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Strengthening the Competitiveness of Culinary MSMEs through the Digitalization of Halal Certification

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Abstract
The contribution of digitalized halal certification to culinary micro, small, and medium-sized enterprises (MSMEs) competitiveness remains insufficiently understood, particularly regarding the institutional and organizational conditions shaping its implementation. This study examines the relationship between digitalization of halal certification and the competitiveness of culinary MSMEs in Demak Regency, Indonesia. Using a qualitative descriptive approach, data were collected through semi-structured interviews, observations, and document analysis. The data were analyzed through data condensation, data display, and conclusion drawing. The findings indicate that halal certification provides formal assurance of compliance with halal requirements, while digitalization facilitates access to certification procedures and relevant information. However, limited digital literacy, inadequate institutional assistance, and insufficient awareness of certification's strategic value remain key implementation challenges. The findings further suggest that potential contribution of digitalized halal certification to competitiveness depends on the interaction of digital accessibility, institutional support, and effective halal governance. This study contributes to the literature by framing digitalization as an enabling mechanism rather than an independent determinant of competitiveness. The findings highlight the need for targeted digital literacy programs, accessible certification assistance, and stronger stakeholder coordination. Further research is needed to determine whether these mechanisms lead to measurable improvements in market access and business performance.

Artik Kontribusi digitalisasi sertifikasi halal terhadap daya saing usaha mikro, kecil, dan menengah (UMKM) kuliner masih belum dipahami secara komprehensif, terutama terkait

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kondisi kelembagaan dan organisasional yang memengaruhi implementasinya. Penelitian ini menganalisis keterkaitan antara digitalisasi sertifikasi halal dan daya saing UMKM kuliner di Kabupaten Demak, Indonesia. Penelitian menggunakan pendekatan deskriptif kualitatif dengan pengumpulan data melalui wawancara semi-terstruktur, observasi, dan analisis dokumen. Data dianalisis melalui tahapan kondensasi data, penyajian data, dan penarikan kesimpulan. Hasil penelitian menunjukkan bahwa sertifikasi halal memberikan jaminan formal atas pemenuhan persyaratan halal, sedangkan digitalisasi mempermudah akses terhadap prosedur sertifikasi dan informasi terkait. Namun, keterbatasan literasi digital, belum memadainya pendampingan kelembagaan, dan kurangnya pemahaman mengenai nilai strategis sertifikasi masih menjadi kendala utama. Temuan ini mengindikasikan bahwa potensi kontribusi digitalisasi sertifikasi halal terhadap daya saing bergantung pada interaksi antara aksesibilitas digital, dukungan kelembagaan, dan tata kelola halal yang efektif. Penelitian ini berkontribusi pada literatur dengan memosisikan digitalisasi sebagai mekanisme pendukung, bukan sebagai determinan tunggal daya saing. Temuan ini menegaskan pentingnya program literasi digital, pendampingan sertifikasi yang mudah diakses, dan penguatan koordinasi antarpemangku kepentingan. Penelitian lanjutan diperlukan untuk menguji dampaknya terhadap akses pasar dan kinerja usaha secara terukur.

Keywords: *Halal Certification; Digitalization; Culinary MSMEs; Business Competitiveness; Halal Industry*

Introduction

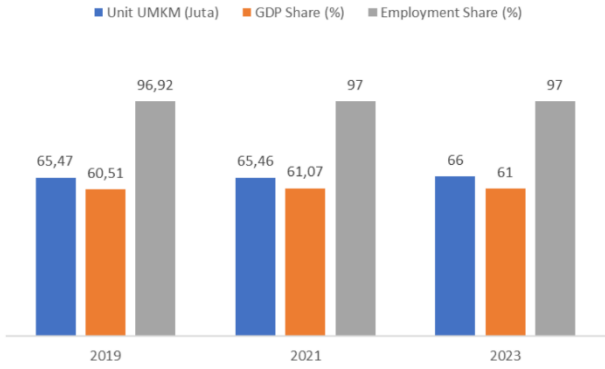
Micro, Small, and Medium Enterprises (MSMEs) are a strategic pillar of Indonesia's economy, contributing significantly to employment generation, income creation, and regional economic development.[1] Among various sectors, culinary MSMEs represent one of the fastest-growing industries due to increasing consumer demand and the expansion of domestic tourism.[2] However, the rapid growth of culinary businesses has not been accompanied by equivalent improvements in competitiveness, particularly regarding product quality assurance, market access, and compliance with halal standards.[3] These challenges have become increasingly important as Muslim consumers place

[1] Novita Aprilia, Waspodo Tjipto Subroto, and Norida Canda Sakti, "The Role of Small and Medium Enterprises (SMEs) in Supporting the People's Economy in Indonesia," *International Journal of Research and Scientific Innovation* XI, no. XII (2025): 368–376.

[2] Asep Maosul et al., "Gastrodiplomacy as a Cultural Soft Power Strategy: Exploring Indonesian MSME Entrepreneurs' Perspectives and Vocational Skill Development Needs," *Journal Of Technical Education And Training* 18, no. 1 (June 2026).

[3] Boyke Rudy Purnomo, Retty Ikawati, and Yuny Erwanto, "Halal Certification Boosts Ratings, Not Sales: Signalling Theory and MSME Modernization in Indonesia's Digital Food Ecosystem," *British Food Journal* 128, no. 7 (June 2026): 2902–2921.

greater emphasis on halal assurance as an integral component of product quality, safety, and trust.[4]



Graph 1.
Indicators of the Role of MSMEs in the Economy

Graph 1 shows that MSMEs have consistently served as the backbone of Indonesia's economy, with the number of business units increasing from 65.47 million in 2019 to 66 million in 2023. During the same period, MSMEs contributed approximately 61% of the national GDP and generated around 97% of total employment. These figures underscore the strategic role of MSMEs in sustaining inclusive economic growth. Therefore, enhancing MSME competitiveness through the digitalization of halal certification has become increasingly important to improve market access and long-term business sustainability.

In response to this growing demand, the Indonesian government has strengthened the national halal ecosystem through mandatory halal certification policies.[5] Beyond religious compliance,[6] halal certification has evolved into a strategic business asset that enhances consumer confidence, strengthens brand reputation, facilitates market expansion, and improves business competitiveness.[7] Nevertheless, the implementation of halal certification among

[4] Laila A.H.F. Dashti et al., "Enhancing Halal Food Traceability: A Model for Rebuilding Trust and Integrity in Muslim Countries," *Journal of Islamic Marketing* 15, no. 12 (December 2024): 3382–3408.

[5] Marnita Marnita, "Directions for the Development of the Halal Ecosystem in Public Policy: A Study of Islamic Law and Legislation in Indonesia," *Al-Ishlah: Jurnal Ilmiah Hukum* 27, no. 2 (July 2024): 156–177.

[6] Wiwin Siti Aminah Rohmawati and Kamilia Hamidah, "Religious Tolerance Narratives on Social Media: Network Analysis of Indonesian Civil Society Organizations on Instagram (2019–2023)," *Islamic Review: Jurnal Riset dan Kajian Keislaman* 14, no. 1 (April 2025): 1–26.

[7] Syaparuddin Razak, Syahabuddin Syahabuddin, and Jumriani Raking, "Assessing Social Impact in Halal Business Practices: A Maslahah-Oriented Framework for Sustainable Development," *Journal of Islamic Marketing* 17, no. 3 (March 2026): 898–922.

culinary MSMEs remains limited. Many enterprises continue to experience administrative complexity, inadequate digital literacy,[8] limited institutional assistance, financial constraints, and insufficient understanding of the long-term business benefits of certification. These barriers have reduced the effectiveness of government initiatives and limited MSMEs' ability to capitalize on opportunities within the rapidly expanding halal market.

The digital transformation of halal certification presents a promising solution to overcome these challenges.[9] Digital platforms can simplify registration procedures, improve transparency, reduce processing time, facilitate document management, and strengthen communication among MSMEs, certification authorities, and supporting institutions.[10] Furthermore, digitalization enhances accessibility and efficiency, enabling small businesses to comply with halal regulations while improving their competitiveness in increasingly digital and integrated markets.[11] Despite these potential advantages, the adoption of digital halal certification remains uneven, particularly among culinary MSMEs operating in regional areas.

Demak Regency provides an appropriate context for examining this issue. As one of Indonesia's prominent Islamic heritage destinations, Demak possesses substantial potential for developing a halal-based culinary economy. The region attracts large numbers of religious tourists while maintaining a predominantly Muslim population, creating sustained demand for halal-certified food products. However, the relatively low adoption of halal certification among culinary MSMEs indicates a considerable gap between the region's economic potential and the effective implementation of halal certification policies, particularly through digital platforms.

Previous studies have consistently demonstrated that halal certification positively influences consumer trust, purchase intention, brand image, and business performance.[12] More recent studies have also explored digital

[8] Rahwan Rahwan et al., "Da'wah Strategy through Islamic Education in the Digital Era," *Islamic Review: Jurnal Riset dan Kajian Keislaman* 15, no. 1 (April 2026): 131–150.

[9] Alvi Nuur Rasyidah, Abdillah Qodri Azizi, and Nur Kholis, "Digital Ecosystems in Supporting Global Trade of Halal Products: Innovation and Challenges," *ADPEBI International Journal of Business and Social Science* 5, no. 2 (June 2025): 1–11.

[10] Muhammad Nusran et al., "Halal Certification in The Digital Age: Leveraging Online Platforms for Enhanced Transparency and Accessibility," *Jurnal Ekonomi, Akuntansi dan manajemen Indonesia* 2, no. 01 (December 2023): 105–115.

[11] Ahmad Ridho, "Integrating Artificial Intelligence and Blockchain to Improve the Accuracy of Halal Certification," *Journal of Halal Review* 1, no. 1 (January 2025): 12–22.

[12] Afzaal Ali et al., "Antecedents of Consumers' Halal Brand Purchase Intention: An Integrated Approach," *Management Decision* 56, no. 4 (March 2018): 715–735.

transformation within MSMEs, highlighting its contribution to operational efficiency and business resilience.[13] However, these streams of research have largely developed independently. Existing studies predominantly examine halal certification from the perspectives of consumer behavior or regulatory compliance, whereas digitalization studies mainly focus on digital marketing, e-commerce adoption, and business performance. Limited attention has been devoted to understanding how the digitalization of halal certification can serve as a strategic mechanism for strengthening MSME competitiveness, particularly within regional culinary industries. Moreover, empirical evidence integrating technological adoption, institutional support, and halal governance remains scarce.

This study addresses these gaps by investigating how the digitalization of halal certification contributes to strengthening the competitiveness of culinary MSMEs in Demak Regency. Unlike previous studies that primarily assess the impact of halal certification on consumer behavior or purchasing decisions, this research integrates digital transformation, halal governance, institutional support, and MSME competitiveness within a unified analytical framework. The study identifies the opportunities and challenges associated with implementing digital halal certification while formulating strategic recommendations for accelerating digital adoption and enhancing the regional halal ecosystem.

Although previous studies have examined halal certification, digital transformation, and MSME competitiveness, these relationships have largely been investigated from separate analytical perspectives. Dawam et al. for example, examined the determinants of micro and small enterprises' interest in self-declare halal certification and highlighted the importance of government policy and support in facilitating participation.[14] Yuanitasari et al. subsequently analyzed the implementation of digital halal certification in Indonesia, identifying a gap between the intended benefits of digital services and the practical challenges faced by micro and small enterprises.[15] In a broader business context, Meier et al. conceptualized SME competitiveness through

[13] Hamed Hokmabadi, Seyed M. H. S. Rezvani, and Celso Augusto de Matos, "Business Resilience for Small and Medium Enterprises and Startups by Digital Transformation and the Role of Marketing Capabilities—A Systematic Review," *Systems* 12, no. 6 (June 2024): 220.

[14] Khaerud Dawam et al., "Determinants of Micro and Small Enterprise's Interest to Participate in Self-Declare Halal Certification," *Journal of Digital Marketing and Halal Industry* 5, no. 1 (July 2023): 1–22.

[15] Deviana Yuanitasari, Agus Sardjono, and Heru Susetyo, "Digitalization of Halal Certification for Smes: Between Hope and Reality," *Jurnal Bina Mulia Hukum* 9, no. 2 (March 2025): 179–196.

digital transformation as dependent on the alignment of technological, organizational, and cultural conditions, suggesting that digital adoption alone does not guarantee competitive advantage.[16] Complementing these perspectives, Azizah et al. using data from 925 MSMEs across Indonesia, found a positive relationship between halal certification and operational and financial performance.[17] Nevertheless, these studies do not fully explain how digital certification, institutional support, and halal governance interact to shape the competitiveness of culinary MSMEs in specific regional contexts. To address this gap, this study examines their relationship with perceived competitiveness among culinary MSMEs in Demak Regency, Indonesia. Its contribution lies in exploring how digital access, institutional facilitation, and compliance practices may support product credibility, consumer confidence, and potential market opportunities, without assuming direct causal effects on sales or profitability.

This research contributes to the literature in two ways. Theoretically, it extends the discourse on halal certification by positioning digitalization as a strategic capability that enhances MSME competitiveness through improved governance, efficiency, and market accessibility. Practically, the findings provide evidence-based recommendations for policymakers, halal certification authorities, business support institutions, and MSME practitioners to strengthen digital halal certification systems, accelerate certification adoption, and foster a more competitive and sustainable halal economy at the regional level.

Method

Research Design

This study employed a qualitative descriptive approach to explore how the digitalization of halal certification contributes to strengthening the competitiveness of culinary Micro, Small, and Medium Enterprises (MSMEs) in Demak Regency, Indonesia. A qualitative design was selected because it enables an in-depth understanding of participants' experiences, perceptions, and institutional practices related to the implementation of digital halal certification within its real-world context. The study focused on identifying the

[16] Andrea Meier, Robert Eller, and Mike Peters, "Creating Competitiveness in Incumbent Small- and Medium-Sized Enterprises: A Revised Perspective on Digital Transformation," *Journal of Business Research* 186 (January 2025): 115028.

[17] Siti Nur Azizah et al., "Linking Halal Certificate and Micro, Small and Medium Enterprises (MSMES) Performance in Indonesia," *International Journal of Islamic and Middle Eastern Finance and Management* 18, no. 6 (October 2025): 1271–1290.

opportunities, challenges, and strategic roles of digital halal certification in improving business competitiveness, market access, and consumer trust.

The research was conducted in Demak Regency, Central Java, Indonesia, an area recognized for its growing culinary MSME sector and strong potential for halal industry development. Informants were selected using purposive sampling[18] to ensure they possessed relevant knowledge and experience regarding halal certification. The participants consisted of culinary MSME owners, representatives of the Ministry of Religious Affairs (Kemenag) of Demak Regency, halal certification facilitators, and consumers. This diversity of informants enabled comprehensive perspectives on the implementation and digitalization of halal certification.

Data were collected through three complementary techniques:

1. Semi-structured interviews with MSME owners, government officials, halal facilitators, and consumers to explore their experiences and perceptions regarding digital halal certification.
2. Non-participant observation of MSME production processes, digital certification practices, and business operations.
3. Document analysis of halal certificates, business licenses, government regulations, policy documents, and other relevant records supporting the implementation of halal certification.

The combination of these methods facilitated data triangulation and enhanced the comprehensiveness of the findings. The credibility of the findings was ensured through source triangulation, method triangulation, and member checking, allowing the researcher to verify the consistency and accuracy of information obtained from different participants and data sources.[19]

Data Analysis

Data were analyzed using the interactive model proposed by Miles et al., consisting of data condensation, data display, and conclusion drawing/verification.[20] Interview transcripts, observation notes, and documentary evidence were coded and organized into thematic categories related to digital halal certification, institutional support, implementation challenges, and MSME competitiveness. The iterative analysis enabled the

[18] John W. Creswell and J. David Creswell, *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (London: SAGE Publications, 2017).

[19] John W. Creswell, *Research Design Pendekatan Metode Kualitatif, Kuantitatif, Dan Campuran* (Yogyakarta: Pustaka Pelajar, 2019).

[20] Matthew B. Miles, A. Michael Huberman, and Johnny Saldana, *Qualitative Data Analysis: A Methods Sourcebook* (London: SAGE Publications, 2018).

identification of recurring patterns and the development of strategic recommendations for strengthening the digital halal certification ecosystem.

Result and Discussion

Digitalization of Halal Certification as a Driver of Culinary MSME Competitiveness

The findings indicate that halal certification has evolved beyond a regulatory requirement into a strategic business asset that enhances the competitiveness of culinary MSMEs. Participants consistently emphasized that halal certification increases consumer trust, strengthens product credibility, and expands market opportunities. More importantly, the ongoing digitalization of halal certification has simplified administrative procedures, accelerated the certification process, and improved accessibility for MSMEs seeking halal compliance.[21] One MSME owner stated:

> *"Expanding market segmentation is a primary objective of culinary Micro, Small, and Medium Enterprises (MSMEs) in Demak Regency. Effective marketing management, through both digital platforms and conventional marketing strategies, enables culinary MSMEs to maximize their market reach across local, national, and global markets. Broader market access increases consumer awareness and purchasing interest, thereby contributing to higher sales performance and business revenue. Consequently, integrating digital marketing with halal-certified products provides culinary MSMEs with greater opportunities to strengthen their competitive position and achieve sustainable business growth."* (Evy Setyowati, Culinary MSME Consumer, personal interview, August 25, 2023).

The findings also reveal that halal certification plays a decisive role in shaping consumer purchasing decisions. Consumers perceive halal-certified culinary products as safer, more reliable, and fully compliant with Islamic principles, whereas products without halal certification continue to generate uncertainty regarding their ingredients and production processes.[22] The interview evidence needs to be interpreted by distinguishing the market-related value of halal certification from the operational value of its digitalization. The quotation concerning market segmentation highlights the perceived importance of combining product credibility with marketing activities, but it does not

[21] Lukman Santoso and Abdul Rachman, "Digitalising Halal Certification: The Dynamic of Regulations and Policies Concerning Halal Certification in Indonesia," *Jurisdictie: Jurnal Hukum dan Syariah* 14, no. 2 (January 2024): 265–293.

[22] Veronica Procacci et al., "Sustainability Certifications as Enablers of Intellectual Capital and Digital Transformation in SMEs," *VINE Journal of Information and Knowledge Management Systems* 56, no. 2 (February 2026): 616–636.

independently establish that digital halal certification has increased sales or revenue.

Halal certification may provide a recognized signal of compliance that supports product legitimacy, whereas digital marketing and e-commerce provide channels through which businesses communicate their products and reach potential customers. The distinction is important because digital certification does not automatically generate market expansion. Rather, its competitive value depends on whether certification-related information is accessible, credible, and effectively incorporated into broader business and marketing practices. This interpretation is consistent with Azizah et al. who found a positive relationship between halal certification and MSME operational and financial performance, [23] and Meier et al. who emphasized that digital transformation contributes to competitiveness when technological resources are aligned with organizational capabilities and business strategies.[24] As expressed by one consumer:

> *"Consumers assume that culinary products without halal certification remain questionable for consumption because they may contain ingredients or substances prohibited under Islamic law."* (Evy Setyowati, Culinary MSME Consumer, personal interview, August 25, 2023).

This perception demonstrates that halal certification functions not only as a legal instrument but also as a mechanism for reducing information asymmetry between producers and consumers. The availability of halal certification through digital platforms further strengthens transparency by enabling consumers to verify product legitimacy more easily, thereby increasing trust and purchase intention.[25] These findings are consistent with previous studies reporting that halal certification positively influences consumer confidence, brand reputation, and purchasing decisions.[26]

From the producers' perspective, respondents emphasized that halal certification requires comprehensive compliance with the Halal Assurance

[23] Siti Nur Azizah et al., "Linking Halal Certificate and Micro, Small and Medium Enterprises (MSMES) Performance in Indonesia,"

[24] Meier, Eller, and Peters, "Creating Competitiveness in Incumbent Small- and Medium-Sized Enterprises: A Revised Perspective on Digital Transformation."

[25] Xiaoyan Teng, Zhong Wu, and Feng Yang, "Impact of the Digital Transformation of Small- and Medium-Sized Listed Companies on Performance: Based on a Cost-Benefit Analysis Framework," ed. Abderrahim Wakif, *Journal of Mathematics* 2022, no. 1 (January 2022).

[26] Mohamad Isa Abd Jalil et al., "Consumer Insights on Halal Certification: Awareness, Perception, and Visibility as Key Determinants of Purchase Behaviour," *Journal of Islamic Monetary Economics and Finance* 12, no. 1 (February 2026): 195–228.

System rather than merely obtaining a certificate.[27] One culinary MSME owner explained:

> *"A culinary MSME product can only be categorized as halal if it fulfills the requirements of the Halal Assurance System, including halal policy, approval from the halal management team, employee training and education, raw material verification, compliant production facilities, documented procedures for critical activities, product traceability, handling of non-conforming products, internal halal audits, and management review."* (Windha Elisa, Culinary MSME Owner, personal interview, August 24, 2023).

This finding indicates that digitalization should not be limited to the online submission of certification applications but should encompass the digital management of halal assurance throughout the production process. Integrating digital documentation, traceability systems, and internal monitoring enhances operational efficiency while ensuring continuous compliance with halal standards.[28]

Windha Elisa's account highlights that halal assurance is an organizational process rather than a one-time administrative achievement. The elements she identified, including raw-material verification, employee training, documented procedures, traceability, internal audits, and management review represent compliance-related practices that must be maintained throughout the production process. This evidence primarily demonstrates the importance of halal governance; it does not, by itself, demonstrate that these activities have already been digitized by the participating MSMEs. Digitalization becomes relevant when digital tools are used to organize certification documents, maintain accessible records, facilitate information exchange, and support the monitoring of compliance-related activities. Sadiyah and Erawati examined halal traceability and self-declared certification in relation to Indonesian MSME performance,[29] while Yuanitasari et al. highlighted the practical challenges involved in implementing digital halal certification for Indonesian micro and

[27] Puji Akhiroh et al., "Synergizing Halal Compliance with Balanced Scorecard Approach: Implications for Supply Chain Performance in Indonesian Fried Chicken MSMEs," *Sustainability* 17, no. 21 (November 2025): 9814.

[28] Arij Lahmar and Reema Al Qaruty, "Mitigating Risks in the Halal Supply Chain: A Bibliometric Review of the Role of Technologies," *Journal of Islamic Marketing* (April 2026): 1–26.

[29] Siti Sadiyah and Emi Erawati, "Effectiveness of Halal Traceability and Self-Declared Certification on Indonesian MSMEs Performance," *Indonesian Journal of Islamic Economic Law* 1, no. 2 (June 2024): 72–90.

small enterprises.[30] Taken together, these studies suggest that the value of digitalization lies not merely in online application submission but in its potential to support the organizational processes required for credible and consistent halal assurance. Whether such improvements subsequently generate competitive advantages depends on the actual adoption and use of digital systems by the businesses concerned. Such integration strengthens organizational capability and creates sustainable competitive advantages by improving product quality, transparency, and consumer confidence.[31]

Overall, the findings demonstrate that digital halal certification contributes to MSME competitiveness through two complementary mechanisms. First, it improves internal business efficiency by simplifying certification procedures and strengthening halal governance. Second, it enhances external competitiveness by increasing consumer trust, strengthening product differentiation, and expanding market access. These findings support the digital transformation perspective, which argues that the adoption of digital technologies enables MSMEs to improve organizational performance and competitiveness.[32] Accordingly, digital halal certification should be regarded not merely as a regulatory compliance mechanism but as a strategic capability that integrates digital transformation with halal governance to support the sustainable competitiveness of culinary MSMEs.[33]

Consumer Trust and Market Expansion through Digital Halal Certification

This study found that halal certification is closely related to consumer purchasing decisions. Respondents perceived halal-certified culinary products as more trustworthy, safer, and of higher quality than uncertified products. The availability of halal certification information through digital platforms further strengthened consumer confidence by providing easier access to product verification and certification status.[34] A consumer explained:

> *"I always prefer halal-certified products because they provide certainty regarding product safety and religious compliance. Digital information also makes verification easier."*

[30] Yuanitasari, Sardjono, and Susetyo, "Digitalization of Halal Certification for Smes: Between Hope and Reality."

[31] Anita Rahmawaty and Eni Kusrini, *Labelisasi Halal Produk UMKM Kuliner* (Kudus: CV Kiara Science, 2026).

[32] Muhammad Syarofi and Nur Syam, "Digital Transformation in Halal Certification: Opportunities for SMEs in Indonesia," *Klabat Journal of Management* 6, no. 1 (February 2025): 28.

[33] Anita Rahmawaty and Eni Kusrini, *Labelisasi Halal Produk UMKM Kuliner*.

[34] Sanita Dhakirah and Nurul Hidayatinnisa, "Halal Branding, Consumer Trust, and Digital Innovation in the Global Halal Economy," in *Integrating Halal Principles Into Modern Supply Chain Strategies* (IGI Global Scientific Publishing, 2026), 245–270.

(Dwi, Consumer of Culinary MSME Products in Demak Regency, personal interview, August 2023).

These findings demonstrate that digitalization enhances not only certification efficiency but also information transparency throughout the purchasing process.[35] Consumers increasingly rely on accessible digital information when evaluating product credibility, making digital halal certification an important component of customer experience.[36] This result is consistent with studies showing that halal certification positively influences consumer trust, purchase intention, and brand reputation.[37] Consequently, integrating halal certification into digital platforms creates additional value by strengthening consumer confidence and facilitating broader market access.[38]

Dwi's statement provides evidence of a consumer's preference for halal-certified products and the perceived convenience of accessing certification-related information digitally. Analytically, these are two distinct considerations. The preference for certified products relates to the assurance conveyed by halal certification, whereas the perceived convenience of digital information relates to the accessibility of that assurance. The quotation therefore supports the interpretation that digital information may reduce the effort required to verify a product's certification status, but it does not establish that digitalization itself increases purchase intention or actual purchasing behavior. This distinction is consistent with the broader finding of Azizah et al. that halal certification is positively associated with MSME operational and financial performance, [39] while the relationship between digital transformation and competitiveness depends on organizational and strategic conditions.[40] In the present study, consumer trust should consequently be interpreted as a potential mechanism

[35] Anita Rahmawaty and Ita Rakhmawati, "Repurchase Intention of Halal Cosmetic Product Among Muslim Consumers: The Roles of Islamic Branding, Halal Awareness, and Trust," *IQTISHADIA* 15, no. 1 (July 2022): 1.

[36] Muhammad Nazir, "Technology and Digital Transaction in Halal Retailing," in *Emerging Technology and Crisis Management in The Halal Industry* (Singapore: Springer Nature Singapore, 2024), 123–137.

[37] Jusuf Zeqiri et al., "Religious Affiliation, Halal Labeling and Food Purchase Intention: Evidence from a Desecularizing Society," *Journal of Islamic Marketing* (June 2026): 1–28.

[38] Novalini Jailani et al., "MSMEs Market Expansion Strategy: Synergy Of Halal Certification And Digital Marketing," *Tadayun: Jurnal Hukum Ekonomi Syariah* 5, no. 2 (December 2024): 163–184.

[39] Siti Nur Azizah et al., "Linking Halal Certificate and Micro, Small and Medium Enterprises (MSMES) Performance in Indonesia,"

[40] Meier, Eller, and Peters, "Creating Competitiveness in Incumbent Small- and Medium-Sized Enterprises: A Revised Perspective on Digital Transformation."

connecting credible halal assurance with market acceptance, while the specific contribution of digitalization lies in facilitating access to relevant information.

The findings suggest that halal certification enhances perceived product credibility and may support market differentiation. However, interview evidence reflects consumer perceptions and anticipated market opportunities rather than measurable improvements in sales or market share. Digitalization primarily facilitates access to certification information and the visibility and verifiability of halal credentials. Whether these benefits translate into market access depends on consumer awareness and MSMEs' marketing practices. While consistent with Azizah et al.'s findings on halal certification and MSME performance, [41] this study identifies a plausible pathway from digital information accessibility to perceived credibility and potential market opportunities, rather than establishing a causal effect on competitiveness.

Institutional Support and Challenges in Implementing Digital Halal Certification

Although digitalization has simplified halal certification procedures, several challenges continue to limit its implementation among culinary MSMEs. The interviews revealed four major barriers: limited digital literacy,[42] insufficient understanding of certification procedures, inadequate institutional assistance, and financial constraints, particularly among micro enterprises. These challenges reduce the effectiveness of digital certification initiatives despite supportive government policies.[43]

These barriers may reinforce one another, as limited digital literacy and procedural knowledge increase reliance on external assistance, while financial constraints restrict resources for training and compliance. Yuanitasari et al. examined the implementation of digital halal certification for Indonesian micro and small enterprises and highlighted the gap between the intended benefits of digital services and the practical requirements faced by businesses.[44] Similarly, Meier et al. argued that SME competitiveness through digital transformation depends on the alignment of technological, organizational, and cultural

[41] Siti Nur Azizah et al., "Linking Halal Certificate and Micro, Small and Medium Enterprises (MSMES) Performance in Indonesia,"

[42] Amik Nadziroh, Nirra Fatmah, and Ari Susetiyo, "Challenges in Implementing Character Education through Scouting Extracurricular Activities in Madrasah Ibtidaiyah," *Islamic Review: Jurnal Riset dan Kajian Keislaman* 15, no. 1 (April 2026): 101–114.

[43] Sharon S. Dawes and Theresa A. Pardo, "Building Collaborative Digital Government Systems," 2002, 259–273.

[44] Yuanitasari, Sardjono, and Susetyo, "Digitalization of Halal Certification for Smes: Between Hope and Reality."

conditions.[45] These perspectives help explain why digital certification should be evaluated not only in terms of platform availability but also in terms of the capabilities and institutional arrangements required to use it effectively. In the context of the present study, institutional assistance is therefore analytically important because it may help translate formal digital access into the practical capacity to complete certification procedures and maintain halal compliance.

> *"Halal culinary products refer to food and beverages that are permissible (halal) for consumption under Islamic law and meet established standards of safety, hygiene, and quality, thereby providing benefits to consumers. A food product is considered non-halal if it contains or is contaminated by najis (ritually impure substances), including blood or foods exposed to impurities (al-mutanajjis). In addition, foods classified as al-khabāʾith (filthy or repulsive substances), such as cockroaches or maggots; al-ḍarar (harmful substances), including toxic chemicals and formaldehyde; al-iskār (intoxicating substances), such as alcoholic beverages and narcotics; al-muftarisah (predatory animals), such as wolves and eagles; and al-barmaʾiyyah (amphibious animals), including frogs and caecilians, are prohibited for Muslim consumption. Therefore, halal certification ensures that culinary products comply with Islamic dietary principles throughout the entire production process, thereby safeguarding consumer health, religious obligations, and confidence in halal products."* (Dr. KH. Arwani Syaerozi, Lc., M.A., Member of the Central Fatwa Commission MUI, personal interview, September 2, 2023).

At the same time, respondents emphasized the importance of collaboration among BPJPH, the Ministry of Religious Affairs, local governments, universities, and halal facilitators in providing technical assistance and digital training for MSMEs. Such institutional support is considered essential for accelerating certification adoption and improving business competitiveness. The Indonesian government has actively promoted halal certification for culinary products through collaboration between the Halal Product Assurance Organizing Agency (BPJPH) and the Indonesian Ulema Council (MUI). This initiative represents a concrete implementation of Law No. 33 of 2014 on Halal Product Assurance, as subsequently amended by Law No. 11 of 2020 on Job Creation, reflecting the government's commitment to protecting Muslim consumers by ensuring that products circulating in the market comply with halal standards.

The findings suggest that institutional support can build MSMEs' capacity to navigate digital certification through training, procedural guidance, and documentation assistance. However, program availability does not necessarily

[45] Meier, Eller, and Peters, "Creating Competitiveness in Incumbent Small- and Medium-Sized Enterprises: A Revised Perspective on Digital Transformation."

indicate effectiveness. Yuanitasari et al. underscore the practical challenges of implementing digital halal certification for micro and small enterprises,[46] while Meier et al. emphasize the importance of aligning digital resources with organizational capabilities.[47] Together, these perspectives support an interpretation in which institutional assistance can enable digital adoption, but its contribution to competitiveness depends on whether the assistance strengthens businesses' actual ability to manage certification, maintain compliance, and use credible halal information in their market activities. The findings therefore position institutional support as a condition that may connect digital access with effective halal governance, rather than as direct evidence of improved business performance.

Perspective of *Maqāṣid al-Sharīʿah*,[48] halal culinary products should fulfill the fundamental objectives of Islamic law, namely the protection of religion (*ḥifẓ al-dīn*), life (*ḥifẓ al-nafs*), intellect (*ḥifẓ al-'aql*), wealth (*ḥifẓ al-māl*), and lineage (*ḥifẓ al-nasl*). Accordingly, halal certification is not merely a regulatory obligation but also an essential manifestation of Islamic legal principles. It aims to ensure that culinary products are genuinely halal, thereby safeguarding Muslim consumers from consuming or using prohibited (*haram*) substances while promoting ethical, safe, and Sharia-compliant consumption practices.

The perspective of Maqāṣid al-Sharīʿah provides a normative explanation for why reliable halal assurance matters, particularly in protecting religious observance and consumers' interests. Nevertheless, the normative importance of halal certification should be distinguished from the empirical question of whether digitalization improves MSME competitiveness. In this study, Maqāṣid al-Sharīʿah helps explain the ethical and social purpose of halal assurance, whereas the interview findings on digital access, institutional assistance, and business practices help explain the conditions under which certification-related processes may be managed effectively. Integrating these perspectives prevents the study from treating the religious legitimacy of certification as sufficient evidence of economic benefits. Instead, it connects the normative objectives of halal assurance with the practical requirements of governance, technological accessibility, and responsible business development.

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[46] Yuanitasari, Sardjono, and Susetyo, "Digitalization of Halal Certification for Smes: Between Hope and Reality."

[47] Meier, Eller, and Peters, "Creating Competitiveness in Incumbent Small- and Medium-Sized Enterprises: A Revised Perspective on Digital Transformation."

[48] Anita Rahmawaty et al., "Is Gojek Driveralready Prosperous By Maqasid Syariah?," *At-tijaroh: Jurnal Ilmu Manajemen dan Bisnis Islam* 7, no. 1 (2021).

These findings highlight that digital transformation alone is insufficient without adequate institutional capacity and stakeholder collaboration. This supports the digital ecosystem perspective, which argues that successful digital transformation depends on technological readiness, institutional support, and human capabilities operating simultaneously.[49] Therefore, strengthening digital infrastructure should be accompanied by continuous capacity building, mentoring programs, and integrated policy support.

Strategic Implications for Strengthening Culinary MSME Competitiveness

The findings indicate that the digitalization of halal certification should be viewed as a strategic capability rather than merely a regulatory compliance mechanism. Participants consistently emphasized that halal certification enhances business competitiveness by strengthening consumer trust, improving product differentiation, and expanding market opportunities. The integration of digital halal certification with e-commerce platforms, digital marketing, and online business services further enables culinary MSMEs to improve operational efficiency, increase business visibility, and reach wider domestic and international markets.[50]

One MSME owner explained that halal certification provides multiple strategic benefits for business development:

> *"The benefits of halal certification for culinary MSMEs include expanding market share, increasing consumer trust in culinary products, and strengthening competition among similar businesses. Products with halal certification are more easily accepted by consumers, particularly Muslim consumers in both domestic and international markets."* (Nurul Qomariyah, Culinary MSME Owner, personal interview, July 14, 2023).

Another respondent highlighted the marketing function of halal certification:

> *"Halal labeling serves as an effective marketing and sales instrument for expanding market networks."* (Kiswakiya, Culinary MSME Owner, personal interview, July 14, 2023).

Similarly, one participant emphasized the strategic value of halal certification as a source of competitive advantage:

[49] Thira Chavarnakul et al., "A Systematic Literature Review on Resilient Digital Transformation, Examining How Organizations Sustain Digital Capabilities," *HighTech and Innovation Journal* 6, no. 2 (June 2025): 687–722.

[50] Riska Amalia, Levina Rachmawati Putri, and Maulina Agustin, "Promoting MSME Sustainability: The Role of Halal Certification and E-Commerce," *Journal Business Administration: Entrepreneurship and Creative Industry* 5, no. 1 (January 2026): 37–42.

> *"Halal certification provides a unique selling point, facilitates entry into the global halal market, enables businesses to reach consumers in many Muslim countries, and increases consumer confidence. Halal certification is essential for improving product sales because consumers are more confident in choosing and purchasing our products."* (Ika Murniati, Culinary MSME Owner, personal interview, July 14, 2023).

These findings demonstrate that halal certification generates value beyond legal compliance by creating a Unique Selling Proposition (USP) that differentiates culinary MSMEs from competitors. The digitalization of halal certification further amplifies this advantage by increasing certification visibility, improving information accessibility, and integrating halal credentials into digital marketplaces. Consequently, halal certification strengthens brand legitimacy while supporting market expansion in increasingly competitive digital business environments.[51]

The three business-owner accounts suggest that halal certification is perceived to enhance product credibility, differentiation, and potential market access. These perceptions indicate possible competitive mechanisms rather than verified business outcomes. Digitalization may complement these mechanisms by facilitating access to certification information and integrating halal credentials into digital marketing channels. This distinction is important when interpreting the findings alongside Azizah et al. whose quantitative study of 925 Indonesian MSMEs identified positive relationships between halal certification and operational and financial performance.[52] The present study contributes a contextual, qualitative explanation of perceived competitive mechanisms, rather than a causal estimate of the economic effect of digital certification.

From a policy perspective, respondents emphasized that maximizing the benefits of digital halal certification requires stronger collaboration among the Halal Product Assurance Organizing Agency (BPJPH**)**, local governments, universities, halal facilitators, and business associations. Such collaboration should prioritize digital literacy programs, technical assistance, simplified certification procedures, and integrated digital information systems that enable MSMEs to complete certification more efficiently and at lower transaction costs. These institutional efforts are particularly important for micro-enterprises

[51] Purnomo, Ikawati, and Erwanto, "Halal Certification Boosts Ratings, Not Sales: Signalling Theory and MSME Modernization in Indonesia's Digital Food Ecosystem."
[52] Siti Nur Azizah et al., "Linking Halal Certificate and Micro, Small and Medium Enterprises (MSMES) Performance in Indonesia,"

that continue to face financial and technological constraints in adopting digital certification systems.[53]

The findings can be interpreted through the Resource-Based View (RBV), which explains competitive advantage in terms of the resources and capabilities through which firms create value.[54] In the context of culinary MSMEs, halal certification may provide a source of product legitimacy and a credible signal of compliance, while the organizational practices required to maintain halal assurance may contribute to the development of internal capabilities. Digitalization, however, should not automatically be classified as a source of sustainable competitive advantage because access to an online certification platform may be available to competing businesses and does not necessarily create a rare or difficult-to-imitate resource. Its strategic relevance depends on how effectively MSMEs combine digital access with reliable documentation, consistent halal governance, institutional support, and market-facing capabilities. Meier et al. similarly emphasize that SME competitiveness through digital transformation depends on the alignment of technological, organizational, and cultural conditions.[55] Moreover, Azizah et al. provide empirical evidence of a positive relationship between halal certification and MSME operational and financial performance, but their findings concern certification rather than the isolated effect of its digitalization.[56] The present study extends this discussion by identifying how digital access, institutional facilitation, and compliance-related practices may work together in shaping the perceived competitive value of halal certification in a regional culinary context.

The interview findings suggest that these dimensions provide a more comprehensive explanation of the potential competitive value of digital certification than administrative efficiency alone. When appropriately aligned, they may help businesses communicate credible halal assurance and support product differentiation and market engagement. This interpretation advances the discussion beyond treating digitalization as a technological intervention by emphasizing the organizational and institutional conditions that shape its

[53] Erny Arianty et al., "Empowering Sharia-Based MSMEs and Financial Institutions to Enhance the Halal Industry Ecosystem," *Journal of Islamic Economics Lariba* 11, no. 1 (June 2025): 297–332.

[54] Jay Barney, "Firm Resources and Sustained Competitive Advantage," *Journal of Management* 17, no. 1 (March 1991): 99–120.

[55] Meier, Eller, and Peters, "Creating Competitiveness in Incumbent Small- and Medium-Sized Enterprises: A Revised Perspective on Digital Transformation."

[56] Siti Nur Azizah et al., "Linking Halal Certificate and Micro, Small and Medium Enterprises (MSMES) Performance in Indonesia,"

practical value. However, the proposed relationship should be understood as an interpretive framework derived from the qualitative findings, not as a statistically validated causal model.

The study's original contribution lies in integrating these three dimensions to explain how digital halal certification may support the foundations of culinary MSME competitiveness in Demak Regency, while recognizing that actual improvements in sales, profitability, or market share require additional performance evidence.

Overall, the findings indicate that digital halal certification may support the competitive development of culinary MSMEs when digital accessibility is accompanied by institutional assistance and effective halal governance. The interviews provide evidence of participants' perceptions regarding product credibility, consumer confidence, differentiation, and potential market opportunities. They also highlight the importance of digital literacy, procedural understanding, and organizational compliance. Taken together, these findings suggest that the contribution of digitalization extends beyond simplifying certification procedures to supporting the processes through which halal assurance is managed and communicated. Nevertheless, the qualitative evidence does not establish that digital certification directly increases sales, profitability, or market share. The principal contribution of the study is therefore to explain the contextual mechanisms and enabling conditions through which digital halal certification may become relevant to MSME competitiveness, providing a basis for future research using longitudinal or quantitative business-performance data.

Conclusion

This study examines digital halal certification among culinary micro, small, and medium-sized enterprises (MSMEs) in Demak Regency, Indonesia. The findings distinguish the role of halal certification in providing formal assurance of compliance with halal requirements from the contribution of digitalization in facilitating access to certification services and administrative procedures. The study's theoretical contribution lies in conceptualizing digital halal certification as an enabling mechanism that supports certification processes rather than an independently established determinant of business competitiveness. However, limited digital literacy, insufficient institutional assistance, and low awareness of the strategic relevance of halal certification remain important implementation challenges. These findings underscore the importance of considering digital

accessibility and institutional support when assessing the potential contribution of digital certification to MSME development.

Accordingly, policymakers and relevant stakeholders should strengthen practical digital literacy programs, provide accessible technical assistance throughout the certification process, and improve coordination among government agencies, halal certification bodies, and MSME support organizations. These measures should directly address the digital and institutional barriers identified in the study, without presuming improvements in business performance. This research is limited by its qualitative descriptive approach and focus on culinary MSMEs in Demak Regency; therefore, its findings are context-specific and do not establish causal relationships between digital halal certification and competitiveness. Future research should examine different regional and business contexts and investigate how digital certification accessibility relates to administrative experiences, consumer responses, market access, and measurable business outcomes.

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