate sample size in this study, researchers used the A-Priori Sample Size for Structural Equation Models Formulas software¹⁰ developed based on the Cohen¹¹ and Westland¹² formulation. This software is designed to help researchers determine the optimal sample size by considering the size effect, the power of the T-statistic test, and the desired level of significance. The Cohen formulation¹³ provides comprehensive guidance on sample size determination considering these variables, while the Westland formulation¹⁴ provides a customized approach for structural equation models, including the number of latent variables and indicators. Using this software, researchers can ensure that the sample size selected is large enough to detect the expected effects in the research model with a high level of confidence, thereby increasing the validity and reliability of the research findings.

The minimum sample size analysis shows that to detect an effect with an effect size of 0.3, a statistical power of 0.8, and a significance level of 0.05, at least 119 samples are required. However, to ensure the structure of the model involving 3 latent variables and 18 observed variables, a minimum of 200 samples is required. Therefore, the recommended sample size is 200 to ensure the model can be estimated correctly and the expected effects can be reliably detected.

The recommended sample size (200) was taken from the official website of the Ministry of Religious Affairs of the Republic of Indonesia through the Madrasah Online application, which can be accessed at appmadrasah.kemenag.go.id. The data includes information on the teacher population in three different schools, namely MAN 2 Malang, MTsN 1 Malang, and MIN 1, with details on the number of male and female teachers in each school, which are categorized as favorites due to their superior achievements, so the data from these schools provide a representative and high-quality picture. By using data from official and trusted sources such as

⁹ Joseph F. Hair et al., "When to Use and How to Report the Results of PLS-SEM," *European Business Review* 31, no. 1 (January 14, 2019): 2–24, <https://doi.org/10.1108/EBR-11-2018-0203>.

¹⁰ D.S Soper, "A-Priori Sample Size for Structural Equation Models Formulas," 2024.

¹¹ Jacob Cohen, *Statistical Power Analysis for the Behavioral Sciences*, 2. ed., reprint (New York, NY: Psychology Press, 2009).

¹² J. Christopher Westland, "Lower Bounds on Sample Size in Structural Equation Modeling," *Electronic Commerce Research and Applications* 9, no. 6 (November 2010): 476–87, <https://doi.org/10.1016/j.elerap.2010.07.003>.

¹³ Cohen, *Statistical Power Analysis for the Behavioral Sciences*.

¹⁴ Christopher Westland, "Lower Bounds on Sample Size in Structural Equation Modeling."

the Ministry of Religious Affairs, researchers can ensure that the research results are based on valid and accountable information, enhancing the credibility and overall quality of the research.

The variables used in this study consist of three variables, seven dimensions, and 18 statement items as follows:

Table 1. Variables, Dimensions, and Research Items

Islamic Spiritual Leadership¹⁵		Item Code
<i>Inner Life</i>	I feel that deep awareness of God (Allah) through fitrah and tafakkur is an important aspect of my spiritual life.	IL1
	Deep awareness of God helps madrasah leaders make better and wiser decisions.	IL2
	Faith-based leadership helps me to build a clear vision for the madrasah.	IL3
Islamic Leadership Foundations	I believe that a strong and clear vision is the key to creating an excellent madrasah.	FI1
	I think that putting people's interests first is an important foundation in my interactions with the community and students.	FI2
	For me, an honest leader is one of the important factors in moving the madrasah forward.	FI3
E-Leadership¹⁶		
Communication and Interaction	Leaders use information technology to ensure that messages and information are easily understood and received by teachers and staff.	KI1
	They assess the extent to which technology facilitates collaboration among team members, including the frequency and quality of interactions.	KI2
Data-driven Decision Making	I think madrasah leaders must have the ability to use analytical tools to process data that supports informative and appropriate decision-making.	PD1
	They evaluate the effectiveness of existing systems in managing information and knowledge that can be accessed and used by all members of the organization.	PD2
Adaptability and Innovation	The ideal madrasah leader is one who is able to measure the extent to which he/she and the organization adapt quickly to technological change.	AI1

¹⁵ Eleftheria Egel and Louis W. Fry, "Spiritual Leadership as a Model for Islamic Leadership," *Public Integrity* 19, no. 1 (January 2, 2017): 77–95, <https://doi.org/10.1080/10999922.2016.1200411>.

¹⁶ Bruce J. Avolio et al., "E-Leadership: Re-Examining Transformations in Leadership Source and Transmission," *The Leadership Quarterly* 25, no. 1 (February 2014): 105–31, <https://doi.org/10.1016/j.leaqua.2013.11.003>.

	They assess the extent to which technology is used to encourage and facilitate creativity and innovation within the team or organization.	AI2
Education Quality¹⁷		
Leadership	Our madrasah leaders have a clear vision and mission that is well communicated to all staff, which contributes to the quality of graduates.	K1
	Management consistently supports efforts to improve the quality of education in our madrasah.	K2
	Our madrasah leaders encourage participation and initiative from all staff in the decision-making process.	K3
Customer Focus	Our madrasah always strives to understand and meet students' needs.	FP1
	Feedback from students is regularly collected and used for service improvement in the madrasah.	FP2
	We provide adequate services and are responsive to student complaints.	FP3

Islamic Spiritual Leadership: An Overview

Spiritual leadership is an important element in Islamic education, especially in efforts to shape the character and morals of students. Spiritual leadership emphasizes ethical values, faith, and devotion to God as the basis for decision-making and action.¹⁸ In the context of madrasahs, spiritual leadership aims not only to achieve academic performance, but also to create an environment that supports learners' spiritual development. Through this approach, spiritual leadership helps to create a strong school culture, where Islamic values become the main guideline in carrying out daily tasks and responsibilities. According to Al-Mawardi in his book "Adab al-Dunya wa al-Din," good leaders are those who uphold the principles of sharia and enforce justice and truth in their every action.¹⁹

In the context of madrasah, spiritual leadership aims not only to achieve academic performance, but also to create an environment that supports the spiritual development of all school members. In the Islamic perspective, effective leaders are those who are able to inspire and motivate their followers through exemplary worship and morality. Madrasah leaders

¹⁷ Edward Sallis, *Total Quality Management in Education*, 3rd ed (London: RoutledgeFalmer, 2002).

¹⁸ Louis W Fry, "Toward a Theory of Spiritual Leadership," *The Leadership Quarterly* 14, no. 6 (December 2003): 693–727, <https://doi.org/10.1016/j.leaqua.2003.09.001>.

¹⁹ Al Ibn Muammad Mward, *Kitab Adab Al-Dunya Wa-al-Din* (New York City: Legare Street Press, 2022).

are expected to guide teachers, staff and students in practicing Islamic teachings consistently. By integrating religious values in every aspect of school operations, madrasahs can ensure that all educational activities focus not only on academic achievement, but also on developing strong moral and spiritual values. This is in line with the principles taught by the Prophet Muhammad, who always emphasized the importance of noble morals and piety in every aspect of life.

In the Islamic perspective, an effective leader is one who can inspire and motivate their followers through exemplary worship and good moral behavior. This concept is deeply rooted in Islamic teachings and can be understood through various sources such as the Quran, Hadith (sayings and actions of Prophet Muhammad), and scholarly interpretations. In the Quran, leadership qualities are emphasized in many verses. For example, in Surah Al-Imran (3:159), Allah commands Prophet Muhammad to forgive his followers, consult with them in various matters, and make decisions after listening to their opinions. This shows the importance of consultation, empathy and inclusiveness in effective leadership.

Hadith literature provides further insight into the characteristics of good leaders. In a Hadith narrated by Abu Huraira, Prophet Muhammad stated, "The best of men are those who live long and have good deeds." This Hadith emphasizes the importance of setting an example and demonstrating righteous behavior to inspire others. Islamic scholars such as Imam Ghazali and Ibn Taymiyyah have outlined the qualities of effective leadership in Islam, emphasizing the importance of piety, humility, justice, and compassion in a leader. They argue that a leader's actions must be aligned with Islamic principles to earn the trust and respect of his followers.

In Islam, worship (ubudiyah) and morality (akhlaq) are interrelated aspects of a believer's life. A leader who excels in worship by diligently fulfilling his religious obligations will set a positive example for his followers.²⁰ Likewise, living out noble character traits such as honesty, integrity and kindness will enhance a leader's credibility and influence in the eyes of his followers. Effective leaders in Islam not only lead by example, but also seek to inspire and motivate their followers towards goodness. By demonstrating sincerity in worship, showing compassion to others, and upholding ethical standards, a leader can instill a sense of purpose and commitment among his followers.

²⁰ Abu Hamid Ghazzālī, *Kitāb Al-'ilm: The Book of Knowledge: Book 1 of The Ihya' 'Ulūm al-Dīn, The Revival of The Religious Sciences*, The Fons Vitae Ghazali Series (Louisville, KY: Fons Vitae, 2015).

E-Leadership and its Impact on Education Quality

The digital era has brought significant changes in various aspects of life, including in the world of education. This transformation requires madrasahs to integrate digital technology in the learning and management process to remain relevant and competitive. In addition to digital capability through Islamic spiritual leadership, one of the emerging concepts in this context is e-leadership, which refers to the ability of educational leaders to use information and communication technology in facilitating teaching and learning processes and school administration.²¹ E-leadership not only improves operational efficiency, but also enables the implementation of more innovative and interactive learning.

Previous research shows that the integration of e-leadership and spiritual leadership can improve the overall quality of education. For example, a study by Sholehuddin et al.,²² found that principals who combine technological capabilities with spiritual values are able to create a school culture that is more adaptive and responsive to change. In addition, research by Aristyasaki²³ showed that a leadership approach that integrates these two elements can increase learner motivation and engagement, which in turn improves learning outcomes.

Thus, to prepare madrasahs for the challenges of the digital era, a reintegration of e-leadership and spiritual leadership is needed. Through this approach, madrasahs can develop educational programs that are not only technology-based, but also remain rooted in strong Islamic values. This will ensure that learners are not only academically and technologically prepared, but also have good character and morals to face life in the future.

In the context of education quality, the concept of Total Quality Management (TQM) introduced by Edward Sallis²⁴ can be applied to improve the overall quality of education. Edward Sallis emphasizes the importance of planning, control, assurance, and continuous quality improvement in education. In Islamic education, this can be applied by designing a curriculum that not only focuses on academic knowledge but also on the spiritual and moral development of students. Quality control in

²¹ Bruce J. Avolio et al., "E-Leadership: Re-Examining Transformations in Leadership Source and Transmission," *The Leadership Quarterly* 25, no. 1 (February 2014): 105–31, <https://doi.org/10.1016/j.leaqua.2013.11.003>.

²² Sholehuddin, Mucharomah, MSI 17 Pabean, Pekalongan, Indonesia, miftahmucharomah@gmail.com, et al., "Developing Children's Islamic Spiritual Intelligence in the Digital Age."

²³ Aristyasaki, "Synergizing Progressive Values and Social, Emotional, Spiritual Intelligence in Islamic Education in The Digital Era," 2019.

²⁴ Edward Sallis, *Total Quality Management in Education*, 3rd ed (London: RoutledgeFalmer, 2002).

Islamic education involves continuous evaluation of the learning process and its outcomes to ensure that Islamic values are consistently applied. Quality assurance ensures that all aspects of education, from teaching to administration, conform to high Islamic standards.²⁵

Sallis' approach is also relevant to the integration of e-leadership and spiritual leadership in Islamic education. E-leadership utilizes technology to strengthen communication and management within the Islamic education environment, enabling a wider and more effective dissemination of Islamic values and teachings through digital platforms. Spiritual leadership, on the other hand, emphasizes the importance of integrity, ethics and moral values in leadership, which are very much in line with Islamic principles. By combining these two approaches, Islamic education can achieve higher quality, not only in terms of academic achievement but also in shaping students' strong and virtuous characters. This model allows Islamic education to remain relevant and effective in the digital age while retaining the essence of the spiritual and moral values on which its teachings are based.

Measurement Model Evaluation Results

Table 2. Convergent Validity

Variable	Item	Factor Loading	<i>rho-A</i>	Composite Reliability	Cronbach's Alpha	AVE
Islamic Education Leadership	IL1	0,949	0.972	0.977	0.972	0.876
	IL2	0,931				
	IL3	0,935				
	FI1	0,929				
	FI2	0,938				
	FI3	0,932				
<i>E-Leadership</i>	KI1	0,950	0.972	0.977	0.971	0.875
	KI2	0,924				
	PD1	0,939				
	PD2	0,935				
	A1	0,939				
Education Quality	A2	0,925	0.970	0.976	0.970	0.870
	K1	0,936				
	K2	0,925				
	K3	0,944				

²⁵ Husna Amin et al., "Issues and Management of Islamic Education in a Global Context," *Nidhomul Haq: Jurnal Manajemen Pendidikan Islam* 6, no. 3 (December 13, 2021): 608–20, <https://doi.org/10.31538/ndh.v6i3.1808>.

FP1	0,931
FP2	0,924
FP3	0,936

Based on the convergent validity results displayed in the table, it can be explained that the three variables under study, namely “Islamic Education Leadership,” “E-Leadership,” and “Education Quality,” have values that indicate a very high level of internal consistency and reliability. Each variable was measured through several items with strong factor loading values, rho-A, composite reliability, Cronbach's Alpha, and Average Variance Extracted (AVE).

The variable “Islamic Education Leadership” was measured through six items (IL1, IL2, IL3, FI1, FI2, FI3) with factor loading values ranging from 0.929 to 0.949. The rho-A value of 0.972, composite reliability of 0.977, Cronbach's Alpha of 0.972, and AVE of 0.876 indicate that this variable has very high internal consistency and reliability.

The “E-Leadership” variable was also measured through six items (KI1, KI2, PD1, PD2, A1, A2) with factor loading values ranging from 0.924 to 0.950. The rho-A value of 0.972, composite reliability of 0.977, Cronbach's Alpha of 0.971, and AVE of 0.875 indicate a very high level of internal consistency and reliability, almost comparable to the variable “Islamic Education Leadership.”

In terms of reliability and internal consistency, “Islamic Educational Leadership” and “E-Leadership” have almost equivalent values with the highest rho-A and composite reliability values of 0.972 and 0.977, respectively. However, “Islamic Education Leadership” is slightly superior in AVE value of 0.876 compared to “E-Leadership” which has an AVE of 0.875.

Meanwhile, “Quality of Education” has a slightly lower but still very high reliability value, with a rho-A value of 0.970, a composite reliability of 0.976, and an AVE of 0.870. This shows that although this variable is highly reliable, it has a slightly lower value compared to the other two variables.

Overall, the three variables showed very good results in the reliability and internal consistency measures, with “Islamic Educational Leadership” and “E-Leadership” having a slight edge in some aspects compared to “Educational Quality.”

Table 3. Discriminant Validity

	Islamic Education Leadership	E-Leadership	Education Quality
AI1	0.908	0.939	0.931
AI2	0.872	0.925	0.899
FI1	0.929	0.880	0.874
FI2	0.938	0.912	0.905
FI3	0.932	0.878	0.881
FP1	0.899	0.928	0.931
FP2	0.873	0.910	0.924
FP3	0.882	0.913	0.936
IL1	0.949	0.911	0.909
IL2	0.931	0.902	0.895
IL3	0.935	0.891	0.891
K1	0.893	0.917	0.936
K2	0.889	0.931	0.925
K3	0.903	0.932	0.944
KI1	0.912	0.950	0.937
KI2	0.877	0.924	0.925
PD1	0.907	0.939	0.928
PD2	0.895	0.935	0.927

Based on the results of the discriminant validity analysis presented in the table, it can be concluded that each of the constructs analyzed has good discriminant validity. The table shows that each item has a higher factor loading on the measured construct compared to other constructs.

For the Islamic Spiritual Leadership construct measured by items IL1, IL2, IL3, FI1, FI2, and FI3, all factor loading values are within the range of 0.929 to 0.949, indicating good convergent validity. Factor loadings for these items on the other constructs (E-Leadership and Education Quality) were lower, supporting discriminant validity.

The E-Leadership construct measured by items AI1, AI2, KI1, KI2, PD1, and PD2 also showed strong convergent validity with factor loading values ranging from 0.91 to 0.95. The factor loading values on the other constructs (Islamic Spiritual Leadership and Education Quality) are lower, indicating that E-Leadership is a distinct construct.

Similarly, for the Education Quality construct measured by items K1, K2, K3, FP1, FP2, and FP3, the factor loading values ranged from 0.895 to

0.944, indicating that the items are good indicators for this construct. The lower factor loading values on the other constructs support the existence of good discriminant validity.

Overall, these results indicate that each of the constructs (Islamic Spiritual Leadership, E-Leadership, and Education Quality) are stand-alone constructs with adequate discriminant validity, indicated by higher factor loading values on relevant constructs and lower on irrelevant constructs.

Structural Model Evaluation

Table 4. R² and Q² Evaluation Results

	R Square	Q Square
E-Leadership	0.917	0.796
Education Quality	0.978	0.845

The table shows the R Square and Q Square values for two variables, namely “E-Leaders” and “Education Quality”. The R Square (R²) value for E-Leaders is 0.917, which means that 91.7% of the variation in the dependent variable can be explained by the independent variables related to E-Leaders. Meanwhile, the R² value for Education Quality is 0.978, which indicates that 97.8% of the variation in the dependent variable can be explained by the independent variables associated with Education Quality. The Q Square (Q²) value, which measures the predictive relevance of the model, shows that E-Leadership has a Q² value of 0.796, while Quality of Education has a Q² value of 0.845. Both values indicate that the model has strong predictive relevance, with Quality of Education showing a slightly higher value than E-Leaders. Overall, these results show that the models for E-Leaders and Quality of Education are very good at explaining variation and have high predictive ability.

Table 5. f² Evaluation

	E-Leadership	Islamic Education Leadership	Education Quality
E-Leadership			3.074
Islamic Education Leadership	10.985		0.030

The table results show the relationship between three variables namely E-Leadership, Islamic Spiritual Leadership, and Education Quality. E-Leadership has a positive influence on Education Quality with a value of

3.074, indicating that an increase in E-Leadership can improve the quality of education. In addition, there is a very strong relationship between Islamic Spiritual Leadership and E-Leadership with a value of 10.985, indicating that Islamic Spiritual Leadership significantly affects E-Leadership. However, the relationship between Islamic Spiritual Leadership and Quality of Education is very weak with a value of 0.03, indicating that Islamic Spiritual Leadership has no significant influence on Quality of Education in the context under study. Overall, E-Leadership has more influence on improving the Quality of Education than Islamic Spiritual Leadership.

Table 6. Goodness of Fit (GoF)

	Saturated Model	Estimated Model
SRMR	0.022	0.022
d_ ULS	0.085	0.085
d_ G	0.604	0.604
Chi-Square	590.792	590.792
NFI	0.907	0.907

Based on the goodness of fit analysis, the model used to measure the effect of Islamic Spiritual Leadership and E-Leadership on Education Quality shows a good fit with the data. The low SRMR value (0.022) indicates a good level of model fit, indicating that the Islamic Spiritual Leadership and E-Leadership variables are able to explain the variability in Education Quality quite accurately. In addition, the low d_ ULS (0.085) and d_ G (0.604) values indicate that the model has minimal mismatch, reinforcing the validity and accuracy of the relationships studied.

Although the Chi-Square value (590.792) appears large, it is acceptable in the context of a large sample size, especially since the other fit indices show positive results. Finally, the NFI value (0.907), which is higher than 0.90, reinforces the argument that the model has a good fit with the data. Overall, the results of this analysis indicate that Islamic Spiritual Leadership and E-Leadership have a significant influence on Educational Quality, with E-Leadership showing a more dominant influence. Both variables prove to be relevant and important in the context of improving education quality.

Table 7. Direct Effects

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
E-Leadership -> Mutu Pendidikan	0.903	0.874	0.101	8.915	0.000

Kepemimpinan Spiritual Islam -> E-Leadership	0.957	0.957	0.017	56.065	0.000
Kepemimpinan Spiritual Islam -> Mutu Pendidikan	0.090	0.118	0.102	0.878	0.381

The analysis shows that E-Leadership has a significant influence on Education Quality with a coefficient of 0.903, T-Statistic of 8.915, and P-Value of 0. This value indicates that the influence of E-Leadership on Education Quality is very strong and statistically significant. Furthermore, Islamic Spiritual Leadership has a highly significant influence on E-Leadership with a coefficient of 0.957, T-Statistic of 56.065, and P-Value of 0. This indicates that Islamic Spiritual Leadership plays an important role in improving E-Leadership. However, the direct effect of Islamic Spiritual Leadership on Educational Quality is relatively small with a coefficient of 0.09, a T-Statistic of 0.878, and a P-Value of 0.381, meaning this effect is not statistically significant. Overall, these results indicate that E-Leadership is a significant mediator in the relationship between Islamic Spiritual Leadership and Education Quality. Although Islamic Spiritual Leadership has an insignificant direct influence on Quality of Education, the indirect influence through E-Leadership is very strong and significant. In other words, to improve the Quality of Education, focusing on developing E-Leadership through Islamic Spiritual Leadership is a more effective strategy.

Table 8. Specific Indirect Effect

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STD EV)	P Values
Kepemimpinan Spiritual Islam -> E-Leadership -> Mutu Pendidikan	0.864	0.836	0.088	9.779	0.000

The specific indirect effect results show that the indirect effect of Islamic Spiritual Leadership on Education Quality through E-Leadership is very significant. The coefficient value of 0.864 indicates that an increase in Islamic Spiritual Leadership will indirectly improve Education Quality through the mediating role of E-Leadership. The T-Statistic of 9.779, which is well above the significant threshold (usually 1.96 for 5% significance level), indicates that this effect is very strong and statistically significant. The P-Value of 0 confirms that this result is significant at a very high level of

confidence (typically 99% or higher). In addition, the sample mean of 0.836 and standard deviation of 0.088 demonstrate the consistency and reliability of these estimates.

Education Quality Improvement through Islamic Spiritual E-Leadership Integration Model

The results of this study indicate a strong and significant relationship between Islamic Spiritual Leadership, E-Leadership, and Education Quality. Theoretically, this study supports the understanding that good and effective leadership in the context of Islamic education can improve educational quality through the mediating role of E-Leadership.²⁶ This discussion will explore these key findings in the context of existing literature and relevant theory.

Islamic Spiritual Leadership is an important element in Islamic education,²⁷ especially in efforts to shape the character and morals of students. According to Al-Mawardi in his book “*Adab al-Dunya wa al-Din*,” good leaders are those who uphold the principles of sharia and uphold justice and truth in their every action.²⁸ This is relevant in the context of this madrasah leadership research, where spiritual leadership aims not only to achieve academic achievement but also to create an environment that supports learners' spiritual development.

Hadith literature also provides insight into the characteristics of good leaders. For example, in a Hadith narrated by Abu Huraira, the Prophet Muhammad states, “The best of men are those who live long and have good deeds.” This emphasizes the importance of exemplary worship and morals. In the Islamic perspective, an effective leader is one who can inspire and motivate his followers through exemplary worship and good moral behavior. Scholars such as Imam Ghazali and Ibn Taymiyyah emphasized the importance of piety, humility, justice, and compassion in leadership.

By integrating religious values in every aspect of school operations, madrasahs can ensure that all educational activities focus not only on academic achievement but also on developing strong moral and spiritual values. This is in line with the principles taught by the Prophet Muhammad,

²⁶ Siswanto, “Strengthening Spiritual Leadership in Preserving Religious Culture and Local Wisdom in Madrasah.”

²⁷ Amirul Syah, “Pengaruh Kepemimpinan Spiritual, Kualitas Kehidupan Kerja, Etos Kerja Islami Terhadap Kinerja Pegawai Melalui Organizational Citizenship Behavior (Studi Kasus Pegawai Bank Sumut Syariah Di Kota Medan)” (Disertasi, Medan, UIN Sumatera Utara, 2020), <http://repository.uinsu.ac.id/9114/>.

²⁸ Mward, *Kitab Adab Al-Dunya Wa-al-Din*.

who always emphasized the importance of noble morals and piety in every aspect of life.

The digital era has brought significant changes in various aspects of life, including in the world of education. This transformation requires madrasas to integrate digital technology in the learning and management process to remain relevant and competitive. The concept of e-leadership, which refers to the ability of educational leaders to use information and communication technology, becomes very important in this context.

Previous research has shown that the integration of e-leadership and spiritual leadership can improve the overall quality of education. For example, a study by Sholehuddin et al.²⁹ found that principals who combine technological capabilities with spiritual values are able to create a school culture that is more adaptive and responsive to change. Research by Aristyasari³⁰ also shows that a leadership approach that integrates these two elements can increase learner motivation and engagement, which in turn improves learning outcomes.

On the other hand, Bruce J. Avolio et al.,³¹ in the concept of e-leadership, focus on how advanced information technology affects leadership dynamics and how leadership can leverage such technology to achieve organizational goals. In the context of madrasah, this concept is applied to explore how leaders can use technology to reinforce spiritual values and improve the efficiency and effectiveness of the educational process.³²

In the context of education quality, the concept of Total Quality Management (TQM) introduced by Edward Sallis³³ can be applied to improve the overall quality of education. Sallis emphasizes the importance of planning, control, assurance and continuous quality improvement in education. This approach is relevant for developing a model that integrates e-

²⁹ M. Sugeng Sholehuddin, Miftah Mucharomah, Pekalongan MSI 17 Pabean Indonesia, miftahmucharomah@gmail.com, et al., "Developing Children's Islamic Spiritual Intelligence in the Digital Age: Indonesian Family Education Methods," *International Journal of Instruction* 16, no. 1 (January 1, 2023): 357–76, <https://doi.org/10.29333/iji.2023.16120a>.

³⁰ Yunita Aristyasari, "Synergizing Progressive Values and Social, Emotional, Spiritual Intelligence in Islamic Education in The Digital Era," in *Proceedings of the Third International Conference on Sustainable Innovation 2019 – Humanity, Education and Social Sciences (IcoSIHESS 2019)* (Proceedings of the Third International Conference on Sustainable Innovation 2019 – Humanity, Education and Social Sciences (IcoSIHESS 2019), Yogyakarta, Indonesia: Atlantis Press, 2019), <https://doi.org/10.2991/icosihess-19.2019.75>.

³¹ Avolio et al., "E-Leadership," February 2014.

³² Elihami Elihami, "An Innovation of Character of Islamic Religious Studies Education towards Education 4.0 in Elementary School: Bibliometric Reviews," *Jurnal Basicedu* 6, no. 1 (December 17, 2021): 146–56, <https://doi.org/10.31004/basicedu.v6i1.1832>.

³³ Sallis, *Total Quality Management in Education*, 2002.

leadership in the use of information technology in leadership with spiritual leadership that emphasizes ethical, moral and spiritual values in Islamic education that are relevant to the results of this study.³⁴

Sallis' approach is also relevant to the integration of e-leadership and spiritual leadership in Islamic education. By combining these two approaches, Islamic education can achieve higher quality, not only in terms of academic achievement but also in forming strong and virtuous student characters.³⁵ This model allows Islamic education to remain relevant and effective in the digital age while retaining the essence of the spiritual and moral values on which its teachings are based.³⁶

Egel and Fry's theoretical findings on the "Inner Life" dimension of Islamic spiritual leadership,³⁷ which includes deep awareness of God through *fitrah* and *tafakkur*, as well as the foundation dimension of Islamic leadership based on faith, vision and altruistic compassion, will be used as the conceptual framework in this study. These principles can be integrated with e-leadership in the digital era to create *madrasahs* that excel in spirituality and technology.

Overall, this study supports existing literature and relevant theories, showing that the combination of Islamic Spiritual Leadership and E-Leadership can improve the quality of education in *madrasahs*. This integration allows *madrasahs* to effectively utilize digital technology while maintaining and strengthening the spiritual and moral values that are the foundation of Islamic education.

Conclusion

The results of this study show that the integration of Islamic spiritual leadership and e-leadership can significantly improve the quality of education in *madrasahs*. Islamic spiritual leadership, which emphasizes ethical, moral and spiritual values, forms a strong basis for daily decision-making and actions. In the context of *madrasahs*, this leadership not only aims to achieve academic performance, but also creates an environment that supports learners' spiritual development. This research supports the theory that effective leaders in Islamic education are those who are able to inspire and

³⁴ "Technology Acceptance Model in Islamic Education (TAMISE) for Digital Learning: Conceptual Framework Proposal," *Canadian Journal of Educational and Social Studies* 3, no. 4 (2023), <https://doi.org/10.53103/cjess.v3i4.153>.

³⁵ Aristryasari, "Synergizing Progressive Values and Social, Emotional, Spiritual Intelligence in Islamic Education in The Digital Era," 2019.

³⁶ Sholehuddin, Mucharomah, MSI 17 Pabean, Pekalongan, Indonesia, miftahmucharomah@gmail.com, et al., "Developing Children's Islamic Spiritual Intelligence in the Digital Age."

³⁷ Egel and Fry, "Spiritual Leadership as a Model for Islamic Leadership."

motivate through exemplary worship and good morals, as exemplified by the Prophet Muhammad SAW.

E-leadership, which utilizes information and communication technology, plays an important role in facilitating the learning process and school management. This study found that madrasah principals who combine technological capabilities with spiritual values are able to create a school culture that is more adaptive and responsive to change. The analysis showed that Islamic spiritual leadership has a significant influence on the quality of education, with the mediating effect of E-leadership. The integration of these two approaches enables madrasahs to remain relevant in the digital age, increase accessibility and flexibility in the learning process, and ensure that the education provided is rooted in strong Islamic values. Thus, this study provides a foundation for the development of an effective leadership model to improve the quality of education in madrasahs in the digital era.

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