

Digital Transformation in the Halal Industry: Enhancing Global Trade Competitiveness through an Islamic Business Ethics Framework

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ABSTRACT

This study explores the contribution of digital transformation to improving the competitiveness of the halal industry by integrating advanced technologies with Islamic business ethics. It examines the role of emerging technologies—such as blockchain, artificial intelligence (AI), the Internet of Things (IoT), and big data analytics—in enhancing transparency, operational efficiency, and accountability across the halal value chain, thereby strengthening consumer trust in product authenticity. Employing a qualitative research design based on a literature review, this study analyzes how digital technologies can reinforce halal industry competitiveness from an Islamic ethical perspective. The findings reveal that the digitalization of halal certification, through initiatives such as SIHALAL and SEHATI, streamlines the halal certification process, particularly for Micro, Small, and Medium Enterprises (MSMEs). Digital innovation not only expedites halal verification but also enhances product credibility and market value at the international level. Nevertheless, several challenges persist, including disparities in digital literacy, inadequate technological

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infrastructure, and limited public awareness regarding the reliability of online halal certification information. In addressing these challenges, the application of Islamic business ethics is essential. Ethical principles such as *amanah* (trustworthiness), *sidq* (honesty), and *adl* (justice) should guide the implementation of digital technologies to ensure that digitalization promotes not only economic efficiency but also social equity and public welfare. Integrating Islamic values with digital innovation is expected to foster a competitive, inclusive, and sustainable global halal ecosystem, positioning the halal industry as a key driver of a just and value-based Shariah economy.

INTRODUCTION

The development of digital transformation has had a significant impact on various sectors of life, including the halal industry. Since the development of the halal industry in member countries of the Organization of Islamic Cooperation (OIC) in the 1970s, the halal trend has become a global phenomenon dominated not only by Muslim countries but also by non-Muslim countries (Rasyidah et al., 2025). The use of digital technology through social media, e-commerce platforms, and digital payment systems has fundamentally changed the way producers and businesses market and distribute their products. This transformation aims not only to increase efficiency and market reach but also to respond to changes in consumer behavior, which is increasingly digitalized, rational, and critical in determining product choices. One aspect of primary concern in Muslim communities is the halal certification of a product. Halal certification not only represents adherence to Islamic teachings but also reflects quality, safety, and ethics in the production and distribution process (Sahrani, 2025).

The shift in consumer behavior toward a digital lifestyle requires halal industry players to adapt quickly. The growth of the halal market in the food industry is partly driven by the growing Muslim population and consumer interest in ethical and sustainable food choices (Sunmola et al., 2025). Muslims are increasingly selective in choosing products and services that are not only high-quality but also compliant with Shariah principles. Product halal certification has become a key value determining consumer trust and loyalty. The concept of halal has now expanded from merely meeting religious standards to a symbol of integrity, cleanliness, safety, and sustainability. This trend is driving the formation of a global halal economic ecosystem that is digitally connected through e-commerce, halal marketplaces, and technology-based halal certification.

According to the Global Islamic Economy Report, the global halal market value is estimated to reach US\$1.3 trillion by 2025 or around Rp20,670 trillion, increasing from US\$899.9 billion in 2018 with an average annual growth rate of 5.2% during 2018–2028. Meanwhile, the global halal market value is estimated to reach US\$3.2 trillion by 2028. Halal products cover various sectors, such as food and beverages (US\$1.27 trillion), fashion (US\$295 billion), halal cosmetics and pharmaceuticals (US\$95 billion), tourism, and Islamic finance. Interestingly, several non-Muslim countries dominate the global halal industry, including the United States, India, Russia, Argentina, and Brazil. In Southeast Asia, the halal industry is still dominated by Thailand. Indonesia is currently the fourth largest consumer of halal products in the world, after Saudi Arabia, Malaysia, and the United Arab Emirates. Brazil, with a Muslim population of less than 1%, is the largest exporter of halal poultry meat to the Middle East, while Australia plays a significant role as a supplier of halal beef to OIC countries. China dominates halal apparel exports, South Korea is developing halal tourism, Japan is making the halal industry an economic driver, Thailand aspires to become the "halal kitchen of the world," and London aims to become a center of Islamic finance in the West (Rasyidah et al., 2025).

Furthermore, digital transformation has strengthened the halal industry ecosystem through various technological innovations, such as blockchain, artificial intelligence (AI), and big data analytics, which

support certification processes, supply chain tracking, and transparency of halal product information. These technologies guarantee product authenticity and halal status, while also increasing consumer confidence in the global market. Thus, the synergy between digital transformation and Islamic economic principles has significant potential to strengthen the competitiveness of the halal industry and promote sustainable and equitable economic development.

However, although the development of digital technology has provided significant opportunities for the growth of the halal industry, various challenges remain that need to be addressed. One of these is the gap in the use of digital technology among business actors, particularly micro, small, and medium enterprises (MSMEs), which often face limited resources, digital knowledge, and access to technological infrastructure. Furthermore, there is still a lack of public understanding of digital halal certification mechanisms and the validity of information circulating on online platforms. This situation can raise consumer doubts about the authenticity and credibility of products claiming to be halal.

On the other hand, the role of the government and related institutions, such as the Halal Product Assurance Agency (BPJPH) in Indonesia and various international halal certification authorities, is crucial in ensuring digitally integrated halal standards, regulations, and verification systems. Collaboration between the government, certification bodies, and industry players is expected to create a more transparent, efficient, and accountable digital halal ecosystem. Therefore, the study of digital transformation in strengthening the halal industry is highly relevant in today's global economic context. The integration of Shariah principles and technological innovation is not only able to increase the competitiveness of halal products in the international market, but also contributes to the Sustainable Development Goals (SDGs), particularly in the aspects of inclusive economic growth, empowering MSMEs, and improving the welfare of the people.

The application of digital technology opens up significant opportunities for the halal industry to increase global trade competitiveness. Blockchain-based tracking systems can ensure supply chain transparency, while AI-based data analytics helps to better understand Muslim consumer preferences. These innovations strengthen public trust in the authenticity of halal products while expanding international market reach. However, the digital divide remains a challenge, especially for MSMEs that have not yet fully mastered halal digital technology and systems.

Several previous studies discussed the significant influence of halal certification on food products on purchasing decisions, where purchasing decisions increase with increased trust (Benedict & Nawangwulan, 2024). Similarly, research done by Muhammad (2025) demonstrates that digital transformation plays a crucial role in strengthening the transparency and efficiency of the halal certification process. Businesses now consistently display official halal certification in their digital campaign strategies as a guarantee of product authenticity and compliance with Shariah standards. The use of digital technology, such as online platforms for halal certificate verification and data-driven tracking systems, not only increases consumer trust but also accelerates access to information regarding a product's halal status. Thus, digital transformation contributes significantly to strengthening credibility, efficiency of the certification process, and increasing the competitiveness of halal products in the global market (Muhammad, 2025).

The success of digital transformation in the halal industry depends on the implementation of an Islamic business ethics framework that emphasizes the values of fairness, honesty, responsibility, and sustainability. Islamic business ethics serve as a moral foundation that ensures that every economic activity is not solely profit-oriented but also brings benefits to the wider community. The integration of digital technology and Islamic ethical values is expected to create a competitive and equitable global halal trade system.

This phenomenon demonstrates the need for in-depth study of how digital transformation can be leveraged to strengthen the competitiveness of the halal industry from an Islamic business ethics perspective. A comprehensive analysis of technological, economic, and Shariah-compliant aspects will make a significant contribution to the development of a sustainable halal industry strategy oriented toward the benefit of the community.

LITERATURE REVIEW

Digital Transformation and Technological Innovation in the Halal Industry

Digital transformation in the halal industry has become a crucial catalyst for efficiency, transparency, and global competitiveness. Technologies such as blockchain, the Internet of Things (IoT), and artificial intelligence (AI) offer solutions to ensure real-time traceability of halal products from upstream to downstream (Alamsyah et al., 2022). Blockchain enables every stage of the halal production process to be permanently recorded and verified, thereby increasing consumer confidence in product authenticity (Susanto et al., 2025).

The integration of AI and IoT also strengthens the halal system with predictive analysis capabilities and monitoring of logistics conditions such as temperature, time, and distribution location (Ghalih et al., 2025). This technology not only improves supply chain efficiency but also minimizes the risk of halal violations due to human error or data manipulation. However, key challenges still include limited digital infrastructure, high implementation costs, and low technological literacy among micro and medium-sized enterprises (Subandono et al., 2025). Therefore, successful digital transformation requires inclusive policy support and cross-sector collaboration.

Digitalization of Halal Certification and Empowerment of MSMEs

Digitalization of halal certification is a strategic step in strengthening the halal industry ecosystem in Indonesia, especially for MSMEs. The government-initiated SIHALAL (Halal Information System) and SEHATI (Free Halal Certification) programs have opened wider access for businesses to obtain halal certification online and free of charge (Yuliani, 2023). Research shows that this innovation can accelerate the certification process and increase business awareness of the importance of halal legality in improving product competitiveness (Sari, 2023).

However, recent research highlights a digital divide among MSMEs, particularly in terms of technical skills in operating digital systems, understanding halal standards, and managing administrative documents (Subandono et al., 2025) therefore, empowering MSMEs requires not only digital facilities but also intensive training, technical assistance, and financial incentives to enable businesses to utilize technology sustainably (Albar et al., 2025). With this approach, digitalization becomes not just an administrative tool, but an instrument for empowering the people's economy.

Islamic Business Ethics as a Normative Framework for Digital Transformation

Digitalization of halal certification is a strategic step in strengthening the halal industry ecosystem in Indonesia, especially for MSMEs. The government-initiated SIHALAL (Halal Information System) and SEHATI (Free Halal Certification) programs have opened wider access for businesses to obtain halal certification online and free of charge (Yuliani, 2023). Research shows that this innovation can accelerate the certification process and increase business awareness of the importance of halal legality in improving product competitiveness (Sari, 2023).

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METHODOLOGY

This study employed a qualitative research method with a literature review approach. This approach was chosen to gain a deep understanding of the concepts, principles, and implementation of digital transformation in the halal industry. Literature review can be understood as the activity of reading, recording, and analyzing various sources such as books, scientific journals, previous research results, and relevant websites to serve as scientific study material. In this study, the researcher gathered various information related to the halal industry, digitalization, global competitiveness, and the application of Islamic business ethics from academic literature and relevant laws and regulations. Through this approach, the researcher sought to understand the context, principles, and dynamics underlying the digital transformation process in the halal industry, particularly in efforts to increase efficiency, transparency, and consumer trust in the global market.

Furthermore, this study analyzes how the application of Islamic business ethics serves as a crucial foundation for the digital transformation process, ensuring that it is not solely oriented towards economic profit but also ensures fairness, honesty, and sustainability. This study also discusses the various challenges and opportunities facing the halal industry amidst globalization and advances in digital technology. Therefore, this research is expected to contribute to strengthening global trade competitiveness in line with Islamic moral and spiritual values.

RESULT AND DISCUSSION

Digital Transformation as a Driver of Innovation in the Halal Industry

This study employed a qualitative research method with a literature review approach. This approach was chosen to gain a deep understanding of the concepts, principles, and implementation of digital transformation in the halal industry. Literature review can be understood as the activity of reading, recording, and analyzing various sources such as books, scientific journals, previous research results, and relevant websites to serve as scientific study material. In this study, the researcher gathered various information related to the halal industry, digitalization, global competitiveness, and the application of Islamic business ethics from academic literature and relevant laws and regulations. Through this approach, the researcher sought to understand the context, principles, and dynamics underlying the digital transformation process in the halal industry, particularly in efforts to increase efficiency, transparency, and consumer trust in the global market.

The halal industry is rooted in Islamic principles that regulate permissible (halal) practices in accordance with Shariah law, particularly in the context of food, finance, and various other consumer goods and services. According to Shariah law, halal products must meet specific religious criteria, such as not containing alcohol, pork derivatives, or other prohibited (haram) substances. Over time, the definition of halal has expanded beyond its purely religious dimension to encompass modern ethical issues such as sustainability, animal welfare, and product safety (Judijanto et al., 2025).

Digital transformation in Indonesia's halal industry has undergone several key phases influenced by technological advancements and the dynamics of global market demand. Based on the Master Plan for Indonesia's Halal Industry 2023–2029, the roadmap for national halal industry development is structured in stages through several strategic phases (Qizwini & Purnama, 2025) as presented in the following table

Tabel 1. Milestones of Digital Transformation in the Halal Industry

Year	Phase
2023	Enhancement of Halal Awareness
2024	Development of the Global Halal Value Chain
2025-2026	Establishment of the Global Halal Brand
2027-2028	Formation of the Global Halal Hub
2029	Becoming the Global Halal Production Center

Source: National Committee for Islamic Economy and Finance (KNEKS), 2023.

Digital transformation opens vast opportunities for the halal industry to expand its global market through digital technologies such as blockchain, artificial intelligence (AI), cloud computing, and big data analytics. Blockchain technology serves as a digital ledger infrastructure that securely, transparently, and permanently records, stores, and verifies transactions within a peer-to-peer network, where every transaction can be accessed and verified by all parties involved without the need for a central authority (Ridhwan et al., 2020). Blockchain enables transparent and real-time tracking of the halal supply chain, thereby enhancing consumer trust in halal certification. AI is utilized to predict market demand and improve production efficiency, while big data assists in analyzing Muslim consumer behavior (Shofiyuddin et al., 2024).

Digital transformation in the halal industry occurs not only on a large scale but has also been increasingly adopted by MSMEs. West Kalimantan, particularly Pontianak City, holds a strategic position as one of the region's economic centers. The MSME sector serves as a key driver of the regional economy, contributing significantly to the Regional Gross Domestic Product (RGDP), accounting for approximately 30%. The role of MSMEs is reflected not only in their contribution to the local economy but also in their capacity to create employment opportunities, reduce unemployment rates, and improve community welfare. In the context of the halal industry, many MSME entrepreneurs in Pontianak City have begun to recognize the importance of halal certification as both an added value for their products and a guarantee of compliance with Shariah principles (Barianto et al., 2024).

However, amid the rapid pace of globalization and digital transformation, MSME entrepreneurs in Pontianak face increasingly intense competition, both in domestic and international markets. This situation demands that business actors adapt and adopt various innovative strategies to remain competitive in a sustainable manner. One strategic step to enhance competitiveness is through the fulfillment of halal standards and certification. Halal certification serves not only as proof of compliance with Shariah principles but also as an indicator of product quality, cleanliness, and safety that is recognized globally.

In the context of global trade, halal certification is an essential instrument for expanding export market access, particularly to countries with large Muslim populations such as Malaysia, Brunei Darussalam, and the Middle East. Therefore, the implementation of halal certification for MSME products in Pontianak City is not merely a religious obligation but also a key strategy to enhance global trade competitiveness through reputation, consumer trust, and product attractiveness in international markets.

Digital transformation is a fundamental prerequisite for Indonesia to realize its vision of becoming a global halal industry hub. As the country with the world's largest Muslim population, Indonesia possesses a vast domestic market potential and significant export opportunities. However, to meet the expectations of the global halal market particularly in terms of transparency, efficiency, and accountability Indonesia must swiftly adopt digital technologies such as Blockchain, IoT, and AI. These technologies support real-time halal traceability, accelerate certification processes, and ensure consistent compliance throughout the supply chain. In this context, Indonesia's role should not be limited to that of a market participant but should evolve into a global leader and a model of technology-based halal industry governance. Without an integrated and sustainable digital transformation strategy, Indonesia risks falling behind countries such as

Malaysia and the United Arab Emirates, which have already developed advanced digital halal ecosystems (Suganda et al., 2025).

Challenges of Digitalization in Strengthening the Competitiveness of the Halal Industry

In the digital era, halal trade holds great potential for growth through the effective utilization of digital technology. Digital transformation within the halal industry can enhance efficiency, transparency, and market access for both producers and consumers. However, the implementation of digital transformation in the halal industry faces several challenges that need to be addressed promptly.

Digitalization presents strategic opportunities to expand the reach of the halal market at both national and global levels. Wahyudi, Setiawan and Armina emphasize that the increasing awareness among Muslim consumers of the importance of consuming halal products creates significant potential for business actors to optimize digital platforms in expanding market segments and penetration. In this context, digitalization serves not merely as a supporting tool but as a key catalyst driving the transformation of the halal industry toward a more inclusive, efficient, and adaptive system in response to dynamic market changes. The emergence of digital-based halal marketplaces, Shariah-compliant payment systems, and online halal labeling features has further strengthened the competitiveness of the halal industry in addressing the needs of religiously conscious consumers who also possess a high level of digital literacy. Innovations such as the use of Quick Response (QR) codes for product halal verification, chatbots for customer service, and educational content grounded in Islamic values have become key strategies in strengthening the technology-based halal marketing ecosystem (Saharani, 2025).

On March 14, 2025, the Halal Product Assurance Organizing Agency (*Badan Penyelenggara Jaminan Produk Halal* or BPJPH) set a target of halal certification for 11,935 business actors in West Kalimantan Province, with an allocation of 5,931 business actors under the SEHATI or Free Halal Certification Program. According to BPJPH Deputy for Halal Registration and Certification, Mamat Salamet Burhanudin, the rate of halal certificate ownership in West Kalimantan remains relatively low compared to the total number of active business actors in the region. Out of more than 280,000 business entities, only around 9,168 have obtained halal certification. This condition indicates that business participation in the halal certification process in West Kalimantan still needs to be improved to align with the national policy of mandatory halal certification (Oxtora, 2025).

Based on the latest data obtained through the BPJPH Halal Information System of the Indonesian Ministry of Religious Affairs as of November 5, 2025, at 06:57 a.m. (WIB), the SEHATI program shows relatively high realization rates across all provinces in Kalimantan. In total, the Kalimantan region received a quota of 18,673 halal certifications, with an actual realization of 19,109 certificates, or approximately 102.33% of the target. This achievement reflects the growing enthusiasm of business actors in Kalimantan toward halal certification programs. Specifically, West Kalimantan obtained a quota of 4,185 with a realization of 4,315 certificates (103.11%), South Kalimantan achieved 7,597 out of 7,326 (103.7%), Central Kalimantan achieved 2,616 out of 2,519 (103.85%), and East Kalimantan achieved 4,016 out of 4,008 (99.8%). Meanwhile, North Kalimantan was the only province that did not meet its target, achieving 88.98% (565 out of 635) (Badan Penyelenggara Jaminan Produk Halal, 2025).

These results indicate that the implementation of digital transformation in the halal certification system through BPJPH's online platform has successfully increased the efficiency of halal registration and document verification. Business actors can now access halal certification services more quickly and transparently through an integrated online system, without relying on manual mechanisms as in the past. This change has not only expanded access to halal certification for MSMEs but also enhanced consumer trust in the legality and halal integrity of products available on the market.

However, the high quota achievement in Kalimantan does not always correspond to the proportion of businesses with halal certification. For example, in West Kalimantan Province, out of a total of more than 280,000 businesses, only around 9,168 have Halal Certificates. This means that while the SEHATI program

has demonstrated administrative success in achieving its quota, there remains a significant gap between the number of active businesses and the number of businesses that have formally met halal standards.

This gap can be explained through the concept of the digital divide, which refers to differences in access and utilization of digital technology among MSMEs. For some small businesses, limited digital literacy, internet access, and administrative knowledge are key obstacles to utilizing digital-based halal certification services. This situation demonstrates challenges in digital literacy and has the potential to reduce the competitiveness of local products and hinder MSME access to a wider market, especially amidst increasing consumer awareness of the halal and safety aspects of the products they consume (Ayulestari, 2025). Therefore, collaborative efforts are needed between local governments, BPJPH, and halal support institutions to ensure the inclusiveness of the certification process and improve digital literacy in the halal MSME sector.

Integration of Islamic Business Ethics in the Digital Halal Industry

The implementation of digital based halal certification is not merely a modernization of administrative procedures, but a reflection of the internalization of Islamic business ethics values in contemporary economic practices. Basic principles such as honesty (*ṣidq*), responsibility (*amanah*), and justice (*‘adl*) serve as moral guidelines for halal business actors in navigating the increasingly competitive complexities of the digital market (Yasin & Billah, 2024). These values require that all business activities, from production processes and data management to digital marketing, be conducted transparently and in accordance with Shariah. Therefore, every use of technology, whether in the form of blockchain, e-certification systems, or online marketing applications, must be directed towards supporting business integrity and blessings, not merely economic efficiency.

In the context of the digital halal industry, the principle of *amanah* can be translated into responsible, ethical data management. Any information about a product's halal status displayed on a digital platform serves as a promise of trust to consumers. Data transparency regulated through a blockchain-based system allows the public to trace the origin of raw materials, the production process, and the status of halal certification in real time. In this way, technology serves as a means to uphold the value of *ṣidq* in business practices, as every transaction and halal claim can be objectively verified (Susanto et al., 2025).

Furthermore, the principle of *‘adl* is a crucial element in ensuring that digital transformation does not create new inequalities among business actors. MSMEs in Pontianak, for example, face challenges such as limited capital and digital literacy in utilizing halal certification technology (Subandono et al., 2025). Therefore, the implementation of digitalization must be accompanied by policies that favor small businesses, such as mentoring and training on the use of the SIHALAL system or the SEHATI program (Yuliani, 2023). These steps not only expand access to certification but also uphold the principles of social justice and equitable distribution of the benefits of digital transformation.

Perspective of maqāṣid al-Shariah (the principles of Islamic law), the digitalization of the halal industry can be viewed as an instrument supporting the protection of religion (*ḥifẓ al-din*), life (*ḥifẓ al-nafs*), and property (*ḥifẓ al-mal*) through the creation of a system that guarantees halalness, security, and economic sustainability (Albar et al., 2025). When these values are integrated into a digital system, business activities are oriented not only toward financial profit but also toward achieving barakah (blessings) and *maṣlaḥah* (public benefit). In the local context of Pontianak, halal-certified MSMEs that adopt digital technology can serve as exemplary implementations of Islamic principles in the Industry Revolution 4.0 era, such as being globally competitive without losing their ethical and spiritual identity.

Therefore, the integration of Islamic business ethics in the digital halal industry is not merely a normative ideal, but also a practical necessity that determines the sustainability of the halal ecosystem. The synergy between technology and Islamic values produces a system that is not only efficient, but also fair, trustworthy, and full of blessings. This transformation is proof that digital advancement can go hand in hand with business spirituality, creating harmony between economic benefits and Shariah-based moral

responsibility. In the context of digital transformation, halal product marketing practices are increasingly shifting to digital platforms, including social media, e-commerce, and mobile applications.

CONCLUSION

Digital transformation in the halal industry has opened up significant opportunities for increasing the competitiveness of the Islamic economy at the national and global levels. The application of technologies such as blockchain, the Internet of Things (IoT), and artificial intelligence (AI) is strengthening transparency, efficiency, and accountability in the halal supply chain. Through the digitization of certifications such as SIHALAL (Halal Information System) and SEHATI (Free Halal Certification), MSMEs gain easier access to halal legality and enhance product credibility in the international market. However, the success of this transformation depends on the readiness of human resources, digital literacy, and equitable policy support for all business actors. By addressing these challenges, digital transformation can function not only as a technological tool but also as a strategy for developing an inclusive and equitable Islamic economy.

More than simply technological modernization, the digitalization of the halal industry reflects the actualization of Islamic business ethics in contemporary economic practices. The principles of *sidq* (honesty), *amanah* (responsibility), and *adl* (justice) play a role in ensuring that technological advancements bring blessings (*barakah*) and benefits (*maṣlaḥah*) to the wider community. The integration of digital innovation and Islamic values makes the halal ecosystem not only efficient, but also moral, just, and sustainable. Future research can be directed at measuring the empirical impact of digital transformation on increasing the productivity and halal exports of MSMEs in the region, such as those that have begun to develop in Pontianak, so that the model for implementing Islamic business ethics in the digital economy can serve as a global reference.

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CONFLICT OF INTEREST STATEMENT

The authors agree that this research was conducted in the absence of any self-benefits, commercial or financial conflicts and declare the absence of conflicting interests with the funders.

AUTHORS' CONTRIBUTIONS

Eka Junila Saragih led the study by formulating the research concept, designing the methodology, conducting the investigation, performing formal data analysis, and drafting the original manuscript. Nia Zulinda was primarily involved in data collection, data validation, and the presentation of results through visualization, and contributed to the critical review and revision of the manuscript. Ari Widiati managed project administration and research resources, supported the use of software and analytical tools, and assisted in refining the methodological and analytical components of the study. Vivi Sri Wahyuni provided overall supervision of the research process, was responsible for securing research funding, ensured the rigor and integrity of the study, and made substantial contributions to manuscript review, editing, and final approval. All authors have reviewed and approved the final manuscript and accept responsibility for the content of the work.

DECLARATION OF GENERATIVE AI THE WRITING PROCESS

In the process of preparing this article, the researchers declare that we did not use AI for data collection, data analysis, or the preparation of research results. All data and information used in this study were obtained through a literature review of scientific journals relevant to the research topic. The use of AI in this paper was limited to technical aspects, such as assisting in structuring sentences to be adjusted with the scientific writing system (IMRAD) and to improve the grammar writing.

DATA AVAILABILITY STATEMENT/ SUPPLEMENTARY DATA

The data used in this study come from various scientific literature sources relevant to the research topic. This study uses a library research approach, so that the data was obtained through searching and reviewing books, scientific journals, previous research results, and relevant websites to serve as scientific study materials. All data supporting this research is available from published sources and is publicly accessible.

ETHICS STATEMENT

I testify that our submitted article followed ethical principle.

REFERENCES

- Alamsyah, A., Hakim, N., & Hendayani, R. (2022). Blockchain-Based Traceability System to Support the Indonesian Halal Supply Chain Ecosystem. *Economies*, 10(6). <https://doi.org/10.3390/economies10060134>
- Albar, K., Amiruddin K., & Abdullah, W. (2025). Integrating Maqasid Shariah in Enhancing MSME Business Sustainability in the Digital Economy. *El-Jizya: Jurnal Ekonomi Islam*, 13(1), 57–68. <https://doi.org/10.24090/ej.v13i1.13174>
- Ayulestari, I. (2025). Persepsi Pelaku UMKM Pontianak terhadap Sertifikasi Halal sebagai Daya Saing Usaha. *MI: Jurnal Muamalat Indonesia*, 5(1), 856–873. <https://doi.org/10.26418/jmi.v5i2.98204>
- Bariato, M., Alhanief, M. D., Rizka, F., & Fathurrahman, B. (2024). Analisis Tingkat Pemahaman UMKM terhadap Sertifikasi Halal di Kota Pontianak. *AL-FIQH: Journal of Islamic Studies*, 2(3), 193–203. <https://doi.org/10.59996/al-fiqh.v2i3.672>
- Benedict, & Nawangwulan, W. R. S. (2024). Analysis of the Influence of Halal Labeling on Customer Purchasing Decisions at Restaurants in South Tangerang City. *International Proceeding Global Sustainable Tourism Conference*. <http://dx.doi.org/10.30813/glost.v0i0.6125>
- Badan Penyelenggara Jaminan Produk Halal (2025) *Data Rekapitulasi SEHATI* (<https://bpjph.halal.go.id/data-rekapitulasi-sehati/>).
- Ghalih, M., Chang, C. H., & Safitri, Y. D. (2025). Leveraging Artificial Intelligence and Technology for Enhancing Halal Supply Chain Management. *Jurnal Tekonologi Informasi Dan Pendidikan*, 18(1). <https://doi.org/10.24036/jtip.v18i1.955>
- Judijanto, L., Solihin, D., Nurnaningsih, R., Yusniar, & Gastriani, O. P. (2025). Bibliometric Analysis of Halal Industry Research in the Global Market. *West Science Islamic Studies*, 3(1).

<https://doi.org/10.58812/wsiss.v3i01.1617>

- Muhammad, N. (2025). Digital Transformation in Halal Product Marketing: A Maqasid al-Shariah Approach. *Iqtishodia: Jurnal Ekonomi Syariah*, 10(2). <https://doi.org/10.35897/iqtishodia.v10i2.1908>
- Oxtora, R. (2025, March 14). BPJPH targetkan 11 ribu pelaku usaha di Kalbar dapat sertifikat Halal. *Antara News*. <https://kalbar.antaraneews.com/berita/629941/bpjph-targetkan-11-ribu-pelaku-usaha-di-kalbar-dapat-sertifikat-halal>
- Qizwini, J., & Purnama, D. G. (2025). Inovasi Teknologi dan Transformasi Industri Halal di Indonesia: Tantangan dan Peluang. *Perbanas Journal of Islamic Economics and Business*, 5(1), 1–14. <https://doi.org/10.56174/pjieb.v5i1.282>
- Rasyidah, A. N., Azizi, A. Q., & Kholis, N. (2025). Digital Ecosystems in Supporting Global Trade of Halal Products: Innovation and Challenges. *ADPEBI International Journal of Business and Social Science*, 5(2). <https://doi.org/10.54099/aijbs.v5i2.1360>
- Saharani, S. (2025). Transformasi Strategi Pemasaran Halal dalam Era Digitalisasi. *Finotec: Journal of Islamic Finance and Economics*, 2(2), 198–213. <https://onlinejournal.penacceleration.com/index.php/fet/article/view/110>
- Sari, Y. R. (2023). SEHATI's Contribution (Free Halal Certification) For Medium and Small Enterprises (MSE) in Indonesia. *Journal Of Islamic Economics*, 3(2). <https://doi.org/10.21154/joie.v3i2.6343>
- Shofiyuddin, M., Nurhayati, S., Marlinah, E., & Zahro. (2024). The Influence of Digital Transformation Based on Religious Ethics on MSME Performance in the Industry 4.0 Era. *International Journal of Islamic Business and Economics (IJIBEC)*, 8(2). <https://doi.org/10.28918/ijibec.v8i2.8853>
- Subandono, A., Hartono, S., & Haq, M. A. I. (2025). Optimalisasi Digital Marketing dan Sertifikasi Halal pada Produk UMKM. *Jurnal Studi Ekonomi Syariah*, 9(1). <https://doi.org/10.30762/istithmar.v9i1.2161>
- Suganda, A. D., Amalia, E., Maksum, M., & Rohim, N. (2025). Digital Transformation in Indonesian Halal Industrial Zones. *Journal of Islamic Economics and Finance Studies (JIEFeS)*, 6(1). <https://doi.org/10.47700/jiefes.v6i1.10834>
- Sunmola, F., Baryannis, G., Tan, A., Co, K., & Papadakis, E. (2025). Holistic Framework for Blockchain-Based Halal Compliance in Supply Chains Enabled by Artificial Intelligence. *Systems*, 13(1). <https://doi.org/10.3390/systems13010021>
- Susanto, D., Sapa, N. bin, & Muthiadin, C. (2025). Teknologi dalam Penjamin Produk Halal. *SEBI (Jurnal Studi Ekonomi Dan Bisnis Islam)*, 7(2). <https://doi.org/10.37567/sebi.v7i2.3916>
- Yasin, A., & Billah, A. (2024). Blockchain-Based Digital Transaction Security System: Perspective of Imam al-Shāṭ ibi's Maqāṣ id al-Sharī 'ah Concept. *Al-Muamalat: Jurnal Ekonomi Syariah*, 11(2), 176–198. <https://doi.org/10.15575/am.v11i2.34379>
- Yuliani, I. (2023). Implementasi Program Sertifikasi Halal Gratis (Sehati) Dalam Mendorong Minat Pelaku UMKM Indonesia Mengajukan Sertifikasi Halal. *Journal Of Management and Sharia Business*, 1(2). <https://doi.org/10.30983/krigan.v1i2.7630>



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