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Integrating the Metaverse into the Halal Value Chain: A Maqāṣid-Based Digital Innovation Framework for Global Halal Market Leadership

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Abstract

This study develops a Metaverse Halal Value Chain (MHVC) framework to integrate metaverse technology into Indonesia's halal value chain in order to enhance global market competitiveness. Using a qualitative case study approach, data were collected from 25 key informants, including halal entrepreneurs, certification auditors, regulators, academics, and Muslim consumers. Semi-structured interviews, participatory observation, and document analysis were examined through thematic analysis. The findings reveal four key insights: (1) the halal metaverse is perceived as a new spiritual-economic space embedding maqāṣid al-sharīʿah values in digital transactions; (2) digital integration improves certification transparency and cross-sector collaboration; (3) legitimacy and trust remain critical challenges in virtual halal authentication; and (4) Indonesia holds strategic potential to become a global halal ecosystem hub through value-driven digital governance. The proposed MHVC model integrates technological efficiency, collaborative networks, and ethical principles, offering both theoretical advancement and practical guidance for sustainable halal digital transformation.

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1. Introduction

The global halal industry has experienced significant expansion alongside the rapid growth of the Muslim population, increasing demand for halal lifestyles, and accelerating digital transformation (Elasrag, 2022). The *State of the Global Islamic Economy Report* projects that the global halal market will reach USD 1.3 trillion by 2025, encompassing food, pharmaceuticals, cosmetics, and Islamic finance (Purwanto, 2025). This growth reflects a structural shift in the halal industry from mere religious compliance toward a value-driven economic system grounded in ethical integrity and sustainability (Dusuki & Abdullah, 2021). In this evolving landscape, digitalization has become a strategic instrument for enhancing transparency, efficiency, and global competitiveness within the halal ecosystem.

Indonesia, home to more than 230 million Muslims, possesses substantial demographic and economic potential to become a global halal hub. The Indonesian Sharia Economy Masterplan 2024–2030 emphasizes strengthening halal industry competitiveness through technological innovation and institutional reform. However, structural challenges persist, including fragmented halal certification

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systems, limited interoperability among value chain actors, and uneven digital infrastructure (Adila et al., 2023; Hakim & Sugianto, 2024). These barriers hinder the optimization of Indonesia's halal value chain (HVC) in accessing global markets.

Technological innovations such as blockchain, artificial intelligence, and the Internet of Things (IoT) have been introduced to enhance halal traceability and certification integrity (Riani et al., 2025). Yet, the emergence of the metaverse presents a more transformative opportunity by enabling immersive, borderless, and interactive digital ecosystems (Hassan et al., 2022). Within the halal context, the metaverse has the potential to facilitate virtual certification processes, halal marketplaces, and cross-border collaboration while embedding Islamic ethical principles in digital governance (Santonio & Haron, 2022; Sugiana et al., 2024). However, the integration of virtual environments into halal systems raises critical concerns regarding legitimacy, trust, and sharia compliance (Fernando et al., 2024; Ellahi et al., 2025).

Existing literature predominantly focuses on technical aspects of halal digitalization, such as blockchain-based traceability and supply chain management (Dupi & Baloch, 2025; Putri et al., 2024). While conceptual discussions on halal marketing in the metaverse have emerged (Sugiana et al., 2024), empirical studies examining how industry actors interpret and operationalize metaverse integration within the halal value chain remain limited. Moreover, few studies integrate digital innovation frameworks with maqāṣid al-sharīʿah as an ethical foundation for halal governance in virtual environments (Ismail et al., 2025).

Addressing this gap, this study develops a Metaverse Halal Value Chain (MHVC) framework to examine how metaverse technology can be integrated into Indonesia's halal value chain to enhance global market access. Using a qualitative case study approach, the research explores the experiences and perceptions of halal entrepreneurs, regulators, certification bodies, academics, and Muslim consumers. The study aims to contribute theoretically by extending Halal Value Chain theory into the digital realm through maqāṣid-based governance principles (Karim, 2020), and practically by offering policy-relevant insights for strengthening Indonesia's strategic position as a global halal ecosystem leader.

2. Literature Review

Halal Value Chain Theory

The Halal Value Chain (HVC) concept extends Porter's value chain framework by embedding sharia compliance across every stage of production, processing, distribution, and consumption. Unlike conventional value chains that focus primarily on economic efficiency, HVC integrates spiritual integrity and halalan tayyiban principles throughout the supply network. Hakim and Sugianto (2024) argue that the effectiveness of Indonesia's HVC depends on institutional synergy among certification bodies, regulators, and industry actors. However, fragmentation and limited digital integration continue to constrain efficiency and transparency (Adila et al., 2023).

Recent developments expand HVC toward a value network perspective, emphasizing cross-actor collaboration and digital interoperability. Putri et al. (2024) highlight the importance of blockchain and IoT technologies in enhancing halal supply chain traceability. Similarly, Riani et al. (2025) demonstrate that digital integration can reduce operational costs and accelerate certification processes. Despite these advancements, inconsistencies in global halal standards and institutional legitimacy remain challenges (Ellahi et al., 2025). These structural limitations indicate that HVC requires not only technological upgrades but also governance innovation to sustain global competitiveness.

Within this evolving framework, the metaverse introduces a potential transformation of HVC from a linear chain into a digitally interconnected ecosystem. However, empirical examination of how virtual environments reshape halal value governance remains limited.

Digital Innovation and Technology Transformation

Digital transformation theories provide a foundation for understanding technological adoption in the halal industry. Rogers' Diffusion of Innovation theory explains how perceived usefulness and compatibility influence adoption rates. In the halal context, blockchain, Artificial Intelligence (AI), and IoT have been widely discussed as mechanisms to enhance traceability and data integrity (Dupi & Baloch, 2025).

Fernando et al. (2024) introduce the concept of a metaverse-based halal supply chain, suggesting that immersive digital environments enable real-time interaction among producers, regulators, and consumers. Hassan et al. (2022) further argue that Islamic fintech ecosystems in the metaverse era can facilitate cross-border halal transactions. However, infrastructure readiness and socio-cultural resistance remain major obstacles.

The Technology Acceptance Model (TAM) emphasizes perceived usefulness and ease of use as determinants of digital adoption. In halal ecosystems, religiosity and ethical alignment also influence acceptance. Noor et al. (2024) introduce the concept of halal servicescape in the metaverse, demonstrating that ethically designed digital environments enhance Muslim consumer trust. Meanwhile, the Resource-Based View (RBV) underscores the importance of organizational capabilities in managing digital innovation (Riani et al., 2025). Socio-Technical Systems (STS) theory further highlights that technological transformation must align with social readiness and digital literacy (Adinugraha et al., 2025).

Despite these theoretical insights, current literature largely focuses on technical and managerial aspects of digital halal systems. Limited studies explore how digital transformation intersects with spiritual values and governance structures in immersive virtual environments.

Islamic Economics and Maqāṣid al-Sharīʿah

Maqāṣid al-sharīʿah provides the ethical and philosophical foundation for Islamic economic activities, ensuring alignment with justice, welfare (maṣlaḥah), and sustainability. Dusuki and Abdullah (2021) emphasize that halal economic development must balance material growth with moral accountability. Ismail et al. (2025) further argue that maqāṣid strengthens global competitiveness by embedding ethical governance in halal industries.

In digital contexts, maqāṣid functions as a normative framework guiding innovation. Santonio and Haron (2022) propose maqāṣid-based governance for Industry 4.0 transformation. Susanti et al. (2024) highlight that the metaverse may serve as a platform for halal education and da'wah, yet it risks ethical ambiguity without sharia oversight. Ellahi et al. (2025) stress that legitimacy and integrity remain central challenges in digital halal systems.

Moomen et al. (2023) introduce a digital maqāṣid perspective emphasizing justice, transparency, and accountability in technological applications. However, empirical integration of maqāṣid principles into virtual halal ecosystems remains underexplored. This gap is critical because halal legitimacy depends not only on technological verification but also on moral trust rooted in amanah and 'adl.

Research Gap and Conceptual Synthesis

The review reveals three main gaps:

Existing HVC studies emphasize structural efficiency but insufficiently address virtualization and immersive ecosystems (Hakim & Sugianto, 2024; Putri et al., 2024).

Digital halal research focuses on blockchain and traceability rather than metaverse governance (Dupi & Baloch, 2025; Fernando et al., 2024).

Maqāṣid-based digital ethics frameworks are conceptually discussed but rarely operationalized within virtual halal value chains (Ismail et al., 2025).

To address these gaps, this study integrates Halal Value Chain theory (see Table 1), digital innovation theory, and maqāṣid al-sharīʿah into a unified framework termed the Metaverse Halal Value Chain (MHVC). This framework conceptualizes the metaverse as an ethical digital infrastructure that strengthens collaboration, transparency, and spiritual legitimacy within the global halal ecosystem.

Table 1. Summary of Theoretical Foundations

Theoretical Framework	Key Focus	Contribution to This Study
Halal Value Chain (Hakim & Sugianto, 2024)	Halal integrity across production stages	Structural basis for digital integration
Digital Innovation (Fernando et al., 2024)	Technological transformation in halal supply chain	Explains metaverse adoption dynamics
Maqāṣid al-Sharīʿah (Ismail et al., 2025)	Ethical governance and welfare	Provides moral foundation for MHVC

Conceptual Integration of MHVC

The conceptual integration (see Table 1) of the Metaverse Halal Value Chain (MHVC) through three interlinked layers that collectively form a collaborative, transparent, and spiritually grounded halal ecosystem. The first layer represents the Physical Halal Value Chain, which encompasses core activities including production, certification, distribution, and consumption. This layer ensures that halal integrity is maintained throughout the tangible stages of economic activity. The second layer, the Digital Metaverse Integration Layer, embeds virtual marketplace platforms, certification simulation systems, and blockchain-based tracking mechanisms into the value chain. This layer enhances real-time interaction, transparency, and cross-border connectivity among stakeholders. The third layer, the Maqāṣid Governance Layer, functions as the ethical foundation of the system by incorporating the principles of ḥifẓ al-dīn (protection of religion), ḥifẓ al-māl (protection of wealth), and ḥifẓ al-ʿaql (protection of intellect) as normative safeguards. Together, these interconnected layers establish an integrated halal ecosystem that aligns technological innovation with spiritual and moral accountability.

3. Methodology

Research Design

This study employs a qualitative case study design to explore how the metaverse–halal integration model operates within Indonesia's halal value chain (see Table 2). A qualitative approach was selected to capture the lived experiences, interpretations, and social meanings constructed by halal industry actors in relation to digital transformation. According to Yin (2021), case study research is appropriate when examining contemporary phenomena embedded within real-life contexts, particularly when the boundaries between the phenomenon and context are indistinct. The integration of metaverse technology into halal governance represents such a complex and evolving phenomenon.

The research adopts an interpretive paradigm, emphasizing subjective understanding rather than statistical generalization. This design allows for an in-depth examination of how technological, institutional, and spiritual dimensions intersect in the development of a Metaverse Halal Value Chain (MHVC).

Research Setting and Duration

The study was conducted in Jakarta, Bogor, and Bandung, which are strategic hubs for Indonesia's digital halal ecosystem. These cities were selected due to their concentration of halal industry actors, certification institutions, technology providers, and digital innovation initiatives. Data collection took

place from June to November 2025, allowing sufficient time for observation, interviews, iterative analysis, and validation of findings.

Participants and Sampling Strategy

The study involved 25 key informants selected through purposive sampling, followed by snowball sampling to broaden perspectives across the halal value chain. Selection criteria included: Minimum one year of involvement in digital halal systems, Direct engagement in halal production, certification, regulation, or consumption, Familiarity with metaverse or digital platform integration in halal activities.

The informants consisted of: Halal entrepreneurs, Certification auditors, Government regulators, Academics, Technology developers, Muslim consumers actively using digital halal platforms. Snowball sampling was applied to identify additional participants recommended by initial informants, ensuring diversity of viewpoints from upstream to downstream actors within the halal value chain.

Data Collection Techniques

Data were collected using three complementary techniques to ensure methodological triangulation:

Semi-Structured Interviews, In-depth semi-structured interviews were conducted with all 25 informants. Each interview lasted between 60–90 minutes and was audio-recorded with consent. This format enabled flexibility while maintaining alignment with research objectives.

Participatory Observation, The researcher engaged in participatory observation during halal digital seminars, metaverse-based halal exhibitions, and digital certification training sessions. This allowed direct examination of interaction patterns and real-time technological practices.

Document analysis included: Halal certification reports, Government policy documents, Industry publications, Screenshots and interface observations of halal metaverse platforms. These three methods strengthened data richness and internal validity.

Data Analysis

Data analysis followed the interactive thematic analysis model of Miles and Huberman (2014), which consists of three stages:

Data Condensation – Coding and identifying meaning units from interview transcripts, observation notes, and documents. Data Display – Organizing themes into matrices and conceptual maps to identify relationships.

Conclusion Drawing and Verification – Interpreting patterns and validating findings iteratively.

Thematic categories were developed inductively and included: Interpretation of the halal metaverse, Digitalization in halal certification, Legitimacy and trust in virtual systems, Integration of maqāṣid values in digital governance. The iterative analysis process ensured alignment between empirical findings and theoretical frameworks.

Validity and Trustworthiness

To ensure research rigor, this study applied credibility and trustworthiness criteria as outlined by Creswell and Poth (2018):

Triangulation, Source triangulation compared perspectives from entrepreneurs, regulators, auditors, and consumers. Method triangulation cross-verified interviews, observations, and documentation.

Member Checking, Interview summaries and interpretations were returned to selected informants to confirm accuracy and meaning.

Audit Trail, Comprehensive field notes, coding decisions, and analytical memos were systematically documented to ensure transparency and dependability. These procedures strengthened credibility, transferability, dependability, and confirmability.

Table 2. Summary of Research Methodology

Component	Description
Research Design	Qualitative case study (Yin, 2021)
Approach	Interpretive paradigm
Locations	Jakarta, Bogor, Bandung
Participants	25 key informants
Sampling	Purposive and snowball
Data Collection	Interviews, observation, documentation
Analysis	Thematic analysis (Miles & Huberman, 2014)
Validation	Triangulation, member checking, audit trail (Creswell & Poth, 2018)

4. Results

The thematic analysis generated four major themes that explain how metaverse integration reshapes Indonesia's halal value chain: (1) the halal metaverse as a spiritual-economic space; (2) digital integration and cross-sector collaboration; (3) legitimacy and trust challenges in virtual halal systems; and (4) Indonesia's strategic positioning as a global halal ecosystem hub.

The Halal Metaverse as a Spiritual-Economic Space

Findings indicate that halal industry actors interpret the metaverse not merely as a technological innovation but as a spiritually embedded economic environment. Entrepreneurs emphasized that virtual halal spaces are designed to reflect Islamic values, integrating visual symbols, ethical messaging, and religious atmosphere into digital marketplaces. This aligns with the halal servicescape concept proposed by Noor et al. (2024), where digital environments shape religiously meaningful consumption experiences.

Several informants described the metaverse as a medium for da'wah and moral branding. Rather than focusing solely on product promotion, digital halal platforms incorporate Islamic aesthetics and ethical narratives. This reflects what can be termed digital religiosity, where faith-based values guide economic behavior even in virtual settings. The findings extend Susanti et al. (2024), who highlight that virtual halal environments can function as educational and spiritual platforms.

Importantly, actors emphasized the role of niyyah (intention) and barakah (divine blessing) in digital transactions. This demonstrates that spiritual accountability remains central despite technological mediation. Thus, the metaverse is perceived as a dual-layered space integrating worship and commerce within a single digital ecosystem.

Digital Integration within the Halal Value Chain

The second theme reveals that metaverse integration enhances transparency and collaboration across the halal value chain. Participants reported improved coordination between producers, certification bodies, and consumers through digital platforms. Blockchain-based tracking and virtual certification simulations increase traceability and reduce information asymmetry.

These findings support Riani et al. (2025), who argue that technological integration strengthens halal supply chain efficiency. Additionally, the collaborative interaction observed among stakeholders

reflects the value network perspective discussed by Putri et al. (2024). Unlike conventional linear supply chains, the metaverse enables real-time multi-actor engagement.

Observation during halal digital exhibitions showed that regulators, entrepreneurs, and consumers could interact simultaneously within immersive environments. This indicates a structural transformation of the Halal Value Chain (HVC) into a digitally networked ecosystem. However, digital readiness and infrastructure disparities remain uneven across regions, consistent with challenges identified by Adinugraha et al. (2025).

Legitimacy and Trust Challenges in Virtual Halal Systems

Despite technological advantages, trust and legitimacy emerged as significant concerns. Many consumers expressed hesitation regarding digital-only halal certification. Physical documentation and visible authority symbols remain deeply embedded in public perception.

These concerns align with Ellahi et al. (2025), who emphasize that integrity challenges persist in digital halal systems. Informants stressed that technological verification alone is insufficient without ethical governance grounded in amanah (trustworthiness). This highlights a dual dimension of trust: technical transparency and moral credibility.

The findings indicate a perception gap between business actors and consumers. While entrepreneurs perceive digital systems as efficient and reliable, consumers require stronger institutional assurance. This reinforces the importance of maqāṣid-based governance in digital halal ecosystems (Ismail et al., 2025).

Indonesia's Strategic Opportunity as a Global Halal Ecosystem Hub

The fourth theme highlights Indonesia's strategic potential to lead the global halal digital transformation. Government officials and industry leaders emphasized national initiatives aimed at integrating digital technologies with halal governance systems. Collaborative efforts with international halal authorities further strengthen cross-border positioning.

From a Resource-Based View (RBV) perspective, Indonesia's demographic strength, institutional legitimacy, and emerging digital infrastructure constitute strategic assets (Riani et al., 2025). However, participants stressed that technological advancement must be accompanied by maqāṣid-oriented ethical awareness to sustain long-term competitiveness.

The findings suggest (see Table 3) that Indonesia's advantage lies not only in production capacity but also in its ability to embed spiritual values into digital innovation. This positions the country as a potential pioneer of a value-driven global halal ecosystem.

Table 3. Summary of Key Findings

Theme	Empirical Insight	Theoretical Alignment
Spiritual-Economic Space	Metaverse integrates worship and commerce	Halal servicescape (Noor et al., 2024)
Digital Integration	Blockchain and virtual certification enhance transparency	Digital innovation theory (Riani et al., 2025)
Trust and Legitimacy	Moral and institutional assurance required	Integrity framework (Ellahi et al., 2025)
Global Leadership Potential	Indonesia combines digital and spiritual assets	RBV and maqāṣid governance

The empirical findings validate the three-layer conceptual structure of MHVC:

Physical Halal Value Chain Layer – production, certification, distribution, consumption. Digital Metaverse Integration Layer – virtual marketplace, certification simulation, blockchain traceability.

Maqāṣid Governance Layer – ḥifẓ al-dīn, ḥifẓ al-māl, and ḥifẓ al-ʻaql as ethical safeguards. The interaction of these layers demonstrates how technological efficiency and spiritual accountability co-exist within a unified halal ecosystem.

Synthesis of Results

Overall, the results demonstrate that metaverse integration is not merely a technological shift but a socio-spiritual transformation of the halal value chain. The findings extend prior research (Fernando et al., 2024; Sugiana et al., 2024) by empirically showing how industry actors internalize digital transformation within Islamic ethical frameworks. The MHVC model emerges as a collaborative, transparent, and spiritually grounded system that bridges economic competitiveness and maqāṣid al-sharīʿah principles.

5. Discussion

This study demonstrates that integrating the metaverse into Indonesia's halal value chain represents not merely a technological enhancement but a structural and normative transformation of halal governance. The findings reveal that digital innovation, when embedded within maqāṣid al-sharīʿah principles, reconfigures the halal ecosystem into a collaborative, transparent, and spiritually grounded network.

Reframing the Halal Value Chain in the Metaverse Era

The empirical results extend the Halal Value Chain (HVC) theory proposed by Hakim and Sugianto (2024) by shifting its structure from a linear production-distribution model to a digitally interconnected value network. While traditional HVC emphasizes integrity across physical stages, this study shows that the metaverse enables simultaneous multi-actor interaction within immersive environments. This transformation aligns with the value network perspective highlighted by Putri et al. (2024), yet introduces a distinctive spiritual dimension absent in conventional supply chain models.

Digital platforms incorporating blockchain-based tracking and certification simulations reinforce transparency and traceability, supporting findings from Riani et al. (2025). However, unlike purely technical integration models discussed by Dupi and Baloch (2025), this study demonstrates that technological efficiency alone does not ensure halal legitimacy. Instead, legitimacy emerges from the intersection of digital verification and ethical governance.

Digital Spirituality and the Halal Servicescape

A key contribution of this research lies in conceptualizing the halal metaverse as a spiritual-economic space. Noor et al. (2024) introduced the concept of halal servicescape, emphasizing how virtual environments shape Muslim consumption experiences. This study expands that notion by showing that spirituality in the metaverse extends beyond consumer perception to production processes, certification governance, and collaborative interaction.

The integration of Islamic aesthetics, ethical narratives, and moral intention (niyyah) indicates the emergence of digital religiosity within economic systems. Susanti et al. (2024) argue that virtual halal environments can function as educational platforms; this study further demonstrates that they also function as governance infrastructures embedding maqāṣid values in economic transactions.

Thus, the metaverse is not merely a marketing tool but an epistemic space in which Islamic economic values are operationalized.

Trust, Legitimacy, and Maqāṣid-Based Governance

Despite technological advancements, the findings reveal persistent trust challenges. Consumers remain cautious regarding virtual halal certification, echoing integrity concerns identified by Ellahi et al. (2025). This study deepens that perspective by highlighting a dual dimension of trust: algorithmic transparency and moral accountability.

Maqāṣid al-sharīʿah provides the normative foundation for addressing this legitimacy gap. As emphasized by Ismail et al. (2025), maqāṣid strengthens competitiveness by embedding justice and welfare in governance structures. In the digital context, principles such as ḥifẓ al-dīn (protection of religion), ḥifẓ al-māl (protection of wealth), and ḥifẓ al-ʻaql (protection of intellect) must inform technological design and regulatory frameworks.

Santonio and Haron (2022) argue that maqāṣid-based governance is essential in Industry 4.0 transformation. The present study empirically validates this argument within immersive digital ecosystems, demonstrating that spiritual legitimacy complements technical verification mechanisms.

Strategic Implications for Indonesia's Global Positioning

From a geopolitical and strategic perspective, the findings suggest that Indonesia's competitive advantage lies in combining demographic strength, institutional legitimacy, and digital innovation capabilities. This aligns with the Resource-Based View (RBV) analysis highlighted by Riani et al. (2025), which underscores internal capability development as a determinant of long-term competitiveness.

However, this study extends RBV by incorporating spiritual capital as a strategic asset. Indonesia's ability to integrate maqāṣid principles into digital governance differentiates it from other halal-producing countries. Thus, leadership in the global halal ecosystem depends not only on technological adoption but on value-driven digital transformation.

Theoretical Expansion of the Metaverse Halal Value Chain (MHVC)

The discussion validates the MHVC model as a three-layer system (see Table 4):

Operational Layer – Physical halal value chain activities. Technological Layer – Metaverse integration, blockchain traceability, digital collaboration. Normative Layer – Maqāṣid-based ethical governance ensuring justice, transparency, and welfare. These layers interact dynamically to create a spiritually grounded digital halal ecosystem.

Table 4. Theoretical Contributions of the Study

Dimension	Existing Literature	Contribution of This Study
Halal Value Chain	Linear integrity framework (Hakim & Sugianto, 2024)	Transformed into immersive digital network
Digital Innovation	Technical efficiency focus (Dupi & Baloch, 2025)	Integrated with spiritual governance
Maqāṣid Framework	Normative ethical model (Ismail et al., 2025)	Operationalized in virtual halal ecosystem

Policy Implications and Recommendations

Based on the findings, several policy implications emerge:

Strengthening Digital Halal Governance Infrastructure, Regulatory bodies such as BPJPH and MUI should integrate blockchain-based verification systems within metaverse platforms to ensure transparent and tamper-proof certification processes.

Developing Cross-Border Halal Digital Standards, Indonesia should initiate collaborative frameworks with international halal authorities to harmonize digital certification standards and enhance global interoperability.

Embedding Maqāṣid Principles in Digital Regulation, National halal digital policies must explicitly incorporate maqāṣid safeguards to ensure technological innovation aligns with justice, welfare, and ethical accountability.

Enhancing Digital Literacy and Sharia Competence, Universities and Islamic institutions should develop interdisciplinary curricula combining digital technology, halal management, and maqāṣid al-sharīʿah to prepare future halal digital leaders.

Encouraging Public–Private Innovation Ecosystems, Partnerships between government agencies, technology startups, and halal industry actors should be strengthened to accelerate ethical digital innovation within the halal sector.

Concluding Reflection of the Discussion

Overall, this study advances the discourse on halal digital transformation by demonstrating that the metaverse can function as both technological infrastructure and moral governance space. The MHVC model illustrates how economic efficiency, collaborative networks, and maqāṣid-based ethics converge to shape a sustainable and globally competitive halal ecosystem.

6. Conclusion

This study concludes that the integration of the metaverse into Indonesia's Halal Value Chain (HVC) represents a transformative shift in halal governance, combining technological innovation with spiritual and ethical foundations. The findings demonstrate that the halal metaverse functions not merely as a digital marketplace but as a spiritually embedded economic space where production, certification, and consumption are aligned with maqāṣid al-sharīʿah principles. This reinforces the argument that halal integrity must extend beyond physical processes to include virtual governance systems (Hakim & Sugianto, 2024; Noor et al., 2024).

Empirically, the study reveals that metaverse integration enhances transparency, cross-sector collaboration, and real-time traceability within the halal ecosystem, consistent with digital transformation insights by Riani et al. (2025). However, legitimacy and trust remain critical challenges, echoing concerns regarding integrity and verification in digital halal systems (Ellahi et al., 2025). The results highlight that technological efficiency alone is insufficient; moral credibility grounded in amanah and maqāṣid values is essential for sustaining consumer confidence (Ismail et al., 2025; Santonio & Haron, 2022).

Theoretically, this research advances the Halal Value Chain framework by introducing the Metaverse Halal Value Chain (MHVC) model, which integrates three interdependent dimensions: operational efficiency, immersive digital infrastructure, and maqāṣid-based ethical governance. This model extends existing digital halal literature (Dupi & Baloch, 2025; Fernando et al., 2024) by demonstrating that virtual ecosystems can serve as instruments of both economic competitiveness and spiritual accountability.

Practically, the findings position Indonesia as a potential leader in the global halal ecosystem by leveraging demographic strength, institutional legitimacy, and value-driven digital innovation. Sustainable leadership in the halal digital era depends not solely on technological adoption, but on the ability to embed justice, transparency, and welfare within emerging digital infrastructures. Thus, the halal metaverse should be understood not merely as a technological advancement, but as a strategic civilizational project that harmonizes faith, innovation, and global economic participation.

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