

DIGITAL LEADERSHIP TRANSFORMATION IN QUALITY MANAGEMENT OF ISLAMIC EDUCATION IN THE SOCIETY 5.0 ERA

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ABSTRACT

Digital transformation in Islamic educational institutions often faces a dilemma between technological modernization and the preservation of Islamic values. This study aims to analyze the concept of digital leadership in Islamic education, map the challenges of its transformation, describe best practices, and formulate reinforcement strategies to enhance quality management. Utilizing a library research method, this study examines and synthesizes relevant literature. The findings reveal that digital leadership in Islamic education is an integrative approach combining four core digital competencies (digital vision, behavior, expertise, and mindset) with Islamic leadership principles (*amanah*, *shura*, and *uswah hasanah*). In practice, digital transformation confronts four interconnected systemic challenges: infrastructure limitations, low human resource digital literacy, organizational culture resistance, and policy gaps. Nevertheless, best practices across several madrasahs demonstrate that an incremental approach through LMS utilization, administrative digitalization (EMIS/RDM), and peer mentoring effectively drives change. This study concludes that strengthening quality management requires an Islamic value-based transformational-digital leadership that continuously integrates HR capacity building with quality assurance systems.

Keywords: Digital Leadership, Quality Management, Islamic Education, Transformational Leadership, Islamic Values

1. Introduction

The emergence of Society 5.0 marks a shift in societal paradigms toward digitally integrated systems to solve various social issues, including those within the educational sector (Rusman et al., 2023). This era demands that educational institutions move beyond merely adopting technological devices in isolation; instead, they must comprehensively transform their governance frameworks, ranging from planning and organizing to digital data-based evaluation (Damayanti et al., 2024). Digitalizing governance has become an urgent necessity because 21st-century competencies including leadership capabilities, technological literacy, and critical thinking have become prerequisites for institutional success in competing amid technological disruption (Nadifa & Ambarwati, 2024).

Islamic educational institutions, including madrasahs, integrated Islamic schools, and Islamic higher education institutions (PTKI), are also caught in the vortex of this transformation. As institutions that combine general education with Islamic values, Islamic educational institutions are required to adapt to technological developments without losing their religious identity (Ekasari et al., 2021). The madrasah digitalization program launched by the government serves as a concrete manifestation of these demands; however, its success heavily relies on leadership at the institutional level capable of translating digitalization policies into daily managerial practices (Fatkurohim et al., 2025).

Nevertheless, digital transformation in Islamic educational institutions continues to face significant gaps. A number of studies indicate that human resource readiness to

implement digital leadership in educational settings remains limited, characterized by a lack of understanding among leaders and educational staff regarding the principles of digital transformation (TA'LIM: Jurnal Studi Pendidikan Islam, in an SLR study on digital leadership). Technological infrastructure limitations, low human resource digital literacy, and organizational culture resistance also remain primary challenges hindering the optimization of digital-based quality management in many Islamic educational institutions, particularly in areas with unequal technological access (Sari et al., 2023).

Amid these challenges, the urgency of technologically adaptive leadership becomes increasingly evident yet this adaptation must not compromise the Islamic values that constitute the core identity of these institutions. Ideally, digital leadership in Islamic education should not stand alone as a purely technical competence; rather, it must synergize with spiritual leadership rooted in prophetic values such as honesty, trustworthiness (*amanah*), and exemplary behavior (*uswah hasanah*) (Habibulloh et al., 2025; Arifin, 2019). This spiritual-technological leadership paradigm is believed to be capable of meeting the needs of Islamic educational institutions to remain managerially relevant while consistently preserving their Islamic identity (Qomar, 2007; Basyit, 2019).

Based on this background, examining the transformation of digital leadership in the quality management of Islamic education in the Society 5.0 era is essential. This study seeks to map the forms of transformation, the challenges faced, and the leadership reinforcement strategies capable of balancing digitalization demands with the preservation of Islamic values in educational institutions.

2. Research Method

This study employs a qualitative descriptive approach using a library research method, selected because it aims to synthesize theories and findings from previous studies without requiring primary field data (Creswell & Poth, 2018). The data sources consist of primary sources (national and international journal articles published between 2020 and 2026) and secondary sources (books, institutional reports, and conference proceedings) relevant to digital leadership and Islamic education quality management. Data were collected using documentation techniques via literature searches on academic databases such as Google Scholar, SINTA, and Garuda. The inclusion criteria comprised thematic relevance, publication year ranging from 2018 to 2026, and peer-reviewed/credible indexing status. Data analysis was conducted using content analysis and thematic synthesis techniques: data reduction, theme categorization, cross-source synthesis, and conclusion drawing, aligning with the principles of an integrative review that combines empirical and conceptual findings (Dhollande et al., 2021; Fatkurohim et al., 2025). Credibility was maintained through source triangulation and prioritizing peer-reviewed literature.

3. Results and Discussion

The Concept of Digital Leadership in Islamic Education

Before mapping practical challenges and strategies for digital transformation in the field, it is crucial to establish a solid theoretical understanding regarding the conceptualization of digital leadership within Islamic educational institutions. This section outlines the definition boundaries, core characteristics, and the ways in which

technical-digital competencies interact and harmonize with established Islamic leadership values.

Definition and Characteristics of Digital Leadership

Digital leadership can generally be defined as a leader's ability to manage, utilize, and integrate digital technology into an organization to achieve strategic goals (Wujarso et al., 2023). In the context of educational institutions, digital leadership goes beyond mastering technological tools; it encompasses the leader's capability to guide digital transformation in alignment with the institution's strategic plan (Fauzi, 2025). A review of the literature demonstrates that digital leadership possesses four core characteristics: (1) digital vision the ability to formulate technology-based direction for change; (2) digital behavior consistency in adopting a digital culture through leadership actions; (3) digital expertise mastery of technical competencies to manage information systems and learning platforms; and (4) digital mindset openness to continuous innovation and change (*Jurnal Basicedu*). These four characteristics are interconnected and serve as the foundation for educational leaders in navigating technological disruption without losing strategic focus.

Furthermore, digital leadership acts as a catalyst accelerating sustainable educational transformation by strengthening digital culture, developing human resources, and fostering innovation (Fauzi, 2025). Digital leaders are required to think and collaborate beyond spatial and temporal constraints, while possessing the ability to monitor and manage work effectively in virtual environments. These characteristics distinguish digital leadership from conventional leadership models that rely more heavily on face-to-face interaction and direct supervision.

Relevance to Islamic Leadership Values (*Amanah*, *Shura*, *Uswah Hasanah*)

The characteristics of digital leadership outlined above do not contradict Islamic leadership principles; rather, they can reinforce their implementation when properly integrated. Leadership in Islam is understood as a trust (*amanah*) that must be accounted for, not merely an administrative authority or a symbol of power (Rochim & Muttaqien, 2025). This principle of *amanah* aligns with digital leadership demands that emphasize data accountability and transparency in technology-driven decision-making—both requiring leaders to act honestly, fairly, and responsibly regarding every policy enacted.

The principle of consultation (*shura*) also finds relevance in contemporary digital leadership practices. While digital leadership emphasizes data-driven decision-making and cross-stakeholder collaboration, *shura* in Islam underscores participation, openness, and respect for collective consensus prior to policy formulation (Umam, 2024). Integrating these two principles allows Islamic educational leaders to make technology-based decisions without ignoring togetherness and procedural justice, which are hallmarks of Islamic management.

Meanwhile, exemplary character (*uswah hasanah*) serves as a bridge connecting the technical competencies of digital leadership with the moral-spiritual demands of Islamic education. Leaders of Islamic educational institutions must not only master technology but also serve as role models in using it ethically and responsibly. This reflects the leadership of Prophet Muhammad (PBUH), who led with honesty (*siddiq*), trustworthiness (*amanah*), advocacy (*tabligh*), and wisdom (*fathanah*) (Marjuni, 2021).

Thus, digital leadership in Islamic education is ideally positioned not as an isolated competence, but as an extension of established Islamic values wherein technological mastery serves as a means, not the ultimate goal of leadership.

A synthesis of these studies indicates that the ideal digital leadership transformation in Islamic education operates through an integrative approach: digital competencies (vision, behavior, expertise, and mindset) are anchored on the foundational values of *amanah*, *shura*, and *uswah hasanah*. Consequently, Islamic educational institutions can adapt to modern demands without becoming detached from their Islamic roots.

Mapping Challenges of Digital Transformation in Islamic Educational Institutions

Literature indicates that digital transformation across Islamic educational institutions madrasahs, Islamic schools, boarding schools (*pesantren*), and Islamic universities faces four interconnected systemic challenges: infrastructure limitations, low human resource digital literacy, organizational culture resistance, and policy/budgetary gaps.

Technological Infrastructure Limitations

Disparities in access to information and communication technology (ICT) infrastructure remain a fundamental hurdle, particularly in regions lacking stable internet connectivity. This gap widens when comparing urban and rural areas, where remote Islamic educational institutions face severe difficulties in accessing adequate hardware and connectivity (Sari & Rukmana, 2021). These limitations pertain not only to hardware availability but also to network reliability and sustainable technology operational funding at the institutional level.

Low Human Resource Digital Literacy

In addition to infrastructure, human resource readiness specifically among school principals/headmasters and teachers remains a major issue regarding digital literacy. Many leaders and educators lack a deep understanding of strategically utilizing technology for managerial and instructional activities (Zakiyyah, 2024). This condition is exacerbated by a lack of continuous training, causing digitalization efforts to stall at basic technical adoption such as transferring manual data into digital systems—without foundational grasp over data governance or information management system optimization (Judijanto et al., 2024).

Organizational Culture Resistance

The third challenge is more fundamental: organizational culture resistance to change. In some traditional Islamic educational institutions, digitalization is perceived as a threat to classical teaching methods and values, such as the *kitab kuning* study traditions in *pesantren* (Darwin & Sefudin, 2020). This resistance is often the most critical hurdle, as it shapes stakeholders' underlying attitudes toward change itself—influencing their willingness to attend training, adopt new systems, or support leadership-led digital policies.

Policy Gaps and Digital Curriculum Flexibility

Another factor affecting digital transformation effectiveness is the gap between national policy and field implementation realities. Digital curricula require flexibility to adapt rapidly to evolving technology; however, this flexibility is difficult to achieve without consistent policy support, HR readiness, and infrastructure (Widjajanti, 2019).

Without synergy among these three elements, digital policies in Islamic education risk remaining normative discourse without comprehensive implementation.

Interconnected Nature of Challenges

These four challenges do not exist in isolation; rather, they reinforce one another: infrastructure limitations diminish the impact of HR training, low digital literacy leads to suboptimal infrastructure management, and cultural resistance can block tech acquisition and training policies (Huda, 2025). These findings emphasize that managing digital transformation in Islamic educational institutions cannot be handled piecemeal. It demands a holistic approach integrating infrastructure enhancement, HR capacity building, cultural transformation, and policy support—with visionary leadership serving as the binding force.

Opportunities and Best Practices

Despite these challenges, literature reveals that several Islamic educational institutions have successfully leveraged digital transformation to enhance management and learning quality. These opportunities manifest through management information systems, Learning Management Systems (LMS), and adaptive leadership strategies that drive gradual, sustainable change.

Digitalization Opportunities for Quality Management

Administrative digitalization opens major opportunities for Islamic educational institutions to boost efficiency, effectiveness, and accountability. Utilizing national Ministry of Religious Affairs systems—such as the Education Management Information System (EMIS) and Madrasah Digital Report Cards (RDM)—has proven to simplify academic data management and accelerate self-services like online student admissions (Case study of MTs Al I'annah Kosambi, Karawang). Similar opportunities exist in developing digital teaching materials, where maximizing technology fosters student independence and responsiveness despite technical limitations that can be overcome incrementally.

Best Practices in LMS Implementation for Learning

Several madrasahs have demonstrated best practices in adopting LMS as a backbone for blended learning. For instance, a case study at MAN 1 Jombang highlighted successful leadership by the school principal in pioneering a "Digital Class" pilot project integrated with an internal LMS, supported by smartboard infrastructure and firm device-use policies to maintain a conducive learning environment. The persuasive leadership style applied triggered a multiplier effect in raising teacher digital literacy through peer mentoring schemes, while data-based monitoring helped mitigate competence gaps among staff (Case study of MAN 1 Jombang, *Jurnal Manajemen Pendidikan*). Similar practices were observed at MAN Kota Batu, where LMS supported blended learning models covering material delivery, assignment management, evaluations, and online interaction.

Adaptive Leadership Strategies as Supporting Factors

The success of these practices relies heavily on adaptive leadership capable of navigating digitalization dynamics. Effective digital instructional leadership is characterized by strategies such as digital supervision integration, peer collaboration reinforcement, and leveraging LMS data for instructional decision-making (*An Najah*).

Ultimately, successful digital transformation in madrasahs depends on the principal's technological competence and ability to foster an innovative, change-responsive workplace culture (Repindo, Jamrizal, & Hakim, 2025). This digital leadership model demonstrates that successful digitalization is not merely about system sophistication, but rather about the leader's capacity to manage change incrementally, participatively, and with a continuous focus on educational quality improvement.

Synthesis: From Challenges to Opportunities

These best practices reveal a consistent pattern: successful digitalization in Islamic educational institutions typically begins with small, measurable steps—ranging from basic administrative digitalization and limited LMS piloting to capacity building via peer mentoring which are subsequently expanded as stakeholder trust and competence grow. This incremental pattern appears to be the most realistic approach amid the infrastructure and literacy constraints facing many Islamic educational institutions in Indonesia, serving as the framework for digital leadership reinforcement strategies.

Digital Leadership Reinforcement Strategies for Quality Management

Based on the mapping of challenges and opportunities, literature indicates that reinforcing digital leadership in Islamic educational institutions requires three complementary strategies: enhancing digital competencies of leaders and staff, integrating technology with quality assurance systems, and developing an Islamic value-based transformational-digital leadership model.

Enhancing Digital Competencies of Leaders and Educators

The first strategy targets human resource capacity as the cornerstone of digitalization success. School/madrasah principals are required to act as digital transformers who build a clear digital vision while enhancing teacher and staff digital competencies through continuous professional development (Nellitawati & Ginanjar, 2026). Ideally, capacity building should extend beyond technical training toward building an adaptive, data-driven learning culture, ensuring all institutional members actively participate in transformation rather than remaining passive policy subjects.

Integrating Technology with Quality Assurance Systems

The second strategy emphasizes linking technology directly to educational quality assurance systems rather than treating it as a standalone administrative tool. When a leader's personal commitment to quality is structurally integrated into management systems, that commitment becomes a permanent organizational trait (Anugerah et al., 2026). In this context, digital management information systems (such as EMIS, monitoring dashboards, or LMS) should function as continuous quality evaluation instruments whose data directly informs managerial decisions, rather than serving as passive data repositories.

Islamic Value-Based Transformational-Digital Leadership Model

The third strategy forming the core of this study involves developing a leadership model that merges the five dimensions of transformational leadership (digital vision, intellectual stimulation, inspirational motivation, individualized consideration, and idealized influence) with Islamic spiritual principles. Principals who integrate these dimensions contribute significantly to strengthening technology-based learning, boosting teacher competencies, and building an adaptive institutional culture rooted in Islamic

values (Maryati, 2025). Leaders in this model play a dual role: as change agents driving digital innovation, and as value guardians ensuring transformation does not erode institutional Islamic identity.

This spiritual-transformational leadership model effectively sustains a quality culture through authentic role modeling, structured spiritual guidance, and reframing professional tech use as an act of worship (*ibadah*) (Anugerah et al., 2026). Thus, reinforcing digital leadership in Islamic education is not framed as a technology project detached from the institutional religious mission, but as an extension of that mission in an evolving era.

Strategy Synthesis

The three strategies HR competency building, technology-quality assurance integration, and Islamic value-based transformational leadership—must be executed simultaneously. Competency building without quality integration risks generating digital skills that fail to improve educational services; conversely, digital quality assurance systems without principled leadership risk degrading into administrative formalities. Therefore, success hinges on a leader's ability to weave these strategies into a coherent framework that is managerially strategic and spiritually meaningful.

4. Conclusion

The findings and discussion demonstrate that digital transformation in Islamic educational institutions represents a complex dynamic bridging technological, structural, and cultural-religious dimensions. Synthesizing theoretical foundations, challenge mappings, and field best practices yields a clear overview of the required leadership trajectory and strategies. The main points and strategic implications of this study are summarized below: Integrative Concept: Digital leadership in Islamic educational institutions extends beyond technical mastery (digital vision, behavior, expertise, and mindset); it functions as an extension of Islamic leadership values (*amanah*, *shura*, and *uswah hasanah*). Technology serves to enhance accountability and participation without setting aside moral-spiritual grounding. Systemic Challenges Map: Digital transformation faces four interconnected challenges: technological infrastructure limitations, low human resource digital literacy, organizational culture resistance (particularly in traditional settings), and policy/curriculum flexibility gaps.

Opportunities and Best Practices: Digitalization succeeds when executed incrementally such as optimizing management information systems (EMIS/RDM), piloting LMS for blended learning, and conducting peer mentoring driven by adaptive leadership. Quality Reinforcement Strategies: Accelerating Islamic educational quality requires three simultaneous strategies: data-driven HR capacity building, technology integration into quality assurance systems, and applying an Islamic value-based transformational-digital leadership model that views technology utilization as both professional duty and *ibadah*.

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