



Digitalization and *Maqāṣid al-Sharī'ah*: Navigating Halal Lifestyle in Indonesia

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Abstract

Background: Rapid digitalization has fundamentally transformed the global halal ecosystem by integrating digital technologies into halal certification, electronic commerce, Islamic finance, tourism, pharmaceuticals, education, and supply-chain management. In Indonesia, digital innovation has accelerated the development of a modern halal lifestyle by improving accessibility, efficiency, and market connectivity while simultaneously creating new governance challenges related to regulatory fragmentation, institutional coordination, consumer trust, digital literacy, and compliance with the objectives of Islamic law (*Maqāṣid al-Sharī'ah*). Although previous studies have examined digital technologies or halal governance separately, limited research has integrated both perspectives within a comprehensive Islamic governance framework capable of explaining how technological innovation can simultaneously promote ethical governance and sustainable public welfare.

Methods: This study employed a qualitative doctrinal research design through a systematic literature review. Data were collected from peer-reviewed journal articles, legal regulations, policy documents, and authoritative publications concerning digitalization, halal governance, and Islamic law. The collected data were analyzed using thematic content analysis, comparative analysis, interpretive analysis, and source triangulation. *Maqāṣid al-Sharī'ah* served as the principal analytical framework for evaluating how digital technologies contribute to transparency, accountability, consumer protection, institutional collaboration, and sustainable halal ecosystem development.

Results: The findings demonstrate that digital technologies—including halal e-commerce platforms, electronic halal certification, blockchain-enabled traceability, Internet of Things (IoT), and digital compliance systems—significantly improve transparency, accessibility, operational efficiency, and stakeholder participation within Indonesia's halal ecosystem. Nevertheless, their implementation remains constrained by fragmented regulations, inconsistent certification practices, technological disparities, limited digital literacy, insufficient interoperability, and weak institutional collaboration. To address these challenges, this study develops the *Maqāṣid*-Based Digital Halal Governance Framework (MDHGF) as a conceptual model integrating digital technologies, halal governance, stakeholder collaboration, and the five objectives of *Maqāṣid al-Sharī'ah*.

Discussion: The proposed framework demonstrates that effective digital halal governance requires collaborative engagement among government institutions, halal certification authorities, technology providers, business actors, academic institutions, and Muslim communities. By positioning *Maqāṣid al-Sharī'ah* as the ethical and normative



foundation of digital governance, the framework strengthens legal certainty, institutional accountability, consumer confidence, transparency, and public welfare while supporting sustainable digital transformation across the halal industry.

Conclusion: Sustainable digitalization of the halal ecosystem cannot be achieved solely through technological advancement. Instead, it requires adaptive governance, coherent regulations, institutional collaboration, and continuous integration of Islamic legal objectives into digital innovation to ensure that technological development contributes to justice, transparency, consumer protection, and long-term societal welfare.

Novelty: The novelty of this study lies in proposing the *Maqāṣid-Based* Digital Halal Governance Framework (MDHGF), which integrates digital technologies, stakeholder collaboration, halal governance, and the five objectives of *Maqāṣid al-Sharī'ah* into a unified conceptual model. This framework provides both a theoretical contribution to the literature on Islamic digital governance and practical guidance for policymakers, halal certification authorities, industry, and researchers in developing a resilient, ethical, and sustainable digital halal ecosystem in Indonesia and other Muslim-majority countries.

Keywords: *Maqāṣid al-Sharī'ah*; digital halal governance; halal lifestyle; digital transformation; halal ecosystem;

INTRODUCTION

The rapid advancement of digital technology has significantly transformed contemporary society by reshaping economic activities, social interactions, and religious practices across the globe. Digitalization has accelerated the integration of information technology into everyday life, creating innovative ecosystems that connect producers, consumers, regulators, and service providers through digital platforms. Within Muslim-majority countries, this transformation has also accelerated the development of the halal economy by expanding digital marketplaces, Islamic financial services, halal tourism, online education, and electronic certification systems. Consequently, the concept of a halal lifestyle has evolved beyond the traditional concern for halal food into a comprehensive socio-economic framework encompassing pharmaceuticals, cosmetics, tourism, fashion, finance, and other digital-based services. Indonesia, as the country with the world's largest Muslim population, possesses substantial opportunities to strengthen its competitiveness within the global halal industry by integrating technological innovation with Islamic ethical values and sustainable governance (Ali et al., 2021; Suhartanto et al., 2021; Ghazali et al., 2022; Boğan et al., 2023; Salaheldeen et al., 2024).

The expansion of digital platforms has undoubtedly improved accessibility to halal products and services by enabling consumers to obtain information, verify halal certification, compare products, and conduct online transactions with greater efficiency. Nevertheless, digital transformation has simultaneously generated new governance challenges associated with information reliability, consumer protection, regulatory consistency, and institutional accountability. The widespread dissemination of unverified information, fraudulent halal claims, and inconsistent certification practices may weaken consumer confidence and reduce the credibility of the digital halal ecosystem. Moreover, increasingly complex digital supply chains require transparent governance mechanisms capable of ensuring product traceability,

regulatory compliance, and effective institutional coordination. Recent studies demonstrate that emerging technologies such as blockchain, the Internet of Things (IoT), digital compliance management systems, and integrated halal certification platforms have considerable potential to improve supply-chain transparency and strengthen halal governance. However, their implementation remains constrained by fragmented regulations, technological disparities, and limited collaboration among governments, certification agencies, industry actors, and digital platform providers (Rejeb et al., 2021; Novita et al., 2022; Al-shami & Abdullah, 2023; Tedjakusuma et al., 2023; Abdul Halim et al., 2024; Kurniawati et al., 2024; Längle et al., 2024).

These developments indicate that technological innovation alone cannot ensure the sustainability of the digital halal ecosystem without an appropriate normative framework capable of balancing innovation with Islamic ethical principles. In this regard, *Maqāṣid al-Sharī'ah* provides a comprehensive analytical perspective by emphasizing the realization of public welfare (*maṣlaḥah*) through the protection of religion, life, intellect, lineage, and property. Rather than merely determining the permissibility of products and services, the *maqāṣid* approach encourages digital transformation that promotes transparency, justice, accountability, consumer protection, and socio-economic sustainability. Accordingly, digital technologies should function not only as instruments for commercial efficiency but also as mechanisms for strengthening institutional integrity and public trust within the halal ecosystem. Previous studies have shown that the successful implementation of halal governance depends upon institutional commitment, regulatory compliance, stakeholder collaboration, and increasing public awareness regarding halal standards and certification (Ahmad et al., 2017; Uddin et al., 2021; Jubaedah et al., 2023; Aslan, 2023; Herdiana et al., 2024; Naisabur et al., 2024). Therefore, integrating *Maqāṣid al-Sharī'ah* into digital halal governance provides an important theoretical foundation for ensuring that technological advancement contributes not only to economic growth but also to ethical, legal, and social sustainability.

Although previous studies have extensively examined halal certification, halal tourism, halal consumer behavior, supply-chain management, and digital commerce, the existing literature remains fragmented in explaining the relationship between digitalization and the higher objectives of Islamic law. Earlier research primarily discusses consumer preferences, halal awareness, certification effectiveness, technological adoption, or operational management independently, without integrating these dimensions into a comprehensive governance framework guided by *Maqāṣid al-Sharī'ah*. For instance, studies on halal tourism emphasize consumer experiences and destination competitiveness (Suhartanto et al., 2021; Slamet et al., 2022; Boğan et al., 2023), while research on digital transactions and online purchasing behavior mainly focuses on consumer trust and purchase intention (Ghazali et al., 2022; Novita et al., 2022; Tedjakusuma et al., 2023). Similarly, studies concerning halal supply chains and digital traceability have demonstrated the potential of blockchain, IoT, and digital compliance systems to improve transparency and operational efficiency, yet they rarely evaluate these technological

innovations from the perspective of Islamic legal objectives and public welfare (Ali et al., 2021; Rejeb et al., 2021; Al-shami & Abdullah, 2023; Kurniawati et al., 2024; Längle et al., 2024). Furthermore, contemporary discussions on halal certification and industrial governance continue to identify regulatory inconsistency, institutional fragmentation, and uneven implementation as persistent barriers to developing an integrated digital halal ecosystem (Jubaedah et al., 2023; Abdul Halim et al., 2024). These limitations reveal a significant research gap regarding how digital governance can be systematically aligned with *Maqāṣid al-Sharī'ah* to achieve sustainable, transparent, and socially accountable halal ecosystem development in Indonesia.

Based on these considerations, this study investigates how digitalization can support the implementation of a sustainable halal lifestyle through the analytical perspective of *Maqāṣid al-Sharī'ah*. Specifically, the study examines the opportunities and challenges of digital transformation, analyzes the role of digital technologies in strengthening halal governance, and explores strategies for improving transparency, accountability, consumer trust, and institutional collaboration within Indonesia's digital halal ecosystem. Unlike previous studies that separately discuss digital innovation, halal certification, consumer behavior, or Islamic legal principles, this research develops an integrated conceptual perspective linking digital governance with the higher objectives of Islamic law. The novelty of this study lies in proposing a *Maqāṣid al-Sharī'ah*-based analytical framework that explains how digital technologies can simultaneously promote ethical innovation, strengthen institutional governance, improve regulatory effectiveness, and enhance public welfare while preserving Islamic values. Accordingly, this article contributes to the growing interdisciplinary discourse on Islamic law, digital governance, and halal ecosystem development by offering both theoretical insights and practical recommendations for policymakers, halal certification authorities, technology developers, business actors, and Muslim communities in supporting Indonesia's aspiration to become a globally competitive and digitally integrated halal economy (Aslan, 2023; Herdiana et al., 2024; Naisabur et al., 2024; Salaheldeen et al., 2024; Abd Halim et al., 2024).

LITERATURE REVIEW

Digitalization has fundamentally transformed the governance and operation of the global halal ecosystem by integrating digital technologies into production, distribution, certification, and consumer engagement. The concept of a halal lifestyle has consequently evolved from a religious obligation concerning food consumption into a multidimensional socio-economic system encompassing tourism, finance, pharmaceuticals, cosmetics, fashion, education, and digital commerce. This transformation reflects the increasing convergence between technological innovation and Islamic economic development, where digital platforms facilitate greater accessibility, transparency, and efficiency throughout halal value chains. Previous studies have demonstrated that successful halal management depends not only on regulatory compliance but also on institutional governance, stakeholder collaboration, and consumer confidence in halal assurance systems (Ahmad et al., 2017). Likewise, technological

innovations have enabled more efficient mechanisms for tracing halal products, monitoring production processes, and improving information accessibility across increasingly complex supply chains (Ali et al., 2021; Rejeb et al., 2021; Uddin et al., 2021). The expansion of digital services has also strengthened consumer participation by enabling online verification of halal products and facilitating interaction between certification authorities, business actors, and consumers. Consequently, digital transformation has become a strategic component in strengthening the competitiveness and sustainability of the contemporary halal economy while simultaneously requiring adaptive governance capable of maintaining public trust and legal certainty.

The rapid development of digital platforms has generated significant opportunities for improving institutional performance within halal governance while simultaneously introducing new regulatory and operational challenges. Digital technologies have expanded market access for halal products through electronic commerce, online marketing, mobile applications, financial technology, and digital certification systems. In addition, digital innovation supports greater transparency by enabling real-time monitoring, electronic documentation, and integrated compliance management throughout halal supply chains. Nevertheless, technological advancement alone cannot guarantee the integrity of halal governance because digital ecosystems remain vulnerable to misinformation, inconsistent certification practices, cyber-related risks, fragmented regulations, and varying levels of institutional capacity. Consumer trust continues to depend upon reliable governance structures capable of ensuring the authenticity and traceability of halal products and services. Studies on halal tourism demonstrate that consumer satisfaction is influenced not only by service quality but also by confidence in Islamic values embedded within tourism experiences (Suhartanto et al., 2021; Slamet et al., 2022; Boğan et al., 2023). Similarly, research concerning halal consumer behavior indicates that halal awareness, certification credibility, subjective norms, and trust significantly influence purchasing decisions within digital marketplaces (Ghazali et al., 2022; Novita et al., 2022; Aslan, 2023; Tedjakusuma et al., 2023). These findings suggest that technological innovation should be accompanied by governance mechanisms that integrate legal compliance, ethical responsibility, and consumer protection into the digital halal ecosystem.

From an Islamic legal perspective, *Maqāṣid al-Sharī'ah* provides a comprehensive analytical framework for evaluating whether technological innovation contributes to the realization of public welfare (*maṣlaḥah*). Rather than limiting halal governance to procedural certification, the maqāṣid approach emphasizes the protection of religion (*ḥifẓ al-dīn*), life (*ḥifẓ al-nafs*), intellect (*ḥifẓ al-'aql*), lineage (*ḥifẓ al-nasl*), and property (*ḥifẓ al-māl*) as interconnected objectives guiding legal and institutional development. Accordingly, digital transformation should be directed toward strengthening transparency, accountability, justice, consumer protection, and sustainable socio-economic development. Recent studies highlight the growing importance of adaptive halal governance capable of responding to technological disruption through integrated certification systems, blockchain-based traceability, digital compliance

platforms, and institutional collaboration (Al-shami & Abdullah, 2023; Jubaedah et al., 2023; Abdul Halim et al., 2024; Herdiana et al., 2024; Kurniawati et al., 2024; Längle et al., 2024). Moreover, contemporary discussions concerning halal entrepreneurship and digital innovation emphasize that technological development should not merely pursue economic efficiency but also reinforce ethical business conduct, social responsibility, and sustainable governance consistent with Islamic legal objectives (Naisabur et al., 2024; Salaheldeen et al., 2024). Therefore, *Maqāṣid al-Sharī'ah* serves not only as a normative legal doctrine but also as a strategic governance framework capable of harmonizing digital innovation with the long-term sustainability of Indonesia's digital halal ecosystem.

Despite the growing body of literature on digital halal governance, several conceptual and empirical limitations remain insufficiently addressed. Existing studies generally examine halal certification, digital commerce, halal tourism, consumer behavior, or supply-chain technologies as separate research domains, resulting in fragmented explanations of how digital transformation should be governed within an integrated Islamic legal framework. Research on blockchain, IoT, and digital compliance systems has primarily emphasized operational efficiency, product traceability, and technological feasibility without adequately examining their contribution to the broader objectives of Islamic law and public welfare (Ali et al., 2021; Rejeb et al., 2021; Ghazali et al., 2022; Al-shami & Abdullah, 2023; Tedjakusuma et al., 2023; Kurniawati et al., 2024; Längle et al., 2024). Likewise, studies concerning halal certification have highlighted regulatory challenges, implementation gaps, and institutional constraints, yet relatively little attention has been devoted to understanding how digital governance can strengthen collaboration among governments, halal certification authorities, technology providers, industry actors, and consumers within a unified governance ecosystem (Jubaedah et al., 2023; Abdul Halim et al., 2024). Furthermore, while discussions of halal entrepreneurship, pharmaceutical innovation, and digital tourism continue to expand, these studies rarely integrate *Maqāṣid al-Sharī'ah* as a comprehensive analytical framework capable of connecting technological innovation, ethical governance, regulatory effectiveness, and sustainable socio-economic development (Herdiana et al., 2024; Naisabur et al., 2024; Salaheldeen et al., 2024; Abd Halim et al., 2024).

Building upon these scholarly discussions, this study positions *Maqāṣid al-Sharī'ah* as an integrative framework for understanding the relationship between digital transformation and sustainable halal lifestyle development in Indonesia. Unlike previous studies that predominantly emphasize technological adoption or sector-specific challenges, this research synthesizes insights from Islamic legal theory, digital governance, halal certification, consumer behavior, and digital supply-chain management into a unified analytical perspective. The underlying assumption is that digital innovation should be evaluated not merely by technological sophistication or economic performance but also by its capacity to promote transparency, accountability, legal certainty, consumer protection, institutional collaboration, and public welfare. Through this theoretical synthesis, the study develops a conceptual foundation for examining how digital technologies can strengthen ethical governance while

preserving the higher objectives of Islamic law. This literature review therefore establishes the intellectual basis for the subsequent methodological approach by demonstrating that sustainable digital halal governance requires the integration of technological innovation, adaptive institutions, collaborative stakeholders, and *Maqāṣid al-Sharī'ah* as complementary components of a resilient and inclusive halal ecosystem.

METHODS

This study employed a qualitative research design using a doctrinal and literature-based approach to examine the relationship between digitalization, *Maqāṣid al-Sharī'ah*, and the development of a sustainable halal lifestyle in Indonesia. A qualitative design was selected because the study seeks to generate an in-depth understanding of concepts, institutional dynamics, and governance issues rather than to measure statistical relationships. The research is grounded in the assumption that digital transformation within the halal ecosystem involves not only technological innovation but also legal, ethical, social, and institutional dimensions that require comprehensive interpretation. Accordingly, *Maqāṣid al-Sharī'ah* was adopted as the primary analytical framework to evaluate whether contemporary digital innovations support the realization of public welfare (*maṣlahah*) through the protection of religion, life, intellect, lineage, and property. The study relied exclusively on secondary data obtained from peer-reviewed journal articles, books, government regulations, policy reports, and official publications discussing halal governance, digital transformation, Islamic law, halal certification, digital commerce, blockchain, and sustainable supply-chain management. To ensure the relevance and academic quality of the reviewed literature, priority was given to publications indexed in internationally recognized databases, particularly Scopus and ScienceDirect, supplemented by Indonesian legal documents concerning halal product assurance and related regulatory frameworks. This methodological approach has been widely employed in studies examining halal governance, digital supply chains, and Islamic legal perspectives because it enables systematic synthesis of multidisciplinary knowledge and facilitates comprehensive conceptual analysis (Ali et al., 2021; Rejeb et al., 2021; Ghazali et al., 2022; Jubaedah et al., 2023; Kurniawati et al., 2024).

The literature selection process followed predefined inclusion and exclusion criteria to enhance analytical rigor and minimize selection bias. Included sources consisted of scholarly publications discussing digital technologies in halal industries, halal certification systems, digital governance, consumer behavior, Islamic legal theory, and *Maqāṣid al-Sharī'ah*, with particular emphasis on publications released between 2017 and 2024 to capture recent developments in digital transformation. Publications lacking clear academic methodology, duplicative studies, opinion-based articles, or sources unrelated to the objectives of this research were excluded from the analysis. The collected literature was systematically organized according to major analytical themes, including digital halal ecosystems, halal certification and governance, technological innovation, consumer trust, regulatory frameworks, and Islamic legal objectives. Organizing the literature into thematic categories enabled the identification of

conceptual relationships across disciplines while facilitating a critical evaluation of converging and diverging scholarly perspectives. Such a thematic organization is particularly appropriate for interdisciplinary studies because it supports a comprehensive understanding of complex governance issues and provides a coherent foundation for integrating technological, legal, and ethical dimensions within the analytical framework of *Maqāṣid al-Sharī'ah* (Ahmad et al., 2017; Uddin et al., 2021; Al-shami & Abdullah, 2023; Aslan, 2023; Abdul Halim et al., 2024; Herdiana et al., 2024).

The collected data were analyzed using an integrated thematic content analysis combined with comparative and interpretive approaches to identify recurring patterns, conceptual relationships, and emerging issues concerning digital halal governance. Initially, all selected literature was systematically reviewed and categorized into thematic clusters, including digital transformation, halal certification, consumer trust, technological innovation, institutional governance, and *Maqāṣid al-Sharī'ah*. Subsequently, similarities and differences among previous studies were critically compared to identify dominant perspectives, unresolved debates, and existing research gaps. The interpretive analysis was then employed to examine how the principles of *Maqāṣid al-Sharī'ah* could be applied as an analytical framework for assessing whether contemporary digital technologies contribute to the realization of public welfare, legal certainty, transparency, accountability, and sustainable halal governance. To strengthen the credibility and trustworthiness of the findings, source triangulation was conducted by comparing evidence derived from peer-reviewed journal articles, legal regulations, policy documents, and official institutional publications. This triangulation process enabled the verification of conceptual consistency across multiple sources while reducing the potential influence of disciplinary bias. Rather than merely describing previous findings, the analysis synthesized multidisciplinary perspectives to construct an integrated understanding of the interaction between digital innovation and Islamic legal objectives. Finally, the synthesized evidence was interpreted to formulate a comprehensive conceptual framework explaining how digital technologies can support the development of a sustainable halal lifestyle in Indonesia through adaptive governance, effective institutional collaboration, and ethical digital transformation. This analytical procedure ensured that the research findings were systematically grounded in existing scholarship while simultaneously providing original theoretical insights that contribute to the expanding discourse on Islamic law, digital governance, and sustainable halal ecosystem development (Ali et al., 2021; Rejeb et al., 2021; Ghazali et al., 2022; Jubaedah et al., 2023; Tedjakusuma et al., 2023; Kurniawati et al., 2024; Salaheldeen et al., 2024).

RESULTS AND DISCUSSION

Digital Transformation and the Dynamics of Halal Lifestyle in Indonesia

The acceleration of digital transformation has fundamentally reshaped the development of the halal lifestyle by integrating digital technologies into virtually every stage of the halal value

chain. What was once primarily associated with halal food consumption has evolved into a comprehensive digital ecosystem encompassing halal tourism, Islamic financial services, halal pharmaceuticals, cosmetics, fashion, education, and online marketplaces. This transformation has shifted the halal lifestyle from a purely religious obligation to a broader socio-economic system supported by technological innovation and institutional governance. Earlier studies emphasized that effective halal management depends on organizational commitment, regulatory compliance, competent halal governance, and stakeholder collaboration rather than certification alone (Ahmad et al., 2017). More recent developments demonstrate that digital technologies—including blockchain, the Internet of Things (IoT), and digital traceability systems—have enhanced transparency, supply-chain visibility, and information accessibility across increasingly complex halal industries (Ali et al., 2021; Rejeb et al., 2021; Uddin et al., 2021). Consequently, digitalization should be understood not merely as technological modernization but as a structural transformation that redefines how halal assurance, institutional accountability, and consumer participation are organized within Indonesia's rapidly expanding halal ecosystem.

Indonesia has experienced substantial growth in digital halal services, reflecting increasing consumer demand for accessible, transparent, and trustworthy halal products and services. Digital marketplaces, electronic halal certification, online food delivery platforms, and social commerce have expanded consumer access while simultaneously creating new governance challenges. Although these technologies improve efficiency and market inclusiveness, they also increase exposure to misinformation, inconsistent halal claims, fragmented regulatory implementation, and unequal digital capabilities among business actors. Consequently, the sustainability of the halal ecosystem depends not only on digital innovation but also on the capacity of institutions to establish effective governance mechanisms that reinforce legal certainty and consumer trust. Research on halal tourism demonstrates that digital platforms significantly influence consumer experiences and destination choices through information accessibility and service quality (Suhartanto et al., 2021; Slamet et al., 2022; Boğan et al., 2023). Likewise, studies on digital commerce reveal that purchasing decisions are increasingly shaped by halal awareness, certification credibility, subjective norms, and consumer confidence in digital platforms (Ghazali et al., 2022; Novita et al., 2022; Aslan, 2023; Tedjakusuma et al., 2023). These findings suggest that digital transformation creates opportunities for strengthening Indonesia's halal lifestyle, yet its long-term sustainability depends upon integrating technological advancement with adaptive governance, institutional collaboration, and consistent halal assurance systems.

Table 1. Digital Transformation and Its Implications for the Halal Lifestyle in Indonesia

Dimension	Digital Transformation	Opportunities	Governance Challenges
Halal Consumption	Digital marketplaces and mobile applications	Wider access to halal products	Unverified halal claims and misinformation

Dimension	Digital Transformation	Opportunities	Governance Challenges
Halal Certification	Electronic certification and digital verification	Faster verification and greater transparency	Regulatory inconsistency and implementation gaps
Halal Supply Chain	Blockchain, IoT, and digital traceability	Improved product traceability and accountability	High implementation costs and technological readiness
Halal Tourism	Online booking platforms and digital promotion	Better accessibility and consumer experience	Standardization of halal tourism services
Consumer Behaviour	Social commerce and digital information	Increased halal awareness and purchasing convenience	Digital literacy and consumer trust

Source: Authors' analysis, 2025.

The findings further indicate that digital transformation should not be interpreted merely as the adoption of advanced technologies but rather as the emergence of a new governance paradigm within the halal ecosystem. The integration of digital certification, electronic commerce, traceability systems, and online consumer engagement has fundamentally altered interactions among governments, halal certification bodies, business actors, technology providers, and consumers. This transformation has shifted halal governance from a conventional compliance-based model toward a more integrated digital governance approach emphasizing transparency, accountability, interoperability, and real-time information exchange. Nevertheless, digitalization simultaneously introduces complex institutional challenges that cannot be resolved solely through technological investment. Fragmented regulations, differences in institutional capacity, uneven digital infrastructure, and limited technical competencies among small and medium enterprises continue to constrain the effective implementation of digital halal governance. Similar challenges have been identified in studies on halal industry management and certification systems, which argue that sustainable digital transformation depends upon harmonized regulations, standardized certification procedures, and effective collaboration among stakeholders rather than technological innovation alone (Al-shami & Abdullah, 2023; Jubaedah et al., 2023; Abdul Halim et al., 2024). Consequently, digital governance should be viewed as an institutional reform process that integrates technology, regulatory frameworks, organizational capacity, and stakeholder participation into a coherent halal assurance system.

Beyond institutional governance, digital transformation has also reshaped the behavioral dynamics of Muslim consumers by changing how halal information is accessed, evaluated, and utilized in everyday decision-making. Digital platforms increasingly function as primary sources of information regarding halal certification, product composition, consumer reviews,

and service quality, enabling consumers to make more informed purchasing decisions. This development strengthens market efficiency while simultaneously increasing expectations for greater transparency and accountability from producers and regulatory institutions. However, the rapid dissemination of digital information also creates vulnerabilities, including misleading marketing practices, unverified halal claims, algorithm-driven misinformation, and unequal access to reliable digital services. These challenges demonstrate that technological innovation alone cannot guarantee the realization of a sustainable halal lifestyle without ethical governance and public digital literacy. Accordingly, the concept of halal lifestyle should be understood as a dynamic interaction between technological innovation, institutional governance, consumer behavior, and Islamic ethical values rather than as a static pattern of religious consumption. From this perspective, the transformation of Indonesia's halal ecosystem requires a governance model capable of integrating digital technologies with the broader objectives of *Maqāṣid al-Sharī'ah*, ensuring that technological advancement contributes not only to economic competitiveness but also to justice, transparency, consumer protection, and sustainable public welfare. Therefore, the next section analyzes how the principles of *Maqāṣid al-Sharī'ah* provide a comprehensive normative and analytical framework for evaluating the opportunities and challenges of digital halal governance in Indonesia (Herdiana et al., 2024; Kurniawati et al., 2024; Abd Halim et al., 2024; Salaheldeen et al., 2024).

Maqāṣid al-Sharī'ah as an Analytical Framework for Digital Halal Governance

The rapid expansion of digital technologies within the halal ecosystem requires an analytical framework capable of evaluating technological innovation beyond economic efficiency and operational performance. Although digital platforms have enhanced accessibility to halal products, certification services, and online transactions, technological progress alone cannot guarantee that digital transformation consistently promotes justice, transparency, and public welfare. Consequently, the implementation of digital halal governance should be guided by a normative framework capable of balancing innovation with ethical responsibility. In Islamic legal philosophy, *Maqāṣid al-Sharī'ah* provides such a framework by emphasizing the realization of *maṣlahah* (public welfare) through the protection of religion (*ḥifẓ al-dīn*), life (*ḥifẓ al-nafs*), intellect (*ḥifẓ al-'aql*), lineage (*ḥifẓ al-nasl*), and property (*ḥifẓ al-māl*). Rather than functioning solely as a legal doctrine for determining halal and haram, these five objectives provide strategic guidance for designing governance systems that prioritize accountability, fairness, sustainability, and social responsibility. Earlier studies on halal management have similarly argued that successful halal governance depends not only on certification procedures but also on institutional commitment, governance quality, and stakeholder collaboration (Ahmad et al., 2017). As digital technologies increasingly influence halal production, distribution, certification, and consumer engagement, the *maqāṣid* perspective becomes increasingly relevant for evaluating whether technological innovation genuinely contributes to the broader objectives of Islamic law rather than merely improving commercial efficiency (Ali et al., 2021; Rejeb et al., 2021; Ghazali et al., 2022).

Applying *Maqāṣid al-Sharī'ah* to digital halal governance allows technological innovation to be assessed according to its contribution to ethical governance and sustainable development. Within this perspective, digital certification systems protect *ḥifẓ al-dīn* by reducing fraudulent halal claims and strengthening religious compliance, while blockchain-based traceability and digital monitoring systems contribute to *ḥifẓ al-nafs* by improving food safety and product integrity throughout halal supply chains. Likewise, reliable digital information platforms and transparent certification databases support *ḥifẓ al-'aql* by minimizing misinformation and enabling informed consumer decision-making. Secure digital payment systems, consumer protection mechanisms, and fraud prevention technologies reinforce *ḥifẓ al-māl* by protecting financial rights and promoting trustworthy commercial transactions. Furthermore, sustainable halal products, ethical digital marketing, and responsible business practices contribute to *ḥifẓ al-nasl* by safeguarding future generations through socially responsible consumption patterns. Therefore, the *maqāṣid* approach extends beyond theological interpretation and functions as a practical governance framework that integrates technological innovation, regulatory effectiveness, institutional accountability, and consumer welfare into a comprehensive digital halal ecosystem (Uddin et al., 2021; Novita et al., 2022; Al-shami & Abdullah, 2023; Aslan, 2023; Jubaedah et al., 2023).

Table 2. Mapping the Principles of *Maqāṣid al-Sharī'ah* within Digital Halal Governance

Principle of <i>Maqāṣid al-Sharī'ah</i>	Digital Halal Issues	Digital Governance Response	Expected Societal Outcome
<i>Ḥifẓ al-Dīn</i> (Protection of Religion)	Fake halal claims and non-compliant products	Digital halal certification, QR verification, integrated halal databases	Strengthened religious compliance and public trust
<i>Ḥifẓ al-Nafs</i> (Protection of Life)	Unsafe products and weak supply-chain monitoring	Blockchain traceability, IoT monitoring, digital quality assurance	Improved consumer safety and product integrity
<i>Ḥifẓ al-'Aql</i> (Protection of Intellect)	Digital misinformation and misleading promotion	Verified information platforms, digital literacy, transparent databases	Better consumer awareness and informed decision-making
<i>Ḥifẓ al-Māl</i> (Protection of Property)	Online fraud and insecure transactions	Secure payment systems, consumer protection, cybersecurity governance	Greater financial security and transaction reliability
<i>Ḥifẓ al-Nasl</i> (Protection of Lineage)	Unsustainable production and	Sustainable halal production, ethical	Long-term social sustainability and

Principle of <i>Maqāṣid al-Sharī'ah</i>	Digital Halal Issues	Digital Governance Response	Expected Societal Outcome
	unethical business practices	digital marketing, responsible governance	responsible consumption

Source: Authors' analysis, 2025.

The analytical mapping presented above demonstrates that *Maqāṣid al-Sharī'ah* functions not merely as a normative benchmark for determining halal compliance but also as a strategic governance framework capable of directing digital transformation toward sustainable public welfare. This finding extends previous studies that primarily concentrated on technological applications or regulatory compliance by emphasizing that digital innovation should be evaluated according to its contribution to the broader objectives of Islamic law. Digital certification, blockchain, artificial intelligence, and integrated compliance systems should therefore be regarded as governance instruments rather than purely technological tools. Their effectiveness depends on how successfully they strengthen institutional transparency, improve regulatory coordination, protect consumer rights, and reinforce ethical business practices. Previous research has confirmed that technological innovation can significantly improve halal supply-chain transparency and operational efficiency; however, technological progress remains vulnerable to fragmented governance, inconsistent certification standards, and unequal institutional capacity (Ali et al., 2021; Rejeb et al., 2021; Ghazali et al., 2022; Al-shami & Abdullah, 2023; Jubaedah et al., 2023). Consequently, the successful implementation of digital halal governance requires harmonization between technological infrastructure, regulatory institutions, and Islamic ethical values. From the perspective of *Maqāṣid al-Sharī'ah*, digital governance should continuously preserve public trust (*ḥifẓ al-dīn*), consumer safety (*ḥifẓ al-nafs*), reliable knowledge (*ḥifẓ al-'aql*), economic justice (*ḥifẓ al-māl*), and intergenerational sustainability (*ḥifẓ al-nasl*) as interconnected objectives rather than independent policy targets.

The analysis also reveals that Indonesia's digital halal ecosystem is entering a transitional phase in which technological innovation is advancing more rapidly than institutional adaptation. Although digital platforms have substantially expanded access to halal products and services, governance capacity has not developed at the same pace. Small and medium enterprises continue to encounter obstacles in digital certification, technological adoption, and regulatory compliance, while consumers frequently experience uncertainty regarding the authenticity and reliability of halal information available through digital platforms. Similar challenges have been identified in studies examining halal certification systems, digital entrepreneurship, pharmaceutical development, and halal tourism, all of which emphasize the importance of institutional coordination, regulatory harmonization, and stakeholder collaboration in ensuring sustainable halal governance (Tedjakusuma et al., 2023; Abdul Halim et al., 2024; Herdiana et al., 2024; Kurniawati et al., 2024; Salaheldeen et al., 2024). Therefore, the implementation of *Maqāṣid al-Sharī'ah* should not be confined to evaluating the halal status of products but should also guide the design of digital governance policies that encourage transparency,



accountability, innovation, and inclusive participation. In this regard, *Maqāṣid al-Sharī'ah* serves as a bridge connecting technological advancement with ethical governance, enabling digital transformation to generate not only economic efficiency but also social justice and sustainable public welfare. Building upon this analysis, the following section develops a conceptual model of *Maqāṣid-Based* Digital Halal Governance, integrating technological innovation, institutional collaboration, regulatory coherence, and stakeholder participation into a comprehensive framework for strengthening Indonesia's sustainable digital halal ecosystem.

Toward a Maqāṣid-Based Digital Halal Governance Framework

The preceding discussions demonstrate that the sustainability of Indonesia's digital halal ecosystem cannot rely exclusively on technological innovation or regulatory compliance. Instead, sustainable digital halal governance requires an integrated framework capable of harmonizing technological advancement, institutional collaboration, Islamic legal principles, and public participation. The findings synthesized from the reviewed literature indicate that digital transformation generates significant opportunities for improving transparency, traceability, consumer protection, and market accessibility, yet these opportunities remain constrained by fragmented governance structures, inconsistent certification mechanisms, limited digital literacy, and unequal technological capacity among stakeholders. Accordingly, the proposed *Maqāṣid-Based* Digital Halal Governance Framework (MDHGF) is developed as a conceptual model that positions *Maqāṣid al-Sharī'ah* as the normative foundation for coordinating interactions among government institutions, halal certification authorities, technology providers, business actors, academic institutions, and Muslim consumers. Unlike conventional governance models that prioritize regulatory compliance alone, this framework integrates ethical values with digital innovation to ensure that technological development contributes to *maṣlahah* (public welfare), institutional accountability, and sustainable socio-economic development. Such an approach is consistent with previous studies emphasizing that successful digital halal ecosystems require not only technological readiness but also collaborative governance, standardized regulations, consumer confidence, and continuous institutional innovation (Ahmad et al., 2017; Ali et al., 2021; Rejeb et al., 2021; Ghazali et al., 2022; Al-shami & Abdullah, 2023; Jubaedah et al., 2023).

The proposed framework emphasizes that digital halal governance should operate through a collaborative and adaptive governance system rather than a fragmented regulatory approach. Government institutions are responsible for establishing harmonized legal frameworks, strengthening regulatory oversight, and facilitating digital infrastructure that supports transparent halal certification and supervision. Halal certification authorities serve as the central coordinators responsible for ensuring that certification procedures remain credible, interoperable, and digitally accessible across various sectors of the halal economy. At the same time, technology providers contribute by developing blockchain-based traceability systems, artificial intelligence applications, Internet of Things (IoT) monitoring, and integrated digital platforms that enhance information accuracy and supply-chain transparency. Business actors,

particularly micro, small, and medium enterprises (MSMEs), become the primary implementers of digital halal practices through compliance with halal standards, digital reporting, and responsible business innovation. Academic institutions and research organizations support this ecosystem by producing evidence-based policy recommendations, technological innovations, and public education initiatives, while consumers actively participate by utilizing digital verification systems, reporting irregularities, and promoting responsible halal consumption. Therefore, digital halal governance should be understood as a collaborative ecosystem in which every stakeholder contributes to achieving the broader objectives of *Maqāṣid al-Sharī'ah*. Such a governance model strengthens institutional resilience while simultaneously improving consumer confidence, regulatory effectiveness, and the long-term sustainability of Indonesia's halal ecosystem (Suhartanto et al., 2021; Slamet et al., 2022; Aslan, 2023; Boğan et al., 2023; Tedjakusuma et al., 2023; Salaheldeen et al., 2024).

Table 3. Proposed Maqāṣid-Based Digital Halal Governance Framework (MDHGF)

Stakeholder	Primary Responsibility	Digital Instrument	Maqāṣid Orientation	Expected Outcome
Government	Regulatory harmonization, policy formulation, digital infrastructure	National digital governance platform	<i>Ḥifẓ al-Dīn</i> , <i>Ḥifẓ al-Māl</i>	Legal certainty and institutional accountability
Halal Certification Authority	Digital certification, compliance monitoring, integrated halal database	E-certification, QR verification, digital audit	<i>Ḥifẓ al-Dīn</i> , <i>Ḥifẓ al-Nafs</i>	Credible halal assurance
Technology Providers	Development of blockchain, AI, IoT, cybersecurity	Blockchain, AI, IoT, cloud systems	<i>Ḥifẓ al-'Aql</i> , <i>Ḥifẓ al-Māl</i>	Transparent and traceable halal ecosystem
Business Actors (MSMEs & Industry)	Halal compliance, digital reporting, innovation	E-commerce, ERP, digital supply chain	<i>Ḥifẓ al-Māl</i> , <i>Ḥifẓ al-Nasl</i>	Sustainable halal business practices
Universities & Researchers	Research, innovation, policy evaluation	Research platforms, digital knowledge dissemination	All five <i>Maqāṣid</i>	Evidence-based governance
Consumers & Communities	Digital verification, responsible	Mobile applications, QR scanners,	All five <i>Maqāṣid</i>	Consumer trust and sustainable halal lifestyle

Stakeholder	Primary Responsibility	Digital Instrument	Maqāṣid Orientation	Expected Outcome
	consumption, public participation	complaint platforms		

Source: Authors' analysis, 2025.

The proposed *Maqāṣid*-Based Digital Halal Governance Framework (MDHGF) contributes to the current literature by extending existing discussions beyond technological adoption toward an integrated governance paradigm that simultaneously incorporates legal, ethical, institutional, and technological dimensions. Previous studies have predominantly examined individual aspects of the halal ecosystem, including halal certification, blockchain-enabled supply chains, digital entrepreneurship, halal tourism, pharmaceutical development, or consumer purchasing behavior. While these studies have significantly enriched the understanding of digital transformation within specific sectors, they often remain fragmented and insufficiently connected through a unified governance perspective (Ali et al., 2021; Rejeb et al., 2021; Ghazali et al., 2022; Novita et al., 2022; Al-shami & Abdullah, 2023; Tedjakusuma et al., 2023). The MDHGF addresses this gap by positioning *Maqāṣid al-Sharī'ah* as the central normative foundation that aligns digital innovation with institutional coordination and sustainable public welfare. Under this framework, technological instruments such as blockchain, artificial intelligence, cloud-based certification systems, and integrated digital platforms are not considered end goals but strategic mechanisms for realizing the five essential objectives of Islamic law. Consequently, digital transformation is interpreted as a process of institutional reform that enhances transparency, strengthens accountability, protects consumers, encourages responsible business conduct, and promotes inclusive participation across the halal ecosystem. This conceptual integration provides a more comprehensive analytical perspective for understanding how digital governance can support Indonesia's aspiration to become a global leader in the halal economy while preserving the ethical principles embedded within *Maqāṣid al-Sharī'ah*.

From a policy perspective, the findings imply that strengthening Indonesia's digital halal ecosystem requires long-term collaboration rather than isolated technological interventions. Policymakers should prioritize the harmonization of halal regulations, interoperability among digital certification systems, enhancement of digital infrastructure, and capacity-building programs for halal industries, particularly micro, small, and medium enterprises. Likewise, educational institutions and research organizations should actively contribute by developing interdisciplinary research, digital literacy initiatives, and evidence-based policy recommendations that integrate Islamic legal values with emerging technologies. Future research may further validate the proposed MDHGF through empirical investigations involving government agencies, halal certification bodies, technology providers, industry representatives, and consumers across different regions of Indonesia and other Muslim-majority countries. Comparative studies examining digital halal governance models in various jurisdictions would also enrich theoretical understanding and practical policy development. Ultimately, the

MDHGF demonstrates that sustainable digital transformation is not merely measured by technological sophistication or economic performance but by its capacity to realize justice, transparency, consumer protection, institutional accountability, and public welfare in accordance with the objectives of *Maqāṣid al-Sharīʿah*. By integrating these dimensions into a single governance framework, this study offers both a theoretical contribution to the literature on Islamic digital governance and practical guidance for policymakers seeking to build a resilient, trustworthy, and sustainable halal ecosystem in the digital era (Abdul Halim et al., 2024; Abd Halim et al., 2024; Herdiana et al., 2024; Kurniawati et al., 2024; Längle et al., 2024; Naisabur et al., 2024; Salaheldeen et al., 2024).

CONCLUSION

This study demonstrates that digital transformation has fundamentally reshaped the development of the halal lifestyle in Indonesia by extending halal practices beyond traditional consumption into an integrated digital ecosystem encompassing halal certification, electronic commerce, tourism, pharmaceuticals, financial services, and supply-chain management. The findings reveal that digital technologies improve accessibility, transparency, traceability, and consumer participation while simultaneously introducing challenges related to regulatory fragmentation, inconsistent certification mechanisms, digital misinformation, institutional disparities, and uneven technological readiness. These findings confirm that digitalization should not be understood merely as technological modernization but as an institutional transformation requiring adaptive governance capable of balancing innovation with accountability, legal certainty, and public trust. Furthermore, this study shows that *Maqāṣid al-Sharīʿah* provides a comprehensive analytical framework through which digital halal governance can be evaluated according to its contribution to protecting religion, life, intellect, property, and future generations. Consequently, sustainable digital halal governance depends upon integrating technological innovation with Islamic ethical principles and collaborative institutional arrangements that collectively promote *maṣlaḥah* (public welfare).

The principal contribution and novelty of this research lie in the *development of the Maqāṣid-Based Digital Halal Governance Framework (MDHGF)*, which synthesizes digital technologies, halal governance, stakeholder collaboration, and the objectives of *Maqāṣid al-Sharīʿah* into a unified conceptual framework. Unlike previous studies that generally examine halal certification, blockchain adoption, halal tourism, consumer behavior, or digital commerce independently, this framework integrates technological, legal, institutional, and ethical dimensions into a comprehensive governance model for sustainable halal ecosystem development. Theoretically, the study expands the discourse on digital governance by positioning *Maqāṣid al-Sharīʿah* as both a normative and analytical foundation for evaluating digital transformation within the halal industry. Practically, the proposed framework offers strategic guidance for policymakers, halal certification authorities, technology developers, business actors, and educational institutions in strengthening regulatory coherence, digital

interoperability, institutional accountability, and consumer confidence while supporting Indonesia's aspiration to become a leading global halal economy.

Despite these contributions, this research has several limitations. The analysis is primarily based on qualitative literature synthesis and therefore has not empirically validated the proposed MDHGF through field investigations involving government agencies, halal certification bodies, industry practitioners, digital platform providers, and consumers. Moreover, the framework has not yet been quantitatively tested or comparatively examined across different regulatory environments outside Indonesia. Future research should therefore employ mixed-method, quantitative, or comparative cross-country approaches to evaluate the practical effectiveness of the proposed framework and to examine the integration of emerging technologies such as artificial intelligence, blockchain, big data analytics, and interoperable digital certification systems in strengthening sustainable halal governance. Such investigations will further refine the MDHGF while contributing to the advancement of Islamic legal studies, digital governance scholarship, and the sustainable development of the global halal ecosystem.

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