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AI-Driven Quality Management and Digital Transformation in Islamic Education: A Systematic Review

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ABSTRACT

This study aims to synthesize existing research on artificial intelligence (AI) enabled quality management and digital transformation in education and to examine their implications for Islamic education. A systematic literature review (SLR) was conducted using Scopus as the primary database. Relevant publications were identified through keywords related to artificial intelligence, quality, education, and leadership. From 179 initial records, 24 articles were selected through screening, eligibility assessment, and thematic relevance analysis. The findings reveal that AI contributes to educational quality through personalized learning, adaptive assessment, learning analytics, digital mentorship, improved academic services, and data-informed decision-making. The review further indicates that the successful implementation of AI and digital transformation depends on institutional readiness, digital leadership, governance structures, teacher competence, quality assurance systems, and ethical oversight. The study highlights that educational quality should not be measured solely by technological efficiency or academic performance. For Islamic education, quality management should also incorporate moral development, religious literacy, proper ethical conduct, trustworthiness, justice, honesty, spiritual growth, and human-centered pedagogy. The findings provide a conceptual framework for integrating AI-driven quality management with value-based educational principles and offer guidance for future research and institutional policy development.

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INTRODUCTION

Artificial intelligence (AI) and digital transformation have emerged as major forces shaping contemporary society and influencing how educational institutions deliver learning, manage academic services, and ensure educational quality. The increasing integration of AI into educational environments is important because education plays a strategic role in preparing human resources capable of responding to social, economic, and technological changes. Educational institutions are therefore expected to improve learning effectiveness, institutional responsiveness, and service quality while maintaining equitable

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access and human development. Recent studies demonstrate that AI can support teaching excellence, personalized learning, research productivity, educational innovation, and institutional decision-making (Li et al., 2026; Bollaert, 2025). Likewise, digital transformation has encouraged curriculum renewal, technological leadership, and digital literacy development across educational sectors (Soodan et al., 2024; Peterlin et al., 2025). Therefore, understanding AI-enabled quality management has become increasingly important for ensuring that educational transformation contributes to sustainable institutional improvement and societal development.

Despite these opportunities, educational institutions continue to face significant challenges in adopting AI and digital transformation effectively. The rapid growth of digital technologies often exceeds institutional readiness, creating gaps in infrastructure, leadership capacity, digital competence, governance mechanisms, and quality assurance systems. Many institutions struggle to integrate technological innovation into existing educational processes while simultaneously maintaining educational quality and accountability. Sustainable AI adoption requires leadership accountability, stakeholder collaboration, adequate resources, and governance frameworks that support responsible implementation (Al Juma & Al-Mahdy, 2025; Petsavas & Ioakimidis, 2026). Furthermore, institutional transformation is influenced by organizational culture, professional development, infrastructure readiness, and ethical responsibility (Jenkins & Khanna, 2025). These challenges demonstrate that AI implementation is not merely a technical issue but also a managerial and organizational concern that directly affects educational quality and long-term institutional sustainability.

The phenomenon observed across educational settings indicates that AI applications are increasingly embedded in teaching, assessment, mentoring, administration, and institutional decision-making processes. Learning analytics, adaptive assessment systems, generative AI tools, digital mentoring platforms, and automated academic services are becoming more common in schools and higher education institutions. Research shows that AI can enhance student engagement, support personalized learning pathways, improve service delivery, and facilitate evidence-based decision-making when combined with effective pedagogical design and institutional management (Asadi & Karimian, 2025; Liu, 2023). However, practical implementation often reveals uneven levels of readiness among institutions and educators. While some institutions successfully integrate AI into quality improvement initiatives, others experience difficulties

related to technological competence, policy development, ethical oversight, and resource availability. These realities indicate that the educational benefits of AI are highly dependent on institutional capacity and quality management practices.

Existing literature has extensively examined AI and digital transformation from various perspectives. Several studies focus on AI-enabled learning innovation, personalized instruction, adaptive assessment, and technology-enhanced learning experiences (Li et al., 2026; Asadi & Karimian, 2025; Pan et al., 2024). Other scholars emphasize the strategic dimensions of digital transformation, highlighting institutional leadership, governance structures, digital literacy, and organizational adaptation as critical factors influencing implementation success (Bollaert, 2025; Peterlin et al., 2025; Wiese et al., 2025). Research has also explored the role of organizational learning, transformational leadership, and quality-oriented management in supporting institutional improvement and educational effectiveness (Wrye, 2026). Collectively, these studies provide valuable insights into the technological and managerial dimensions of educational transformation. Nevertheless, they tend to address AI adoption, digital leadership, quality assurance, and institutional improvement as separate domains, limiting a comprehensive understanding of how these elements interact within a unified quality management framework.

The literature also highlights growing concerns regarding ethical governance and responsible AI adoption in education. Scholars argue that excessive reliance on AI may encourage techno-deterministic assumptions, weaken critical human judgment, and reduce meaningful educational interactions if institutions fail to establish adequate safeguards (Heinsfeld & Veletsianos, 2025; Hampton & DeFalco, 2022). Ethical concerns related to data privacy, algorithmic bias, academic integrity, digital inequality, and institutional accountability have become increasingly prominent in discussions surrounding educational technology (Burford et al., 2025; Petsavas & Ioakimidis, 2026). Although these studies contribute significantly to understanding responsible AI governance, limited research has examined how ethical principles can be integrated with quality management and digital transformation within value-based educational environments. Consequently, a significant research gap remains regarding the development of a holistic framework that combines technological innovation, institutional quality, educational leadership, and ethical responsibility in a coherent manner.

This study addresses that gap by proposing an integrated perspective that connects AI adoption, digital transformation, quality management, leadership, governance, and ethical values within educational institutions. Unlike previous studies that primarily focus on technological effectiveness, leadership readiness,

or ethical concerns independently, this review synthesizes these dimensions into a comprehensive quality management framework. The novelty of this study lies in its effort to conceptualize AI-enabled quality management as a multidimensional process that encompasses pedagogical innovation, institutional governance, continuous quality improvement, and ethical responsibility. Furthermore, the study extends existing discussions by incorporating the perspective of Islamic education, where educational quality includes not only academic achievement and institutional performance but also character formation, religious literacy, proper ethical conduct, trustworthiness, justice, honesty, and spiritual development. This integrated approach provides a broader understanding of educational quality in the digital era.

Based on these considerations, the central research problem concerns how artificial intelligence, digital transformation, and quality management can be integrated into a coherent framework that supports sustainable educational improvement while preserving ethical and value-based educational objectives. This study argues that the effectiveness of AI-enabled educational transformation depends not only on technological capability but also on leadership quality, institutional readiness, governance structures, quality assurance mechanisms, and ethical oversight. Therefore, this systematic literature review aims to synthesize existing studies on AI, digital transformation, leadership, governance, and quality management in education, identify dominant themes and research gaps, and examine their implications for Islamic education. The study contributes theoretically by developing a comprehensive conceptual framework for AI-enabled quality management and contributes practically by providing insights that may guide educational leaders, policymakers, and institutions in implementing responsible and value-oriented digital transformation strategies.

RESEARCH METHODS

This study employed a qualitative systematic literature review (SLR) design to synthesize scholarly evidence on artificial intelligence (AI)-enabled quality management and digital transformation in education and to examine their implications for Islamic education. The SLR approach was selected because it provides a transparent, rigorous, and replicable procedure for identifying, evaluating, and synthesizing relevant studies from a defined body of literature. The review followed the PRISMA 2020 framework, which offers systematic guidance for literature identification, screening, eligibility assessment, and inclusion processes (Page et al., 2021). Rather than generating statistical generalizations, this qualitative review aimed to develop a comprehensive

conceptual understanding of how AI, digital transformation, leadership, governance, quality management, and ethical considerations interact within educational contexts and inform value-based educational development.

The data source for this study was the Scopus database, which was selected because of its broad coverage of peer-reviewed international publications and its widespread use in educational and management research. Data collection was conducted through a structured literature search using the keywords "Artificial Intelligence," "Quality," "Education," and "Leadership." The search was limited to English-language journal articles published between 2020 and 2026. The inclusion criteria comprised studies addressing AI, digital transformation, educational quality, leadership, governance, institutional readiness, quality management, or ethical issues in education. Following the PRISMA procedure, 179 records were initially identified, reduced through screening and eligibility assessment, and ultimately narrowed to 24 articles that demonstrated strong thematic relevance to the review objectives. Data extraction focused on authorship, publication year, research context, methodological approach, key findings, and implications for AI-enabled quality management and Islamic education.

Data analysis was conducted using thematic synthesis supported by qualitative data reduction procedures. Following the interactive analysis model, the process involved data condensation, data display, and conclusion drawing or verification. During data condensation, relevant information from the selected studies was coded and categorized according to recurring concepts related to AI adoption, digital transformation, leadership, governance, quality management, and ethical responsibility. Subsequently, the categorized findings were organized into thematic matrices to facilitate data display and comparison across studies. Finally, conclusions were generated through an iterative verification process to ensure consistency between emerging themes and the reviewed evidence. This analytical procedure resulted in four major themes: AI-driven pedagogical innovation and learning quality; digital transformation, institutional readiness, and governance; quality management, leadership, and continuous improvement; and ethical values and responsible AI governance. These themes formed the basis for interpreting the implications of AI-enabled quality management for Islamic educational institutions.

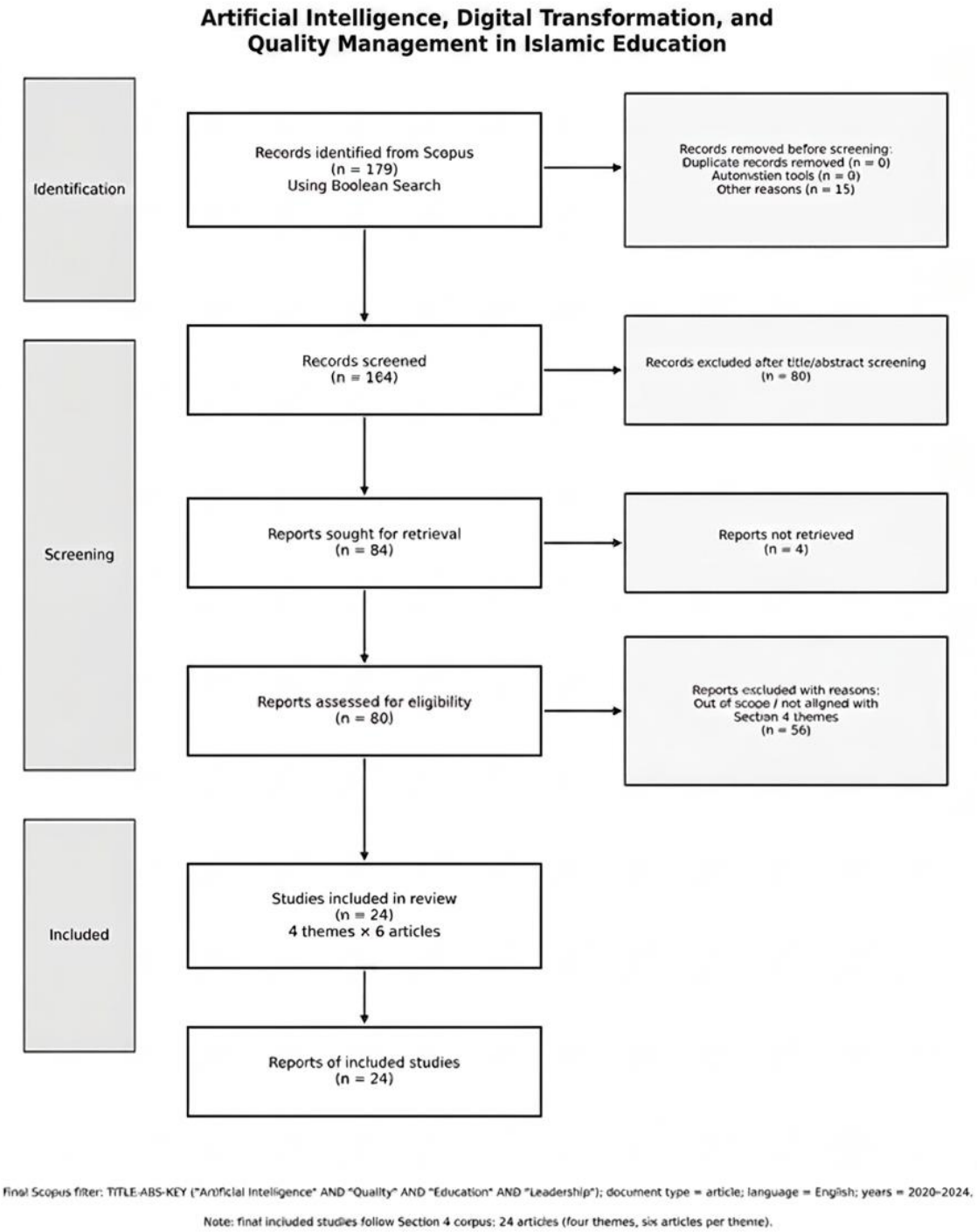

Figure 1. Prisma Flow Diagram of Study Selection

Figure 1 illustrates the PRISMA flow diagram used in the study selection process. The initial search in the Scopus database identified 179 records. After applying publication type, language, year, and relevance filters, 164 records remained for screening. Title and abstract screening reduced the dataset to 84

studies, while four records were excluded because full texts were unavailable. Subsequently, 80 articles underwent eligibility assessment, and 56 were excluded because their scope was not aligned with the thematic focus of the review. The final corpus consisted of 24 articles, which were included in the thematic synthesis and organized into four analytical themes. The figure demonstrates the transparency and rigor of the review process and confirms the systematic application of the PRISMA framework in selecting studies for analysis (Page et al., 2021).

RESULTS AND DISCUSSION

The thematic synthesis of the 24 selected articles generated four major themes: (1) AI-driven pedagogical innovation and learning quality; (2) digital transformation, institutional readiness, and governance; (3) quality management, leadership, and continuous improvement; and (4) ethical values and responsible artificial intelligence governance. The classification was based on the dominant focus, conceptual contribution, and educational relevance of each study. Although most studies were conducted in general educational settings, their findings provide transferable insights for Islamic education institutions, particularly in relation to quality management, leadership, governance, and value-based educational transformation.

Table 1. AI-Driven Pedagogical Innovation and Learning Quality

No.	Extracted Citation (s)	AI Application or Digital Tool	Educational Context and Implications for Islamic Education	Learning Quality Aspect	Main Findings	Strengths of the Study	Limitations / Gaps
1	Li et al. (2026)	Generative artificial intelligence	Higher education; provides implications for Islamic higher education in developing AI-supported teaching, research, and knowledge dissemination	Teaching excellence, knowledge production, educational equity, innovation	GenAI supports high-quality development by enhancing teaching, research, knowledge production, educational equity, and innovation	Strong conceptual contribution; links AI with institutional development and educational quality	Does not specifically examine Islamic education institutions

2	Yang et al. (2022)	Knowledge-based recommender system using artificial intelligence	Smart education; relevant for developing personalized digital learning in Islamic schools and Islamic higher education	Personalized learning, student-teacher interaction, student engagement, learning quality	The AI-based recommender system improves student-teacher interaction, student involvement, learning quality, and learning-style prediction	Provides technical and pedagogical evidence on AI-supported personalization	Limited discussion of ethical governance and religious-value alignment
3	Pan et al. (2024)	Sentiment analysis and theme mining using SnowNLP-LDA	MOOC-based AI education; relevant for improving digital Islamic learning platforms and online Islamic courses	Course quality, learner attitudes, instructional design, learning methods	Sentiment analysis and topic mining help identify learner perceptions of AI courses and guide improvements in course content, teaching methods, and learning modes	Uses learner-generated data to evaluate course quality and learning experience	Focuses on MOOC course reviews and does not directly address Islamic education
4	Asadi and Karimian (2025)	Technology-enhanced learning, artificial intelligence, virtual simulation, and mobile applications	Medical education; transferable to Islamic education for AI-supported competency assessment and teacher training	Assessment quality, personalized feedback, competency evaluation, accessibility	Technology-enhanced learning improves flexible, interactive, and personalized assessment but requires attention to validity, reliability, faculty readiness, privacy, and access	Strong relevance to assessment quality and competency-based education	Context is medical education, not Islamic education
5	Liu (2023)	Artificial intelligence-supported curriculum design and	Higher education; relevant for preparing Islamic education graduates	Curriculum adaptation, digital literacy, soft skills, authentic assessment,	AI-era education requires curriculum adaptation, whole-person	Connects AI with curriculum reform, future-ready competencies, and holistic	The framework is general higher education and does not

		pedagogical innovation	with digital literacy, ethical awareness, and future-ready skills	personalized learning	education, digital literacy, ethical awareness, and authentic assessment	education	specifically address Islamic values
6	Soodan et al. (2024)	AI-based chatbot adoption in academia	Higher education; relevant for AI chatbot adoption in Islamic higher education and digital academic support	User acceptance, academic productivity, collaborative learning, learning support	AI chatbot adoption is influenced by task-technology fit, perceived usefulness, collegial networks, and ethical concerns such as privacy and plagiarism	Combines adoption model with social network factors; provides empirical evidence from academics	Focuses on adoption behavior rather than direct learning outcomes or Islamic education context

Table 1 shows that artificial intelligence contributes significantly to pedagogical innovation through personalized learning, adaptive assessment, learning analytics, curriculum redesign, and student engagement (Li et al., 2026; Yang et al., 2022; Pan et al., 2024). These findings are consistent with previous studies arguing that AI enhances learning quality when supported by effective pedagogical design and institutional readiness (Asadi & Karimian, 2025; Liu, 2023). However, unlike technology-centered perspectives that emphasize efficiency and automation, several studies highlight the importance of teacher competence, curriculum alignment, and ethical oversight in ensuring meaningful learning outcomes (Soodan et al., 2024). Theoretically, this finding extends the literature by positioning AI not merely as an instructional tool but as a component of educational quality management. Practically, it suggests that Islamic education institutions should integrate AI-supported learning with teacher guidance, religious literacy, and human-centered pedagogy to ensure that technological innovation supports both academic excellence and character formation.

Table 2. Digital Transformation, Institutional Readiness, and Governance

No.	Extracted Citation(s)	Educational Context and Implications for Islamic Education	Digital Transformation Component	Readiness Factor	Governance Issue	Key Finding	Managerial Implication
1	Chi (2026)	Early childhood education in Asia; relevant	AI-enabled learning applications, voice-activated	Leadership accountability, stakeholder coordination,	Quality assurance, cultural responsiveness,	Sustainable AI integration requires system-level	Islamic education leaders need AI

		for Islamic schools and madrasah in developing culturally responsive AI governance	tutors, and system-level AI integration	equity-oriented resourcing, and family engagement	equity, and blurred accountability among parents, educators, and AI platforms	governance, equity, leadership accountability, and culturally appropriate implementation	governance frameworks that protect human-centered learning and religious-cultural values
2	Al Juma and Al-Mahdy (2025)	Public schools in Oman; relevant for school-based AI administration in madrasah and Islamic schools	AI implementation in school administration and smart learning environments	Technical and administrative competence, training, infrastructure, and policy support	Absence of clear policies, inadequate infrastructure, and limited leadership competence	Effective AI implementation requires national strategic frameworks and sustainable professional development for digital leadership	Madrasah and Islamic school leaders need structured AI policies, training programs, and digital infrastructure planning
3	Mansour et al. (2024)	Medical education in Arab countries; relevant for curriculum modernization in Islamic higher education	Integration of AI and computer literacy into curricula	Curriculum readiness, institutional preparedness, and academic leadership support	Curriculum governance, institutional adaptation, and readiness for AI-based education	Digital transformation requires curriculum revision, leadership commitment, and preparedness to integrate AI literacy	Islamic higher education should integrate AI literacy into curricula while maintaining ethical and religious foundations
4	Bollaert (2025)	Higher education strategy and leadership; relevant for Islamic universities and Islamic educational institutions	AI as a strategic element in institutional transformation	Leadership vision, organizational culture, policy direction, and strategic readiness	Institutional mission, leadership responsibility, and policy alignment	AI should be positioned not only as a tool but also as a strategic issue affecting institutional mission and governance	Islamic education institutions should place AI within strategic planning and quality assurance systems
5	Prasad et al. (2025)	Education and educational research; relevant for data-informed governance in Islamic education	Technology-driven educational decision-making, learning analytics, and AI governance	Data literacy, policy responsiveness, teacher practice, and institutional capacity	Evidence-based decision-making, AI governance, equity, and accountability	Educational technology trends are increasingly connected with analytics-informed leadership and policy decision-making	Islamic education institutions need data-informed leadership to strengthen quality assurance and governance
6	Peterlin et al. (2025)	Digital mentorship in educational	AI-influenced digital mentorship,	Mentor readiness, digital	Human-AI balance, mentor	AI transforms mentor-mentee relationships	Islamic education should

	institutions; relevant for mentoring, supervision, and teacher development in Islamic education	online learning tools, and digital competence development	competence, adaptive learning culture, and human-centered interaction	competence, and responsible use of digital tools	and requires new competencies for digital mentorship	strengthen teacher mentoring and supervision through ethical and human-centered digital leadership

Table 2 demonstrates that successful digital transformation depends on institutional readiness, leadership capacity, governance mechanisms, infrastructure availability, and policy clarity (Chi, 2026; Al Juma & Al-Mahdy, 2025). These findings support earlier studies emphasizing that educational transformation is fundamentally an organizational and managerial process rather than a purely technological change (Bollaert, 2025; Mansour et al., 2024). While previous research frequently examined digital leadership and AI adoption separately, the reviewed studies reveal a strong interdependence between governance quality, leadership accountability, stakeholder coordination, and institutional preparedness (Prasad et al., 2025; Peterlin et al., 2025). This finding contributes to the growing literature on AI governance by demonstrating that institutional quality improvement requires a strategic alignment between technology, leadership, and organizational culture. For Islamic education, digital transformation should therefore be embedded within value-based governance frameworks that preserve institutional identity, educational objectives, and ethical responsibility.

Table 3. Quality Management, Leadership, and Continuous Improvement

No.	Extracted Citation(s)	Educational Context and Implications for Islamic Education	Quality Management Focus	Leadership or Management Dimension	Role of AI/Digital Technology	Quality Outcome	Key Contribution	Unresolved Issue
1	An (2024)	Higher education; relevant for teaching quality evaluation in Islamic higher	Teaching quality evaluation and quality assurance	Leadership development, teacher development, and teaching process	Data-driven decision-making and artificial intelligence-supported	Improved teaching quality and stronger evaluation systems	Provides a systematic view of teaching quality evaluation in	Focuses on evaluation models and does not address

		education		monitoring	evaluation		the AI era	Islamic values or religious learning outcomes
2	Yuni et al. (2025)	School leadership and curriculum implementation; relevant for madrasah and Islamic school leadership	Curriculum implementation and school quality improvement	Principal leadership management, curriculum leadership, and institutional change	Artificial intelligence as a support for curriculum implementation and leadership practice	Improved curriculum implementation and school-level quality improvement	Highlights the role of principal leadership in driving AI-supported curriculum change	Limited evidence on long-term impact and value-based quality assurance in Islamic schools

Table 3 highlights the relationship between quality management, leadership, and continuous improvement in the AI era. Consistent with Yuni et al., (2025), the reviewed studies indicate that quality enhancement is influenced by leadership effectiveness, organizational learning, institutional culture, and professional competence. AI and digital technologies support teaching quality evaluation, academic service improvement, performance monitoring, and evidence-based decision-making (An, 2024). However, unlike conventional quality management models that focus primarily on performance indicators and service efficiency, the studies reviewed emphasize the integration of human-centered leadership, sustainability, and ethical quality transformation. This finding contributes to the development of an AI-enabled quality management perspective that combines technological capability with institutional learning and leadership commitment. In Islamic education, quality management should therefore encompass not only institutional performance but also moral development, accountability, and continuous value-based improvement.

Table 4. Ethical Values and Responsible Artificial Intelligence Governance

No.	Extracted Citation(s)	Educational Context and Implications for Islamic Education	Ethical Issue Discussed	Value Dimension	AI/Digital Context	Risk Identified	Proposed Mitigation Strategy	Future Research Need
1	Heinsfeld and	Education and research; relevant for	Personification of generativ	Human agency, critical	Generative AI in education	Overdependence on AI,	Develop critical AI	Further studies should

	Veletsianos (2025)	Islamic education in maintaining teacher authority and critical human oversight	e AI, techno-determinism, and reduced human oversight	thinking, responsibility, and ethical awareness	and research	unrealistic perception of AI as a human-like educator, and weakened teacher authority	literacy and maintain human-centered educational supervision	examine how AI discourse shapes teacher and student perceptions in value-based education
2	Hampton and DeFalco (2022)	Technology-supported education, decision support, and leadership training; relevant for ethical AI use in Islamic educational leadership	Ethical, psychological, and structural implications of AI	Responsibility, human dignity, ethical decision-making, and psychological well-being	AI-supported education and leadership training	Psychological dependence, ethical misuse, and structural bias in AI-supported learning environments	Integrate ethical reflection into AI design, educational policy, and leadership training	Future research should explore ethical and psychological impacts of AI on students and educators
3	Bansal et al. (2024)	Higher education leadership; relevant for Islamic higher education leadership in responding to AI transformation	Ethical and social aspects of AI in higher education leadership	Empathy, collaboration, critical thinking, ethical awareness, and human qualities	AI in higher education decision-making and leadership	Overemphasis on technology and neglect of human qualities in education	Strengthen human-centered leadership, ethical awareness, and collaborative decision-making	Future research should examine how academic leaders balance AI use with human and ethical values
4	Smit et al. (2025)	Higher education; relevant for developing AI policies in Islamic universities and Islamic schools	Ambiguous AI regulations and moral hazards among students	Academic integrity, honesty, accountability, and responsible conduct	AI use in higher education learning and assessment	Moral hazards, academic misconduct, plagiarism, and unclear student	Develop clear institutional AI policies, assessment rules, and	Future studies should investigate AI policy effectiveness in preventin

						responsibility	academic integrity guidelines	g academic misconduct
5	Quattrini et al. (2026)	Professional education; relevant for teacher preparation and responsible AI integration in Islamic education institutions	Ethical oversight, policy support, and competency-based AI integration	Professional responsibility, ethical practice, accountability, and competence	AI-enhanced education, adaptive learning, simulations, and predictive analytics	Uncritical AI adoption, weak faculty readiness, and insufficient ethical supervision	Support faculty development, AI competencies, ethical oversight, and responsible AI policy	Future research should examine AI readiness and ethical competence among educators
6	Zinaida et al. (2026)	Professional training of managers; relevant for Islamic education management and leadership preparation	Transformation of value orientations in professional training through AI	Values, responsibility, ethical leadership, and professional identity	AI in professional training and management education	Shifting value orientations and possible weakening of human-centered professional identity	Strengthen value-based education, ethical leadership, and reflective AI use in professional training	Future research should examine how AI affects value formation in educational management and leadership

Table 4 reveals that ethical governance has become one of the most critical dimensions of AI adoption in education. Consistent with Heinsfeld and Veletsianos (2025), Hampton and DeFalco (2022), and Quattrini et al. (2026), the reviewed studies identify concerns related to privacy, academic integrity, algorithmic bias, human agency, and institutional accountability. While previous studies often focused on the technical capabilities of AI, the current synthesis demonstrates that responsible AI implementation depends on ethical literacy, clear institutional policies, professional competence, and human oversight. These findings extend existing discussions by highlighting that educational quality cannot be separated from ethical governance. For Islamic education, this perspective is particularly important because educational quality includes adab, amanah, justice, honesty, responsibility, and the protection of human dignity. Therefore, AI governance should function as an integral component of value-based quality assurance rather than merely a regulatory mechanism.

Across the four themes, the findings indicate that AI-enabled quality management is best understood as an integrated socio-technical system that combines pedagogical innovation, institutional governance, leadership capacity, continuous improvement, and ethical responsibility. This conclusion supports the arguments of Bollaert (2025), Wiese et al. (2025), and Chi (2026), who emphasize that educational transformation requires the alignment of technology, leadership, organizational culture, and governance structures. However, this review extends previous studies by synthesizing these dimensions within a single conceptual framework. Rather than treating AI adoption, digital transformation, quality assurance, and ethical governance as separate domains, the findings demonstrate their interdependence in shaping educational quality and institutional effectiveness.

The novelty of this study lies in the development of an integrated AI-enabled quality management framework that connects technological, managerial, pedagogical, and ethical dimensions within the context of Islamic education. Existing studies tend to focus on individual aspects such as AI-based learning, digital leadership, institutional readiness, or ethical concerns in isolation (Li et al., 2026; Bollaert, 2025; Chi, 2026). By synthesizing these perspectives, this review contributes theoretically to the emerging literature on AI-enabled educational quality management and contributes practically by providing guidance for educational leaders, policymakers, and Islamic education institutions. The findings suggest that successful AI adoption requires not only technological infrastructure and digital competence but also value-based leadership, ethical governance, continuous quality improvement, and human-centered educational practices capable of sustaining both academic excellence and moral development.

CONCLUSION

This systematic literature review demonstrates that the effective integration of artificial intelligence (AI) and digital transformation in education depends not only on technological advancement but also on leadership capacity, institutional readiness, quality management, and ethical governance. The most important lesson emerging from this review is that educational quality, particularly in Islamic education, should be understood as a holistic construct that combines academic excellence, organizational effectiveness, moral formation, religious literacy, ethical conduct and trustworthiness, justice, honesty, and spiritual development. The findings show that AI can enhance personalized learning, assessment, institutional decision-making, and service quality when implemented within a human-centered and value-based

framework. The primary scholarly contribution of this study lies in the development of an integrated conceptual perspective that connects technological, managerial, pedagogical, and ethical dimensions into an AI-enabled quality management framework for Islamic education, thereby extending existing discussions that often examine these dimensions separately. Nevertheless, this review is limited by its reliance on Scopus-indexed English-language publications and the relatively small number of studies directly addressing Islamic education. Future research should therefore employ empirical and comparative approaches in madrasah, pesantren, Islamic schools, and Islamic higher education institutions to examine AI adoption, digital leadership, teacher readiness, ethical governance, and value-based digital transformation in diverse educational contexts.

REFERENCES

Al Juma, S. A., & Al-Mahdy, Y. (2025, December). Artificial Intelligence in Omani Public Schools: Challenges and Strategies for Effective Educational Administration. In *2025 International Conference on Artificial Intelligence, Blockchain, Cloud Computing, and Data Analytics (ICoABCD)* (pp. 1–9). IEEE. https://doi.org/10.1109/ICoABCD67551.2025.11470918

An, X. (2024). An Interactive Data-Driven Multiple-Attribute Decision-Making Technique via Interval-Valued Intuitionistic Fuzzy Sets for Teaching Quality Evaluation in Higher Education. *International Journal of Knowledge-Based and Intelligent Engineering Systems, 28*(3), 581–598. https://doi.org/10.3233/KES-230456

Asadi, M., & Karimian, Z. (2025). Advancing Medical Education: Assessing Technology-Enhanced Learning Through the Lens of the Canadian Medical Education Directions for Specialists (CanMEDS) Framework: A Perspective Study. *Health Science Reports, 8*(8), e71171. https://doi.org/10.1002/hsr2.71171

Bansal, G., Mitchell, A., & Li, D. (2024). A Panel Report on Higher Education in the Age of AI From the Perspective of Academic Leaders in the Midwest US. *Communications of the Association for Information Systems, 54*(1), 360–375. https://doi.org/10.17705/1CAIS.05413

Bollaert, L. (2025). Artificial Intelligence: Objective or Tool in the 21st-Century Higher Education Strategy and Leadership? *Education Sciences, 15*(6), 774. https://doi.org/10.3390/educsci15060774

Burford, J. S., Booth, R. G., & McIntyre, A. (2025). Exploring the Intersection of Nursing Leadership and Artificial Intelligence: Scoping Review. *JMIR Nursing, 8*, e80085. https://doi.org/10.2196/80085

Chi, W. J. (2026, March). Sustainable Education Management of AI in Early Childhood Education: Policy and System-Level Implications for Asia.

Frontiers in Education, 11, Article 1787643. https://doi.org/10.3389/feduc.2026.1787643

Hampton, A. J., & DeFalco, J. A. (2022). Once More, With Feeling: Approaching a Novel Field of Technological Inquiry With the Hard-Earned Lessons of the Humanities. In S. Miller (Ed.), *The Frontlines of Artificial Intelligence Ethics* (pp. 1–5). Routledge. https://doi.org/10.4324/9781003030928-1

Heinsfeld, B. D., & Veletsianos, G. (2025). The Language on GenAI: A Critical Exploration of Personification Metaphors in UNESCO's Guidance for Generative AI in Education and Research. *Journal of Interactive Media in Education, 2025*(1). https://doi.org/10.5334/jime.983

Jenkins, D., & Khanna, G. (2025). AI-Enhanced Training, Education, and Development: Exploration and Insights Into Generative AI's Role in Leadership Learning. *Journal of Leadership Studies, 18*(4), 81–97. https://doi.org/10.1002/jls.70004

Li, W., Song, R., & Yu, K. (2026). GenAI Enabling the High-Quality Development of Higher Education: Operational Mechanisms and Pathways. *Innovations in Education and Teaching International*, 1–16. https://doi.org/10.1080/14703297.2026.2655329

Liu, L. (2023). A CDIO Education Model for Hospitality Management in Context of Artificial Intelligence and Informatization. *EAI Endorsed Transactions on Pervasive Health and Technology, 9*. https://doi.org/10.4108/eetpht.9.3991

Mansour, N., Msheik El-Khoury, F., Zaatari, G., & Harb, M. (2024). The Perspectives of Deans of Medical Schools on Introducing Artificial Intelligence and Computer Literacy to Medical Curricula in Arab Countries. In *Higher Education in the Arab World: Digital Transformation* (pp. 309–344). Springer Nature Switzerland. https://doi.org/10.1007/978-3-031-70779-7_15

Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., Brennan, S. E., Chou, R., Glanville, J., Grimshaw, J. M., Hróbjartsson, A., Lalu, M. M., Li, T., Loder, E. W., Mayo-Wilson, E., McDonald, S., ... Moher, D. (2021). The PRISMA 2020 Statement: An Updated Guideline for Reporting Systematic Reviews. *BMJ, 372*, n71. https://doi.org/10.1136/bmj.n71

Pan, M., Mao, H., & Gao, M. (2024, September). Research on Sentiment Analysis and Theme Mining of MOOC Course Reviews Based on SnowNLP-LDA. In *2024 4th International Conference on Educational Technology (ICET)* (pp. 578–582). IEEE. https://doi.org/10.1109/ICET62460.2024.10868638

Peterlin, J., Guna, J., Mrak, G., & Zupančič, D. (2025). Role of Digital Leadership in the Transformation of Mentor-Mentee Relationships: Case of Slovenia. In *Digital Leadership and Organizational Transformation* (pp. xx–xx). Emerald Publishing. https://doi.org/10.1108/978-1-83662-252-920251001

Petsavas, P., & Ioakimidis, M. (2026). Modeling the Economic Efficiency and Administrative Integration of Artificial Intelligence in Greek Public Secondary Education. *Leadership and Policy in Schools*, 1–23. https://doi.org/10.1080/15700763.2026.2657485

Prasad, R. D., Pek, L. S., Yob, F. S. C., Von, W. Y., Magulod, G. C., Jr., & Adom, D. (2025). Navigating the Tech Turn: A Bibliometric Analysis of Decision-Making Trends in 21st Century Education. *International Journal of Learning, Teaching and Educational Research, 24*(11), 297–313. https://doi.org/10.26803/ijlter.24.11.14

Quattrini, V., Taylor, L., Lynch-Smith, D., Hemphill, T., Gibson, T., Ford, A., ... Anthamatten, A. (2026). Artificial Intelligence-Ready Doctor of Nursing Practice Education: A Competency-Based Approach. *Journal of Doctoral Nursing Practice, 19*(1), 11. https://doi.org/10.1891/JDNP-2025-0051

Smit, M., Wagner, R. F., & Bond-Barnard, T. J. (2025). Ambiguous Regulations for Dealing With AI in Higher Education Can Lead to Moral Hazards Among Students. *Project Leadership and Society*, 100187. https://doi.org/10.1016/j.plas.2025.100187

Soodan, V., Rana, A., Jain, A., & Sharma, D. (2024). AI Chatbot Adoption in Academia: Task Fit, Usefulness and Collegial Ties. *Journal of Information Technology Education: Innovations in Practice, 23*, 1–18. https://doi.org/10.28945/5260

Wiese, T., Lus, B., & Sun, R. H. (2025). Project Leadership in the AI Age: Embracing Clutch Leadership for Success. In *Clutch Leadership* (pp. 93–118). Productivity Press. https://doi.org/10.4324/9781003629214-8

Wrye, T. P. (2026). *Leading the Next Era of Public Education: A Roadmap for Personalized, Student-Centered, and Equitable Schools*. Taylor & Francis. https://doi.org/10.4324/9781003739050

Yang, H., Anbarasan, M., & Vadivel, T. (2022). Knowledge-Based Recommender System Using Artificial Intelligence for Smart Education. *Journal of Interconnection Networks, 22*(Suppl. 2), 2143031. https://doi.org/10.1142/S0219265921430313

Yuni, S., Saryanto, S., & Rejokirono, R. (2024). The Role of Principal Leadership Management as a Driving Force in Implementing the Independent Curriculum Using AI. *International Journal of Engineering, Science, 5*(1), 12–18. https://doi.org/10.52088/ijesty.v5i1.623

Zinaida, S., Oksana, D., Krystyna, C., Tetiana, B., & Tetiana, K. (2026). Artificial Intelligence as a Factor in the Transformation of Value Orientations in the Professional Training of Managers. In *Big Data: Modern Tools and Techniques* (pp. 311–320). Springer Nature Switzerland. https://doi.org/10.1007/978-3-032-08765-2_29