

## Reconceptualizing Transformative Qur'anic Education for Ethical Halal Human Capital in the Digital Era

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Article Accepted: May 10, 2026, Revision: July 29, 2026, Approved: July 30, 2026

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### Abstrak

Digitalisasi industri halal global yang berkembang pesat melalui integrasi kecerdasan buatan (AI), blockchain, dan ekosistem digital memunculkan tantangan krusial terkait etika, spiritualitas, dan integritas profesional. Tantangan ini belum sepenuhnya dapat diakomodasi oleh pendidikan Al-Qur'an konvensional. Merespons hal tersebut, **tujuan** penelitian ini adalah menjembatani kesenjangan antara pedagogi digital dan manajemen industri halal yang selama ini berjalan secara terpisah. Dengan menggunakan **metode** penelitian studi konseptual kualitatif berbasis kajian pustaka integratif, kajian ini merekonseptualisasi pendidikan Al-Qur'an transformatif melalui kerangka empat pilar: nilai-nilai etis Al-Qur'an, pedagogi digital transformatif, kompetensi profesional halal, dan ekosistem halal yang berkelanjutan. **Hasil penelitian** menegaskan bahwa pendidikan Al-Qur'an dapat difungsikan sebagai landasan strategis dalam mencetak sumber daya manusia halal yang adaptif, beretika tinggi, dan kompeten secara digital. Sebagai **kontribusi**, penelitian ini menawarkan paradigma teoretis baru yang menyinergikan filosofi pendidikan Islam dengan etika digital, sekaligus memberikan panduan praktis bagi pembuat kebijakan untuk mendukung Tujuan Pembangunan Berkelanjutan (SDGs).

**Kata Kunci:** Pendidikan Qur'ani Transformatif, Halal Human Capital, Pedagogi Digital, Industri Halal Etis, Ekosistem Halal Berkelanjutan.

### Abstract

The rapid digitalization of the global halal industry, driven by the integration of artificial intelligence (AI), blockchain, and digital ecosystems, presents critical challenges regarding ethics, spirituality, and professional integrity. Conventional Qur'anic education has yet to fully address these challenges. In response, this study **aims to** bridge the gap between digital pedagogy and halal industry management, fields that have hitherto operated in isolation. Employing a qualitative conceptual **study method** based on an integrative literature review, this research reconceptualizes transformative Qur'anic education through a four-pillar framework: Qur'anic ethical values, transformative digital pedagogy, halal professional competence, and a sustainable halal ecosystem. **The findings** affirm that Qur'anic education can serve as

a strategic foundation for cultivating halal-sector human resources who are adaptive, highly ethical, and digitally competent. **As a contribution**, this study offers a new theoretical paradigm that synergizes Islamic educational philosophy with digital ethics, while providing practical guidance for policymakers to support the Sustainable Development Goals (SDGs).

**Keywords:** *Transformative Qur'anic Education, Halal Human Capital, Digital Pedagogy, Ethical Halal Industry, Sustainable Halal Ecosystem.*

## Introduction

The development of the global halal industry in the digital era has driven significant transformations in business governance, certification systems, and technology-based human resource development. Digital technologies such as Artificial Intelligence (AI), blockchain, and the Internet of Things (IoT) are increasingly being applied in the halal supply chain to increase transparency, efficiency, and accountability in the modern halal industry (Rahman & Ahmad, 2024). However, this accelerated digitalization also raises new challenges related to ethics, spirituality, and integrity in halal industry practices, particularly when technological orientation has not been fully integrated with Qur'anic values as the foundation of Islamic morality. In this context, Qur'anic education can no longer be understood merely as a process of transmitting normative religious knowledge, but needs to be reconstructed to respond to the dynamics of the contemporary digital-based halal industry. This transformation is increasingly important because Qur'anic education has great potential to shape the ethical character, professional spirituality, and moral awareness needed to develop halal human capital in the era of the global digital economy.

On the other hand, digital transformation has also changed the paradigm of Qur'anic learning and Islamic education more broadly. Various studies have shown that integrating digital technology into Qur'anic education through blended learning, flipped classrooms, social media, and online learning platforms has increased the effectiveness, flexibility, and engagement of students in the learning process (Genç & Yilmaz, 2025; Zakariyah et al., 2025). Furthermore, the development of AI in Qur'anic studies has opened up new opportunities for developing learning methods, interpretive analysis, and the dissemination of Islamic literacy globally (Syahir et al., 2025). However, most of these transformations still focus solely on pedagogical and technological aspects, while the dimensions of halal human resource development based on Qur'anic ethics are still relatively limited in academic literature. As a result, there is a gap between the development of the digital halal industry and the Qur'anic education model that can produce a technologically adaptive Muslim workforce that also possesses strong moral and spiritual integrity.

Although studies on the transformation of Qur'anic education and the digitalization of Islamic learning continue to develop, several important gaps remain in the previous literature. First, previous research generally discusses the digital transformation of Qur'anic education in the context of pedagogy and learning media without specifically linking it to the needs of the halal industry and human resource development (Amran et al., 2025; Kusnadi et al., 2025; Putra et al., 2026). Second, studies on the halal industry have focused more on economic aspects, certification, marketing, and the supply chain, while the dimension of Qur'anic education as a basis for forming an ethical halal workforce remains minimally explored. Third, there is limited research integrating an interdisciplinary approach between Qur'anic education, Islamic business ethics, digital transformation, and the development of halal human capital within a comprehensive conceptual framework. This integrative approach is crucial in addressing the complexities of an increasingly digitalized and competitive global halal industry. Addressing these limitations is paramount; without establishing this critical connection, contemporary Islamic educational models risk irrelevance in the face of rapid technological and economic shifts.

Building upon these identified gaps, the specific novelty and theoretical contribution of this research reside in its pioneering formulation of a holistic, multi-dimensional architecture that explicitly bridges classical Qur'anic axiology with contemporary digital-driven industrial ecosystems. While prior scholarly works have fragmented the discourse either isolating digital pedagogical tools or treating halal supply chains purely through a technocratic and macroeconomic lens, this study introduces a novel conceptual synthesis. It repositions transformative Qur'anic education not merely as a localized theological curriculum, but as a macro-strategic engine for incubating ethical human capital. By systematically mapping Qur'anic ethical principles directly onto advanced digital capabilities and modern professional competencies, this research delivers an original paradigm that redefines how spiritual integrity and technological adaptability can be structurally co-developed to secure sustainable global halal competitiveness.

Therefore, this research has high academic and practical urgency in strengthening the relevance of Qur'anic education to the needs of the global Muslim community in the contemporary digital era, while also providing an important contribution to the development of studies on Islamic education, sharia economics, and the halal industry based on Qur'anic values (Amin et al., 2025; Nasir et al., 2025).

To guide this investigation, this study explores how conventional Qur'anic education can be fundamentally reconstructed to meet the ethical and digital demands of the contemporary

global halal industry, while specifically identifying the core structural components required in an integrative framework that bridges Qur'anic values, digital pedagogy, and halal human capital development, and further examining the ways in which this framework can contribute to sustainable economic growth and ethical governance within the modern digital halal ecosystem. Correspondingly, this study aims to reconstruct Qur'anic education in a transformative manner in the context of halal industry development in the digital era by developing an integrative framework for ethical and spiritually oriented human resource development. This study seeks to explain how Qur'anic values can be integrated with digital transformation, contemporary pedagogy, and the needs of the global halal industry to form competent, adaptive, and sustainable halal human capital. The conceptual framework developed in this study positions Qur'anic education not only as an instrument of religious learning but also as a foundation for developing ethical competence, spiritual professionalism, and digital capabilities in facing the challenges of the modern halal industry. Thus, this study is expected to provide theoretical contributions to the development of a transformative Islamic education model while providing practical implications for the development of halal education and industry policies based on Qur'anic values.

The Introduction section includes research background; research questions; objectives and significance (you must explain and critique previous similar research and present new arguments, new perspectives, or novelty; otherwise your article cannot be considered meaningful/significant and will not be considered for further processing); theoretical review/conceptual framework; Hypothesis (if any). The introduction section is approximately 2-3 pages long and is typed in Times New Roman 12, regular, 1.5 spacing.

## **Research Method**

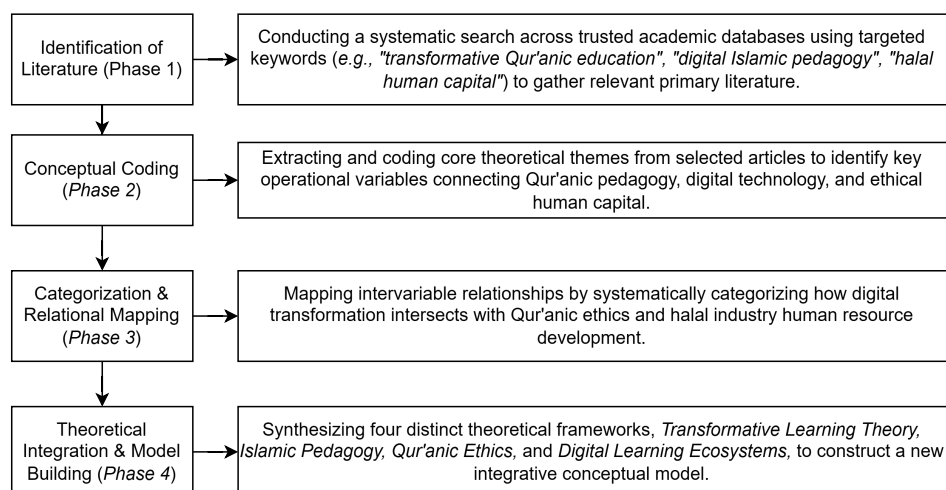
This study employs a qualitative approach with a conceptual research design grounded in an integrative literature review methodology. A conceptual design was selected because the primary objective is to build an integrative theoretical framework connecting Qur'anic education, digital transformation, and ethical human capital development in the halal industry (Jaakkola, 2020). Unlike traditional descriptive reviews, the integrative literature review method enables the synthesis of diverse theoretical perspectives and empirical findings across disciplines to construct novel, futuristic conceptual models (Snyder, 2019). Thus, this methodological approach prioritizes theoretical construction through cross-disciplinary integration and critical reinterpretation of existing literature. Consistent with this

conceptual-qualitative nature, the study does not formulate a formal, testable hypothesis; instead, it is guided by the research objective and questions articulated in the Introduction.

The literature search strategy was executed systematically across reputable academic databases, including Scopus and Web of Science, to retrieve high-quality primary source materials. The retrieval process utilized targeted Boolean keyword combinations, such as ("transformative Qur'anic education" OR "digital Islamic pedagogy") AND ("halal human capital" OR "ethical halal industry") AND ("AI in Islamic education" OR "digital learning ecosystem"). Articles were screened and selected based on strict inclusion criteria, specifically their theoretical relevance, conceptual contribution, and capacity to support integrative framework development within the context of digital-era Islamic education.

The research procedure was executed through a four-phase analytical pipeline designed to systematically synthesize literature data into a cohesive conceptual model (Xiao & Watson, 2019). The first phase involved identifying primary literature and filtering data. The second phase focused on conceptual coding to extract core operational constructs across Qur'anic pedagogy and human capital capabilities. The third phase comprised relational mapping to categorize intervariable relationships between digital learning environments and ethical value formation. Finally, the fourth phase established cross-disciplinary theoretical integration, combining Transformative Learning Theory, Islamic Pedagogy, Qur'anic Ethics, and Digital Learning Ecosystems. These four phases map directly onto the paper's subsequent structure: phases one and two inform the thematic synthesis presented in the Results section, phase three underlies the relational mapping of Qur'anic values to digital pedagogy discussed therein, and phase four culminates in the four-pillar Reconstructed Framework analyzed in the Discussion.

**Figure 1. Research Procedures**



For data analysis and synthesis, conceptual synthesis techniques were applied to identify, categorize, and merge foundational concepts regarding transformative education and digital-based halal human capital. By evaluating interactions between variables across theoretical boundaries, this analytical technique effectively generates new theoretical contributions that address contemporary practical challenges. Consequently, this methodological approach extends beyond reviewing existing literature to establishing an innovative theoretical framework directly relevant to the evolving demands of the global halal industry in the digital era.

## Result Finding

### Transformation of Qur'anic Education within the Digital Halal Industry Ecosystem

The transformation of Qur'anic education within the digital halal industry ecosystem signifies a fundamental shift in Islamic learning, moving away from static, text-bound instructional models toward dynamic pedagogical frameworks aligned with digital technologies. A synthesis of recent literature indicates that integrating digital learning tools, such as blended learning, flipped classrooms, and e-learning platforms, significantly enhances student engagement, learning flexibility, and motivational levels in Qur'anic studies (Zakariyah et al., 2025). Furthermore, digital accessibility expands the reach of Qur'anic instruction across diverse cultural and geographic landscapes, thereby strengthening the inclusiveness of contemporary Islamic education (Genç & Yilmaz, 2025).

Concurrently, advancements in Artificial Intelligence (AI) have introduced specialized computational supports for Qur'anic learning, including automated tajwid analysis, pronunciation diagnostics, and adaptive learning architectures (Syahir et al., 2025). However, these computational tools exhibit inherent limitations regarding spiritual interiority, moral guidance, and the holistic formation of religious character (Birgün, 2026). Digital tools remain incapable of fully replicating the spiritual mentoring traditionally provided by human educators.

Within the broader economic context, this pedagogical shift directly intersects with the digitalization of the global halal industry. As Rahman and Ahmad (2024) observe, blockchain integration, AI-driven tracking, and digital supply chains demand a workforce equipped with both high-tech literacy and rigorous ethical standards. Consequently, Qur'anic education must evolve beyond normative knowledge transmission to cultivate ethical halal human capital grounded in trustworthiness (*amanah*), professional excellence (*ihsan*), and social responsibility (Amran et al., 2025). Nevertheless, structural barriers such as uneven

digital literacy, infrastructural deficits, and potential content fragmentation continue to hinder implementation (Abubakari, 2025; Syahir et al., 2025).

### **Integration of Qur'anic Values and Digital Pedagogy for Halal Human Capital**

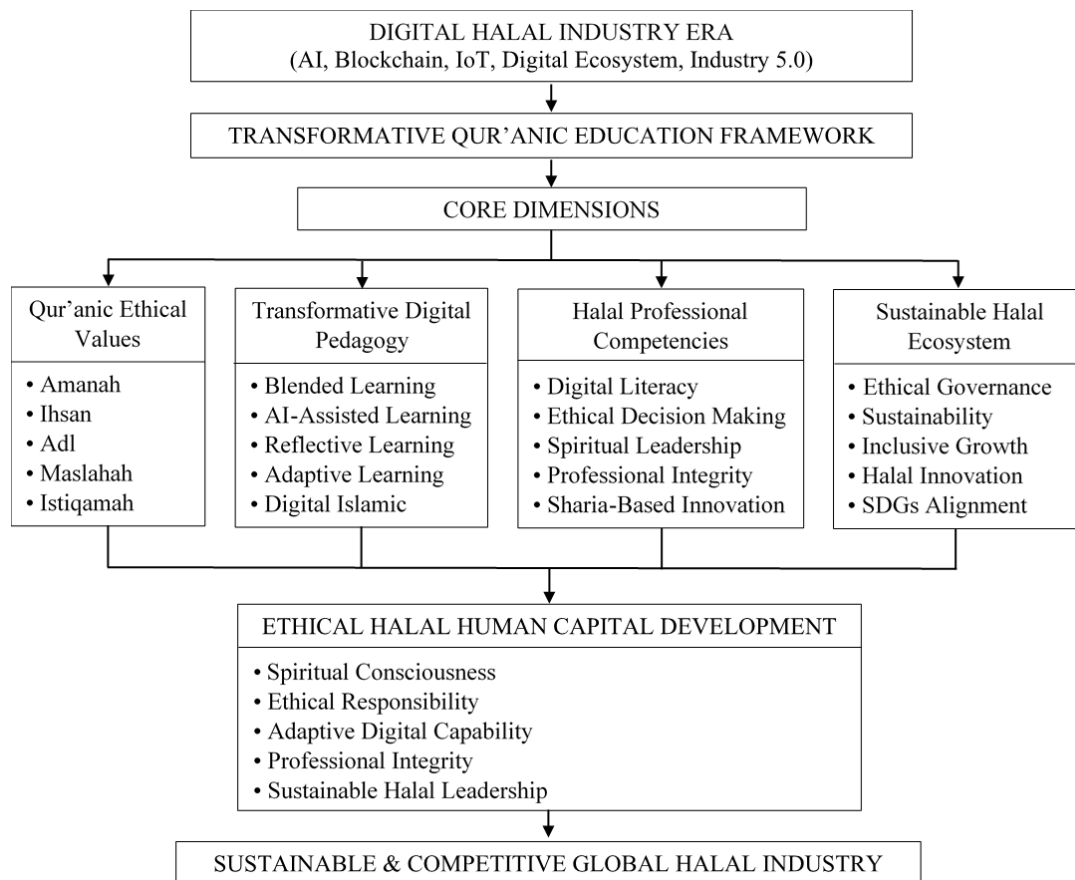
Developing ethical human capital for the digital halal economy requires synthesizing Qur'anic axiological values with advanced digital pedagogies. While technologies like adaptive learning systems and AI applications increase instructional flexibility and personalization (Zakariyah et al., 2025; Alim et al., 2025; Raja Yusof et al., 2025), prevailing digital educational models frequently remain technocentric, overlooking essential ethical dimensions (Rekan et al., 2025).

To bridge this gap, the study identifies core Qur'anic values essential for the digital workplace: *amanah* (integrity/data trust), *ihsan* (professional excellence), *adl* (justice/algorithmic fairness), *maslahah* (public welfare), and *istiqamah* (moral consistency). These values establish a normative foundation for a technologically adept workforce characterized by deep spiritual consciousness and ethical accountability (Ab Wahab, 2024). As Arifin and Kholis (2025) emphasize, embedding these values into digital human resource paradigms strengthens sharia-compliant decision-making and fosters organizational integrity. Furthermore, adopting structured management frameworks based on these values helps navigate the ethical complexities of digital transformation (Akilah et al., 2026), while reflective digital pedagogies enable educators to successfully cultivate religious character amidst technological integration (Nusran et al., 2025; Amirudin et al., 2026).

### **The Reconstructed Framework of Transformative Qur'anic Education**

Synthesizing these findings, this study establishes the *Transformative Qur'anic Education for Ethical Halal Human Capital Development* framework, positioning Qur'anic education as an epistemological and practical foundation for the modern digital halal economy (Wahab et al., 2026; Rahman & Ahmad, 2024).



**Figure 1.** Conceptual Framework of Transformative Qur'anic Education for Ethical Halal Human Capital Development in the Digital Halal Industry Ecosystem

(Source: Adapted and synthesized from Rahman & Ahmad, 2024; Syahir et al., 2025; Genç & Yilmaz, 2025; Zakariyah et al., 2025; Akilah et al., 2026; Wahab et al., 2026; Hashim et al., 2024; & Rahman, 2024).

**The structural architecture integrates four dynamically interdependent dimensions:**

1. **Qur'anic Ethical Values:** The foundational axiological pillar instilling *amanah*, *ihsan*, *adl*, *maslahah*, and *istiqamah* into professional character (Kartika et al., 2024).
2. **Transformative Digital Pedagogy:** The operational learning conduit linking Qur'anic ethics with AI-assisted, adaptive, and reflective digital learning environments.
3. **Halal Professional Competencies:** The targeted human capital output, merging digital literacy, ethical leadership, and sharia-compliant decision-making.
4. **Sustainable Halal Ecosystem:** The macro-level objective, aligning human resource outcomes with ethical governance, digital innovation, and global halal competitiveness.



## Discussion

### Transcendental Pedagogy versus Technocentrism: Reclaiming Spiritual Depth

Taken together, the four-pillar framework presented above directly addresses this study's central objective of bridging digital pedagogy and halal industry management, which have traditionally operated as separate domains: Qur'anic ethical values and transformative digital pedagogy jointly ground the pedagogical side, while halal professional competencies and the sustainable halal ecosystem extend that foundation into industry management practice. A critical evaluation of the findings reveals a profound epistemological tension: while AI and digital interfaces democratize access to Qur'anic learning, they carry a distinct risk of *technocentric reductionism*. As noted by Birgün (2026), automated systems remain fundamentally constrained in fostering the spiritual interiority, moral intuition, and character purification (*tazkiyah*) inherent in human-led instruction. Because digital tools evaluate phonetic output rather than existential accountability (*taqwa*), uncritical technological adoption threatens to strip Islamic education of its core spiritual purpose.

Consequently, maintaining the focus and scope of Qur'anic studies in the digital era requires a hybrid pedagogical model. This model merges computational efficiency with the deep internalization of traditional pedagogical constructs—specifically *ta'dib* (moral discipline), *tarbiyah* (nurturing), and *tazkiyah* (purification). This synthesis ensures that modern halal professionals are not merely technologically proficient, but ethically grounded and capable of navigating the moral complexities of automated environments.

### Epistemological Reconstruction and Governance of the Halal Ecosystem

The study demonstrates that Qur'anic education functions far beyond a mechanism of traditional text transmission; it serves as a robust epistemological engine for modern industrial governance. As articulated by Wahab et al. (2026), contemporary halal industry development requires an integrated Islamic epistemology that weaves *maqasid al-shariah* (the objectives of Islamic law) directly into educational curricula and institutional policies.

By interpreting concepts such as *halalan toyyiban* as comprehensive indicators of ethical supply chains, environmental stewardship, and fair digital commerce (Kartika et al., 2024), professional agency is fundamentally redefined. Compliance transitions from a bureaucratic checkbox into an expression of divine duty and universal justice (*adl*). This aligns directly with the Islamization of knowledge paradigm, anchoring digital technology within a unified tawhidic worldview rather than secular-capitalist utilitarianism (Hashim et al., 2024).

### Addressing Structural and Pedagogical Impediments

Operationalizing this framework requires confronting persistent structural challenges, including digital divides, infrastructural bottlenecks, and fragmented regulatory systems across Muslim jurisdictions (Nusran et al., 2025). Furthermore, transitioning educators from traditional lecturers to active digital facilitators demands continuous pedagogical capacity building. Aligning with Amirudin et al. (2026), cultivating a *reflective digital pedagogy* allows institutions to leverage technology to provoke critical thinking and spiritual reflection. Ultimately, successful integration depends on an institution's capacity to harmonize technological innovation with uncompromised spiritual integrity.

### Theoretical Novelty and Practical Contributions

This research establishes clear theoretical novelty and delivers distinct practical contributions by expanding the boundaries of contemporary Islamic studies: **Theoretical Novelty:** The primary novelty of this study lies in the formulation of an integrative, four-pillar framework (*Transformative Qur'anic Education for Ethical Halal Human Capital Development*) that successfully bridges three traditionally fragmented domains: Islamic educational philosophy, transformative learning theory, and digital industry ethics. Unlike prior studies that examine digital pedagogy or halal supply chain management in isolation, this work establishes a unified epistemological nexus where classical Qur'anic axiological values directly govern modern automated and digital systems.

**Practical Contributions & Strategic Implications:** Operationally, the framework provides actionable guidelines for educational institutions, halal regulators, and public policymakers. It outlines precise pathways to design curricula that simultaneously cultivate digital literacy, halal market competencies, and spiritual accountability. Furthermore, it directly synchronizes the global halal economy with the United Nations Sustainable Development Goals, specifically targeting inclusive quality education (SDG 4), decent work and economic growth (SDG 8), and sustainable infrastructure and innovation (SDG 9) (Rahman, 2024).

### Conclusion

This study concludes that bridging the historically separate domains of digital pedagogy and halal industry management is essential amidst the rapid digitalization of the global halal industry. Consequently, there is an urgent demand for a paradigm shift from conventional instruction to a transformative educational model. This is achieved through an integrated

four-pillar framework that effectively bridges classical Qur'anic ethical values, digital pedagogy, professional competencies, and sustainable ecosystems. Theoretically, this research introduces a novel interdisciplinary paradigm that functionally links Islamic educational philosophy with digital ethics.

Practically, it provides actionable blueprints for modern curriculum design and policy alignment in accordance with the United Nations Sustainable Development Goals (SDGs 4, 8, and 9) (Rahman, 2024). Building upon these foundational concepts, future research must pursue empirical validation through case studies and explore cross-contextual adaptations. Furthermore, it is critical to develop AI-driven interactive modules to effectively bridge technical proficiency with spiritual interiority, ultimately ensuring the holistic development of ethical halal human capital in the digital era.

## References

- Ab Wahab, Mastura. (2024). Building a value-based workforce through Islamic work value-based recruitment: A conceptual review. *Asian Academy of Management Journal*, 29(1), 255–283. <https://doi.org/10.21315/aamj2024.29.1.10>
- Abubakari, Mussa Saidi. (2025). Digital technologies adoption in Islamic education for fostering lifelong learning culture: Pilot survey preliminary insights. In M. Anshari, M. N. Almunawar, & P. O. de Pablos (Eds.), *Multi-Industry Digitalization and Technological Governance in the AI Era*. IGI Global. <https://doi.org/10.4018/979-8-3373-1681-9.ch005>
- Akilah, Fahmiah, Abubakar, Achmad, & Mahfuz, Muhsin. (2026). A Qur'anic management framework for sustainable work ethics in the digital era: Operationalizing amānah and integrity for organizational resilience. *Banco*, 8(1), 27–46. <https://doi.org/10.35905/banco.v8i1.15148>
- Alim, Nik Nurul Akmal, Wahid, Khairussaadah, Zamani, Siti Nor Haliza Abd, & Adenan, Faezy. (2025). Artificial intelligence as a support tool for Quran memorization: An exploratory study on the potential use of AI applications among non-Islamic studies students. *Quranica*, 17(2), 157–186.
- Amin, Husna, Djawas, Mursyid, Nurdin, Abidin, & Akbar, Rhmatul. (2025). Environmental paradigm transformation through integrative interpretation: Perspective of Quranic ecological hermeneutics. *International Journal of Islamic Thought*, 28, 52–63. <https://doi.org/10.24035/ijit.28.2025.334>

- Amirudin, Iqbal Amar Muzaki, & Nurhayati, Sri. (2026). Reflective digital pedagogy in Islamic religious education and religious character formation in higher education. *International Journal of Learning, Teaching and Educational Research*, 25(2), 763–782. <https://doi.org/10.26803/ijlter.25.2.34>
- Amran, Najah Nadiyah, Daud, Burhan Che, & Hussin, Haziya. (2025). Transformation of Al-Quran and Al-Sunnah education: Needs and challenges towards dynamic and impactful learning. *Global Journal Al-Thaqafah*, 256–275. <https://doi.org/10.7187/GJATSI122025-17>
- Arifin, Ah Ali, & Kholis, Nur. (2025). Spiritual values in a digital workplace: The integration of Islamic ethics into human resource development at Bank Syariah Indonesia. *Qudus International Journal of Islamic Studies*, 13(1), 235–268. <https://doi.org/10.21043/qijis.v13i1.33522>
- Birgün, Mehmet. (2026). Integrating AI into Qur'an learning: Technical advances and pedagogical gaps. *Social Sciences and Humanities Open*, 13, 102499. <https://doi.org/10.1016/j.ssaho.2026.102499>
- Genç, Hayati, & Yilmaz, Ali. (2025). The teaching of the Quran in the digital age: The role of technology and social media in Quran education. *Mutefekkir*, 12(23), 239–267. <https://doi.org/10.30523/mutefekkir.1733231>
- Hashim, Yumi Zuhanis Has-Yun, Ahmad, Anis Najiha, Ahmad, Izzah Az-Zahra, Samsudin, Nurhusna, & Abbas, Phirdaous. (2024). Exploring halal science research: Do they meet the Tawhidic paradigm? Do they need Islamization of knowledge? *Journal of Fatwa Management and Research*, 29(1), 1–22. <https://doi.org/10.33102/jfatwa.vol29no1.559>
- Jaakkola, Elina. (2020). Designing conceptual articles: Four approaches. *AMS Review*, 10(1), 18–26. <https://doi.org/10.1007/s13162-020-00161-0>
- Kartika, Betania, Razali, M. Afiq, & Bella-Salsa, Aisah. (2024). Toyiyiban parameter in halal food industry; A thematic study from Qur'an and Sunnah. In A. Amid, A. A. M. Elgharbawy, & W. A. Abualsunun (Eds.), *Solving Halal Industry Issues Through Research in Halal Sciences*. Springer Nature. [https://doi.org/10.1007/978-981-97-3843-4\\_7](https://doi.org/10.1007/978-981-97-3843-4_7)
- Kusnadi, Sulaeman Mubaidi, & Zulfikar, Eko. (2025). Systematic literature review (SLR) on Qur'anic learning in Indonesia (2014-2024). *Quranica*, 17(2), 28–60.
- Nasir, Khairulnazrin, Zaman, Rahim Kamarul, Hilmi, Ahmad Bazli Ahmad, Mahadzir, Abdul Hakim, & Mustaffa, Ahmad Mukhlis Bin. (2025). Artificial intelligence

- integration in mobile applications: Innovation and challenges in supporting Quran memorization and review. *Quranica*, 17(2), 612–645.
- Nusran, Muhammad, Noor, M. Azemi M., Marasabessy, Sitnah Aisyah, & Mel, Maizirwan. (2025). Sustainable development platform for a halal ecosystem: An alternative solution. *Industrial Engineering and Management Systems*, 24(4), 611–623. <https://doi.org/10.7232/iems.2025.24.4.611>
- Putra, Purniadi, Ilias, Mohd Faez, Hartono, Rudi, Burhanuddin, Saputra, Nanda, & Barsihanor. (2026). Digital literacy as a transformative framework for character education: A case study in Madrasah Ibtidaiyah. *Nazhruna: Jurnal Pendidikan Islam*, 9(1), 33–51. <https://doi.org/10.31538/nzh.v9i1.429>
- Rahman, Md. Mahfujur. (2024). Halal industry contributions to sustainable development: Inclusive education and indigenous knowledge systems. In S. K. Behera, A. H. Ibrahim, & F. Romdhani (Eds.), *Inclusivity and Indigeneity in Education for Sustainable Development*. IGI Global. <https://doi.org/10.4018/979-8-3693-2802-6.ch007>
- Rahman, Md Mahfujur, & Ahmad, Zaki. (2024). Lifelong learning and technologic advancement in the halal industry: Navigating the digital age embracing technological advancements for lifelong learning. In M. M. Kh. Hawamdeh & F. Abdelhafid (Eds.), *Embracing Technological Advancements for Lifelong Learning*. IGI Global. <https://doi.org/10.4018/979-8-3693-1410-4.ch009>
- Raja Yusof, Raja Jamilah, Norasid, Mohamad Alihanafiah, & Abdullah, Mustaffa. (2025). Digital Al-Qur'an applications and artificial intelligence (AI): An overview. *Quranica*, 17(2), 646–676.
- Rekan, Abd. Aziz, Howell, Hafeezur-Rahman, Salleh, Muhamad Nasir Mohamad, Kassim, Noorafini, & Rokhimawan, M. Agung. (2025). Bridging knowledge and character: Cultivating student development through Islamic educational leadership. *Kharisma*, 4(2), 125–144. <https://doi.org/10.59373/kharisma.v4i2.123>
- Snyder, Hannah. (2019). Literature review as a research methodology: An overview and guidelines. *Journal of Business Research*, 104, 333–339. <https://doi.org/10.1016/j.jbusres.2019.07.039>
- Syahir, Aminun Nabil Ahmad, Abidin, Mohd Syukri Zainal, Sa'ari, Che Zarrina, & Rahman, Muhamad Zulfadli Abdul. (2025). Artificial intelligence and digital transformation in Qur'anic studies: A systematic literature review. *Quranica*, 17(2 Special Issue), 542–585.

- Wahab, Abdul, Kuswanjono, Arqom, & Mahdiya, Ilma. (2026). Halal industry and Islamic epistemology: Implications for policy, ethics, and global practices. *Journal of Islamic Economic Laws*, 9(01), 144–169. <https://doi.org/10.23917/jisel.v9i01.13268>
- Xiao, Yu, & Watson, Maria. (2019). Guidance on conducting a systematic literature review. *Journal of Planning Education and Research*, 39(1), 93–112. <https://doi.org/10.1177/0739456X17723971>
- Zakariyah, Abdul Muhid, & Arifin, Miftah. (2025). Transformation of Al-Qur'an memorization learning in the digital age through the blended learning flipped classroom approach. *Nazhruna: Jurnal Pendidikan Islam*, 8(3), 594–606. <https://doi.org/10.31538/nzh.v8i3.193>