

## Digitalization of Halal Certification for Smes: Between Hope and Reality

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### ABSTRACT

The current implementation of digital halal certification regulations in Indonesia applies not only to large businesses but also to Micro and Small Enterprises (MSEs), resulting in the Halal Product Assurance Agency (BPJPH) developing web-based certification services. One of the keys to supporting the current economic recovery and achieving better economic growth is strengthening the MSE sector. Therefore, this research aims to evaluate the implementation of halal certification requirements, particularly for MSEs. This is intended to provide legal certainty to MSE actors and formulate appropriate halal certification obligations for MSEs, which are vital engines in the Indonesian national economy. The research results indicate that there are still many challenges facing MSE actors regarding halal certification requirements. MSE actors face challenges due to their minimal and uncertain income, making it difficult for them to obtain halal certification. Additionally, their manual administrative practices and lack of understanding of information technology hinder the online halal certification process. Third, in terms of facilities and documents, MSE actors still have limitations in facilities, equipment, and resources needed to meet halal production requirements. They also lack the necessary legal documents. Fourth, in terms of mindset, many MSE operators believe that halal certification requirements only apply to businesses with significant income, and therefore, they do not perceive it as an urgent necessity. This study offers a novel contribution by analyzing the mandatory halal certification for MSEs from a socio-legal perspective. It highlights digitalization challenges and proposes an inclusive regulatory framework to enhance accessibility and compliance. The proposed solutions include improving digital literacy, simplifying administration, and strengthening collaboration among stakeholders.

**Keywords:** certification; digitalization; halal; Indonesia; MSE's.

### INTRODUCTION

The management of halal certification by the state reflects the government's concern for halal products. The current regulations governing halal certification in Indonesia demonstrate the government's presence<sup>1</sup> in ensuring the consumption of halal products by its citizens. Halal certification<sup>2</sup> Indonesia has a long history, as not all elements of society support it, due to political and technical reasons. Islam is a religion that encompasses both religious and state matters, and it does not advocate a separation between the two. The Indonesian state<sup>3</sup> adopts an approach based on religion as the soul of the nation. Although Indonesia does not constitutionally endorse a specific religion, it acknowledges the belief in the Almighty. This principle reflects the role of religion in the

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<sup>1</sup> D. Yuanitasari, A. Sardjono, and H. Susetyo, "The Government's Role in Indonesian Halal Industry to Protect Muslim Consumer," in *Proceedings of the 4th International Conference on Indonesian Legal Studies, ICILS 2021* (Semarang, Indonesia, 2022), <https://doi.org/10.4108/eai.8-6-2021.2314330>.

<sup>2</sup> E. Rahayuningsih and M.L. Ghozali, "Sertifikasi Produk Halal dalam Perspektif Mashlahah Mursalah," *Jurnal Ilmiah Ekonomi Islam* Vol. 7, No. 01, 2021, p. 135–45, <https://doi.org/10.29040/jiei.v7i1.1929>.

<sup>3</sup> D.A. Kurniawati and H. Savitri, "Awareness Level Analysis of Indonesian Consumers toward Halal Products," *Journal of Islamic Marketing* Vol. 11, No. 2, 2020, p. 531–46, <https://doi.org/10.1108/JIMA-10-2017-0104>.

country's social and political life, including the regulation of halal certification.<sup>4</sup> Indonesia's approach to halal certification reflects the government's commitment to protecting and fulfilling the needs of its Muslim population to practising their religious beliefs. The Indonesian government guarantees freedom of religion for its citizens, which includes the freedom to consume halal food and products. However, debates and challenges have arisen in the regulation of halal certification, including technical issues such as complex certification procedures and high costs, which can be obstacles for producers seeking halal certification.<sup>5</sup> Additionally, there is a debate about how the state should regulate and enforce halal standards and the extent to which state authorities can play a role in managing halal certification.

Since 2020, the government has introduced new regulations, namely Law Number 11 of 2020 on Job Creation, commonly known as the omnibus law.<sup>6</sup> This omnibus law serves as a means to replace, revoke, or reorganize various provisions in multiple legal regulations into a single legal framework. The government<sup>7</sup> has designed these regulations to create huge employment opportunities and provide legal certainty to all Indonesian citizens. The establishment of this job creation law is expected to bring about changes in the role of the Indonesian Ulama Council (MUI), both in the administration of halal assurance and in the regulation of food products circulating in Indonesia.

This new regulation stipulates that the government, in addition to collaborating with LPH (Halal Certification Bodies) and MUI (Indonesian Council of Ulama), will also collaborate with other legally recognized Islamic community organizations. Furthermore, there have been several changes introduced in this law,<sup>8</sup> including the removal of certain articles from Law Number 33 of 2014 on Halal Product Assurance (JPH) that impacted MUI's involvement in issuing halal certificates for products and changes in roles related to the issuance and revocation of halal certification and labels on products.

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<sup>4</sup> D.A. Widyaningsih, "Sertifikasi Halal Perspektif Maqashid Syariah," *Falah: Jurnal Hukum Ekonomi Syariah* Vol. 4, No. 1, 2023, p. 61–72, <https://doi.org/10.55510/fjhes.v4i1.224>.

<sup>5</sup> H.D. Faridah, "Halal Certification in Indonesia; History, Development, and Implementation," *Journal of Halal Product and Research* Vol. 2, No. 2, 2019, p. 68, <https://doi.org/10.20473/jhpr.vol.2-issue.2.68-78>.

<sup>6</sup> M.N. Hosen, A.Z. Hutagalung, and M.A. Suma, "Analisis Undang-Undang tentang Jaminan Produk Halal dan UU tentang Cipta Kerja Antara Kenyataan dan Keberlanjutan," *Yudisia: Jurnal Pemikiran Hukum Dan Hukum Islam* Vol. 13, No. 1, 2022, p. 103–24.

<sup>7</sup> Mulyani Toyo, "Labelisasi Halal Terhadap Perilaku Konsumen Dalam Memilih Produk Makanan Sesuai Hukum Islam," *Jurnal Hukum Ekonomi Syariah* Vol. 3, No. 1, 2019, p. 69–83, <https://doi.org/10.26618/j-hes.v3i1.2117>.

<sup>8</sup> H. Pratikto, Y. Agustina, and T.M. Kiranawati, "The Influence of Various Factors on MSME Halal Certification Behavior: An Analysis with Intention as an Intervening Variable," *International Journal of Professional Business Review* Vol. 8, No. 9, 2023, p. 3444, <https://doi.org/10.26668/businessreview/2023.v8i9.3444>.

Additionally, besides halal assurance<sup>9</sup>, businesses in Indonesia also require streamlined processes for halal certification to support the growth of micro-enterprises<sup>10</sup> in the country. Many businesses in Indonesia still lack halal certification, and to address this issue, the Ministry of Religious Affairs through BPJPH has introduced free certification. The government has now implemented a zero-cost (0 Rupiah) policy for Micro and Small Enterprises (MSEs) with specific procedures and steps that MSEs must follow.<sup>11</sup> The initial assumption is that the implementation of the Job Creation Law will have implications for the growth of micro-enterprises in Indonesia.

Currently, in Indonesia, 96% of businesses are micro-enterprises, and 1.2% are small enterprises. There are 64.1 million micro-enterprises, and certifying products from all these enterprises within five years is challenging.<sup>12</sup> This challenge likely led BPJPH to expedite free halal certification through the self-declare scheme. Awareness of product halal status, product quality, and affordability all influence sales growth. In 2021, the Halal Product Assurance Organizing Agency (BPJPH) launched the "10 million certified products" program through the self-declare scheme or Free Halal Certification (*Sertifikasi Halal Gratis/Sehati*) as an acceleration program towards the mandatory halal certification of food and beverage products, slaughterhouses, and services.

Halal certification is currently mandatory for all businesses<sup>13</sup> without exception. However, preliminary research indicates that this requirement is seen as challenging by entrepreneurs, especially micro-enterprises (MSEs).<sup>14</sup> Despite this perception, halal product certification has a positive impact on the development of halal businesses. The government has established regulations in Articles 135-140 regarding the Staging of Halal Certification Obligations for Product Types, stipulating that the staging of halal certification obligations for food and beverage products, slaughterhouses, and cutting and processing units will be in effect from 17 October 2019 to 17

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<sup>9</sup> Susilowati Suparto, Deviana Yuanitasari Djanurdi, and Agus Suwandono, "Harmonisasi dan Sinkronisasi Pengaturan Kelembagaan Sertifikasi Halal Terkait Perlindungan Konsumen Muslim Indonesia," *Jurnal Mimbar Hukum* Vol. 28, No. 3, 2016.

<sup>10</sup> S. Sudarmiatin, F.K. Anam, and V. Wafaretta, "The Intention of Halal Certification by Micro Business," 2020, p. 141–155, <https://doi.org/10.18502/kss.v4i9.7322>.

<sup>11</sup> Sudarmiatin, Anam, and Wafaretta, p. 141–155.

<sup>12</sup> S.A.F. Silalahi, F. Fachrurazi, and A.M. Fahham, "Factors Affecting Intention to Adopt Halal Practices: Case Study of Indonesian Small and Medium Enterprises," *Journal of Islamic Marketing*, 2021, <https://doi.org/10.1108/JIMA-05-2020-0152>.

<sup>13</sup> Suhri Hanafi and Muhammad Syarif NURDIN, "Halal Certification in Used Goods Products in the Perspective of Islamic Law. *Ulul Albab: Jurnal Studi dan Penelitian Hukum Islam*, Vol.5, No. 1, January 2022, 41-55, <https://doi.org/10.30659/jua.v5i1.16051>.

<sup>14</sup> R.T.P. Ningrum, "Problematika Kewajiban Sertifikasi Halal bagi Pelaku Usaha Mikro dan Kecil (UMK)," di Kabupaten Madiun Muslim di Indonesia memiliki potensi bagi Pelaku Usaha Mikro dan Kecil yang mengako," *Istithmar: Jurnal Studi Ekonomi Syariah* Vol. 6, no. 7, 2022, p. 43–58.

October 2024. This entire halal certification process<sup>15</sup> is digital, and it is expected to have beneficial effects, including faster procedures.

Despite the potential benefits of digitalization for entrepreneurs, transitioning to e-commerce can be challenging. To harness the digital boom in Indonesia's economy, familiarity with and basic knowledge of the internet are required, which are also correlated with educational backgrounds and literacy. In the case of MSEs, there are more women (4%) than men (2%) aged 15 and above who have never received formal education.<sup>16</sup> Formal education levels in Indonesia are positively correlated with internet usage. The 2017 Indonesian National Survey project by ISEAS highlighted that 84% of respondents with higher education, 43% of respondents with secondary education, and only 7% of respondents with low education levels used the internet.<sup>17</sup>

Based on initial observations, including examples from large cities like Jakarta and smaller cities like Payakumbuh (West Sumatra), many local products such as snacks, small eateries, and small-scale restaurants fall under the category of micro and small businesses that have not yet obtained halal certification. Furthermore, many entrepreneurs in this sector are not familiar with halal regulations. To support the government's local tourism strengthening program, there is a need to improve the quality and competitiveness of products produced by local industries. One way to achieve this is by encouraging local producers to obtain halal certification for their products.

The implementation of halal product assurance is also questioned, particularly in terms of readiness among business stakeholders. This includes the readiness of human resources (such as auditors) and the mechanisms for obtaining the halal assurance label. Some also perceive this policy as burdensome for micro, small, and medium-sized enterprises (MSMEs) that have to pay for their products to obtain a halal label. As of now, the infrastructure and all the requirements for fulfilling the mandate of the Halal Product Assurance Law, such as halal auditors, halal inspection bodies (LPH), halal standards, tariffs, halal certification, registration systems, halal and non-halal product labels or logos, as well as instruments and infrastructure, have not been fully prepared by the Halal Product Assurance Agency (BPJPH).

Previously, several journal articles have discussed halal certification, including a journal article titled *UMKM Participation in Halal Industry: The Legal Framework and Opportunities*, written by Fitri Ana Siregar and Khairil Razali in the *Jurnal Ilmiah Islam Futura* in 2024. This article discusses the potential of halal-based MSMEs for the economy after the Covid-19 pandemic. The research findings show that existing trends determine consumption patterns in society. Therefore, halal-based MSMEs have the potential to improve the economy during and after the Covid-19 pandemic. Next, there is a journal article on Islamic law titled *Legal Awareness of Business Actors Regarding the Obligation of Halal Certification: A Literature Study in 2023*. This research aims to determine the level of legal awareness among business actors in certifying the products they distribute. The research results

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<sup>15</sup> H.S.H. Wijoyo, M.S. Anam, and B. Isyanto, "Implementation halal certification for creative economy business actors in the food and beverage sub-sector," *Abdimas: Jurnal Pengabdian Masyarakat Universitas Merdeka Malang* Vol. 8, No. 2, 2023, p. 326–35, <https://doi.org/10.26905/abdimas.v8i2.9961>.

<sup>16</sup> Badan Pusat Statistik, "Survei Sosial Ekonomi Nasional 2015–2019" (Statistics Indonesia, 2019).

<sup>17</sup> K. Azali, *Indonesia's divided digital economy* (ISEAS Yusof Ishak Institute, 2017).

indicate that business actors have a very low level of legal awareness regarding the obligation for halal-certified products. This is evident from aspects such as legal knowledge, legal understanding, legal attitudes, and legal behavior patterns, all of which fail to meet the four required indicators. In addition, an article titled *The Problematic Obligation of Halal Certification for Micro, Small, and Medium Enterprises Based on Gustav Radbruch's Theory*, published in the *Jurnal Batavia* in 2024, explains that the obligation of halal certification for MSMEs aims to provide a sense of security, safety, and certainty regarding the availability of halal products for the public. However, the high cost of halal certification remains a significant obstacle for MSMEs.

Meanwhile, the article written by the author differs from the previous ones. This article specifically evaluates the implementation of halal certification obligations, particularly for micro enterprises. The aim is to provide legal certainty for micro-enterprise actors and to formulate appropriate regulations for halal certification obligations, as micro enterprises play a crucial role in Indonesia's national economy. These indications suggest the need for further study regarding the implementation of regulations within the framework of legal protection through various related institutions to support MSMEs in enhancing the local industry sector, especially through the application of halal certification. Therefore, the concept of digitalization regulations for MSMEs is required to provide legal certainty for MSME entrepreneurs.

## METHODS

The research is conducted using a socio-legal approach, with primary data collected through observations, whether directly involved or not. In addition, data is also gathered through interviews and focus group discussions with several MSE business respondents in various regions of Indonesia. Meanwhile, secondary data is obtained from literature sources and interviews with experts related to the researcher's topic. The research method employed is descriptive-analytical.

## DISCUSSION

### Regulations on Halal Certification for MSEs in Indonesia

The potential for halal certification is also supported by MSE entrepreneurs and consumers<sup>18</sup> increasingly realizing the importance of halal labelling on products. Halal certification provides protection, assurance, and information about the halal status of products, and serves as an ethical business instrument. It benefits consumers by enhancing their trust<sup>19</sup> and helps producers access the

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<sup>18</sup> C.A.C. Wel, S.N.A. Ashari, and M.F. Ismail, "The Influence of Halal Certification, Halal Logo, Halal Assurance, Safety and Purity on Customer Purchase Intention," *International Journal of Academic Research in Business and Social Sciences* Vol. 12, No. 1, 2022, p. 12–27.

<sup>19</sup> Deviana Yuanitasari, Hazar Kusmayanti, and Agus Suwandono, "A Comparison Study of Strict Liability Principles Implementation for the Product Liability within Indonesian Consumer Protection Law between Indonesia and United States of America Law," *Cogent Social Sciences* Vol. 9, No. 2, 2023, <https://doi.org/10.1080/23311886.2023.2246748>.

global market. Halal certification<sup>20</sup> along with halal awareness and halal food ingredients, plays a significant role in influencing the purchase intention of halal food products among Muslim students. The halal lifestyle<sup>21</sup> has recently become a trend, not only among Muslim populations but also globally, supporting the increasing demand for halal products and services. On a global scale<sup>22</sup> certification and labelling of halal products provide assurance to Muslim consumers worldwide while also serving as a means to reach the global market.

The Mechanism of Free Halal Certification (*Sehati*) is one of the conveniences provided by the government to MSE entrepreneurs through the self-declaration scheme.<sup>23</sup> However, despite being free of charge, it does not mean that the halal certification process is entirely cost-free. There is a fee of Rp300,000.00 (three hundred thousand Indonesian Rupiah), which is allocated from various sources such as the State Budget (APBN), Regional Budgets (APBD), partnership funds, grants, and other legitimate and non-binding sources of funding. The regulations governing the implementation, administrative requirements, and sanctions related to *Sehati* include:

- 1) Law Number 33 of 2014 on Halal Product Assurance,
- 2) Government Regulation Number 39 of 2021 on the Implementation of Halal Product Assurance,
- 3) Minister of Religious Affairs Regulation Number 20 of 2021 on Halal Certification for Micro and Small Businesses,
- 4) Head of the Halal Product Assurance Organizing Agency's (BPJPH) Decision Number 33 of 2022 on Technical Guidelines for Assisting the Halal Product Process in Determining Halal Certification Requirements for Micro and Small Businesses Based on Business Owner Statements,
- 5) Head of the Halal Product Assurance Organizing Agency's (BPJPH) Decision Number 77 of 2021 on the Determination of Technical Guidelines for Facilitating Free Halal Certification for Micro and Small Businesses in 2021, and
- 6) Head of the Halal Product Assurance Organizing Agency's (BPJPH) Decision Number 122 of 2022 on the Technical Guidelines for Facilitating Free Halal Certification for Micro and Small Businesses in 2022.

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<sup>20</sup> Devi Septiani and Ahmad Ajib Ridwan, "The Effects of Halal Certification and Halal Awareness on Purchase Intention of Halal Food Products in Indonesia," *Indonesian Journal of Halal Research*, No. 2, 2020, 55-60 <https://doi.org/10.15575/ijhar.v2i2.6657>.

<sup>21</sup> A. Rejeb, K. Rejeb, and S. Zailani, "Are Halal Food Supply Chains Sustainable: A Review and Bibliometric Analysis," *Journal of Foodservice Business Research* Vol. 24, No. 5, 2021, p. 554–95, <https://doi.org/10.1080/15378020.2021.1883214>.

<sup>22</sup> A. Billah, M.A. Rahman, and M.T. Bin Hossain, "Factors Influencing Muslim and Non-Muslim Consumers' Consumption Behavior: A Case Study on Halal Food," *Journal of Foodservice Business Research* Vol. 23, No. 4, 2020, p. 324–49, <https://doi.org/10.1080/15378020.2020.1768040>.

<sup>23</sup> K. 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* Vol. 5, No. 1, 2023, p. 1–22, <https://doi.org/10.21580/jdmhi.2023.5.1.15041>.

Figure 1 Process of halal certification through self-declaration:



Literally translated as:

Process of Halal Certification Application through Self Declare

- Entrepreneurs create SIHALAL account
- Entrepreneurs apply for Halal Certificate
  - 1) Choose Self Declare application
  - 2) Input Facilitation Code
- BPJPH issues receipt of documents
- BPJPH verifies the documents
- PPH Assistant verifies and validates the application
- The MUI conduct halal fatwa session (hearing)
- BPJPH issues Halal Certificate
- Entrepreneurs download Halal Certificate on SIHALAL

Source: sihalal.go.id

In Government Regulation Number 39 of 2021 on the Implementation of Halal Product Assurance, there are provisions regarding micro and small business entrepreneurs in the halal certification application process. Halal certification for micro and small businesses is based on the self-declaration<sup>24</sup> of micro and small business entrepreneurs. This provision applies to productive micro and small business entrepreneurs who have a net worth or annual sales revenue as stipulated by the prevailing laws and regulations. The self-declaration by micro and small business

<sup>24</sup> C.B. Utami et al., "Antecedent of Knowledge, Awareness and Willingness of SMEs Actors to Register for Halal Self Declare Certification", *Iqtishodia: Jurnal Ekonomi Syariah* Vol. 7, No. 2, 2022, p. 29–35, <https://doi.org/10.35897/iqtishodia>.

entrepreneurs is made based on the halal standards set by BPJPH (the Halal Product Assurance Organizing Agency). The minimum halal standards include the business entrepreneurs' statement in the form of an agreement or declaration containing the halal status of the products and ingredients used, as well as the halal production process (PPH), along with PPH assistance.

The criteria for business operators who can utilize self-declaration are as follows: the product is not risky, the ingredients' halal status is certain, and the production process is ensured to be halal and simple. Once micro and small business entrepreneurs have made a self-declaration and meet these two criteria, the process continues with verification and validation of the statement carried out by a Halal Product Process Assistance (PPH). PPH assistance can be provided by Islamic community organizations or Islamic legal entities, government institutions, or businesses as long as they partner with Islamic community organizations or Islamic legal entities with legal status and/or universities. If the self-declaration meets the requirements, the results of verification and validation by the PPH assistance will be forwarded to BPJPH. BPJPH will receive the business entrepreneurs' statement, which will then be handed over to MUI (the Indonesian Ulema Council) for a halal fatwa session.<sup>25</sup> The MUI halal fatwa session will issue a verdict of halal or not halal. If it is deemed halal, BPJPH will issue the halal certificate. BPJPH issues Halal Certificates that are valid for 4 (four) years. The issuance of Halal Certificates by BPJPH is carried out within a maximum period of 1 (one) day from the date the halal status determination decision from MUI is received by BPJPH, in accordance with the provisions of Article 78 of Government Regulation Number 39 of 2021 on the Implementation of Halal Product Assurance.

Similarly, regarding the extension of the halal certification from 2 years to 4 years, it is hoped that BPJPH and LPPOM MUI can facilitate the process. In connection with the validity period of the halal certificate, it is also important for the public to be aware of the implementation of the Indonesian Ulema Council's Decree Number: Kep-49/DHN-MUI/V/2021 on the Change in the Validity Period of Halal Certificates, which was previously 2 (two) years and is now 4 (four) years. Starting from 1 December 2021, the Halal Product Assurance Organizing Agency (BPJPH) under the Ministry of Religious Affairs has implemented service fees as a Public Service Agency (*Badan Layanan Umum* or BLU) of BPJPH. This regulation is stipulated in the Head of BPJPH's Decision Number 141 of 2021 on the Determination of BLU BPJPH Service Tariffs and BPJPH Regulation Number 1 of 2021 on the Procedure for Payment of BLU BPJPH Service Tariffs. The issuance of BPJPH Regulation on the Procedure for Payment of BLU BPJPH Service Tariffs is a follow-up to the issuance of Minister of Finance Regulation (PMK) No.57/PMK.05/2021 on BLU BPJPH Service Tariffs, which was promulgated on 4 June 2021. This is also in accordance with Government Regulation Number 39 of 2021 on the Implementation of Halal Product Assurance.

Within these regulations, the BLU BPJPH service fees are outlined, consisting of two types of tariffs: the main service tariff and the supporting service tariff. The main service tariff includes

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<sup>25</sup> M. Umami, S. Nada, and N.L. Anisa, "Implementation Halal Product Certification through Self-Declare Program for MSEs Products in Cirebon Regency," *Journal of Community Service and Empowerment* Vol. 4, No. 2, 2023, p. 300-307, <https://doi.org/10.22219/jcse.v4i2.25058>.

certification of halal goods and services, accreditation of Halal Inspection Bodies (LPH), registration of halal auditors, auditor and halal supervisor training services, as well as certification of auditor and halal supervisor competencies. The supporting service tariff covers the use of land, rooms, buildings, equipment, machinery, laboratories, and motor vehicles.

The services related to halal certification for goods and services include:

- a) Application services for halal certification with the statement of the business owner.
- b) Application services for halal certification.
- c) Application services for the extension of halal certificates.
- d) Registration services for foreign halal certificates.

One crucial part of these regulations is the provision of service fees for halal certification for micro and small businesses (MSEs). This provision covers the fee for halal certification under two schemes: the self-declaration and the regular scheme. There are two fee provisions for halal certification for MSEs because there are two halal certification mechanisms mandated by the Law and Government Regulation, namely self-declaration and regular. Through the self-declaration scheme, the application fee for halal certification is set at zero rupiahs or free of charge. The free service fee does not mean that the halal certification process does not incur any costs. In the implementation of the self-declaration process, there is a service fee imposed on the application for halal certification by business owners, which is Rp 300,000. However, the service fee can be sourced from various funds, including the state budget (APBN), regional budgets (APBD), alternative financing for MSEs, partnership funding, government grants, funding from other government agencies and institutions, revolving funds, or other legitimate and non-binding sources.

Figure 2 Tariffs for Halal Certification for MSEs



Tariffs for Halal Certificate for MSEs

Source: sihalal.go.id

The amount of payment for the components of the halal certification application service fee with a business entrepreneur's statement, which was deposited by the service fee facilitator for the 2021 fiscal year, is Rp 300,000. The breakdown of this fee is as follows: Rp 25,000 for the registration, document completeness check, and issuance of the halal certificate component; Rp 25,000 for the supervision and monitoring component by the halal process companion institution (LPPOM); Rp 150,000 for the incentive component for halal process companions; and Rp 100,000 for the MUI halal fatwa session component.

As for the halal certification service for MSEs through the regular scheme, the service fee is charged to the business owner. The service fee for halal certification for MSEs through the regular scheme, charged to the business owner, includes a registration fee and the determination of product halal status, amounting to Rp 300,000. Additionally, there is a fee of Rp 350,000 for the examination of product halal status by the Halal Inspection Agency (LPH). Therefore, the total halal certification fee for MSEs through the regular scheme is Rp 650,000.

### **The Implementation Challenges of the Digitalization Regulation Regarding the Halal Certification Requirement for Mses in Both Large and Small Cities in Indonesia**

Self-Declaration<sup>26</sup> is a statement regarding halal certification<sup>26</sup> made by Micro and Small Business Owners (MSEs). The obligation for MSEs<sup>27</sup> to have a halal certificate is based on their self-made statements (in accordance with Article 79 paragraph 1 of Government Regulation Number 39 of 2021). The MSEs<sup>28</sup> referred to are productive businesses with net assets or annual sales revenue as stipulated by the prevailing regulations, and there are two main criteria: a) The products they produce do not pose any risks and use ingredients with guaranteed halal status, and b) The production process used is verified as halal and simple (in accordance with Article 79 paragraph 2 of Government Regulation Number 39 of 2021). Furthermore, Article 79 paragraphs (3) and (4) explain that the statements made by MSEs must adhere to the halal standards set by the Halal Product Assurance Organizing Agency (BPJPH). The minimum halal standards referred to should include: A statement from the Business Owner in the form of an agreement or pledge that includes information about

- a) the halal status of products and ingredients used;
- b) The Halal Product Process, abbreviated as PPH, is a series of activities to ensure product halal status, including the supply of ingredients, processing, storage, packaging, distribution, sales, and presentation of products (Article 1 paragraph 4 of Regulation No. 39/2021).

The entire application process uses digital means through an application and is free for MSEs business owners.

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<sup>26</sup> A. Khalimy et al., "The Intersection of the Progressive Law Theory and the Self-Declaration Concept of MSEs Halal Certification," *Journal of Indonesian Legal Studies* Vol. 8, No. 1, 2023, 159–98, <https://doi.org/10.15294/jils.v8i1.66087>.

<sup>27</sup> I. Djakfar and I. Isnaliana, "Model Pendampingan Pengurusan Sertifikasi Produk Makanan Halal bagi Umkm dalam Mendukung Banda Aceh Menjadi Kota Wisata Halal," *Wikrama Parahita: Jurnal Pengabdian Masyarakat* 5, no. 1, 2021, 80–88, <https://doi.org/10.30656/jpmwp.v5i1.2742>.

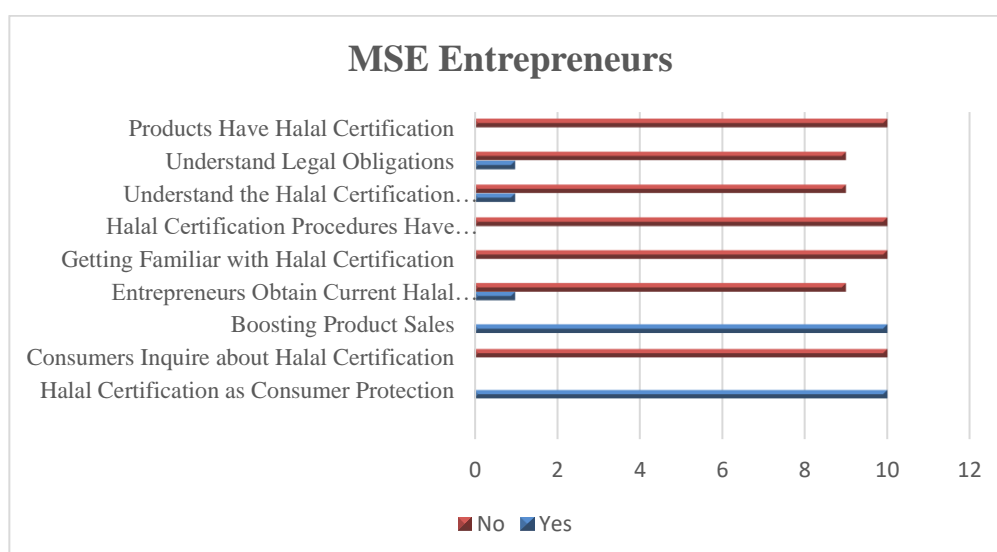
<sup>28</sup> S. Gunawan et al., "Pendampingan produk UMKM di Sukolilo menuju sertifikasi halalan thayyiban," *SEGAWATI, Jurnal Pengabdian Kepada Masyarakat* 4, no. 1, 2020, 14, <https://doi.org/10.12962/j26139960.v4i1.6446>.

The provision of free halal certification to Micro and Small Businesses (MSEs) is intended to provide convenience but has the potential for further analysis of its impacts. Despite the issuance of various regulations related to the Halal Product Assurance (JPH) system, this does not guarantee the success of the implementation of free halal certification. This analysis is based on the government's target to include all MSEs<sup>29</sup>, but with the limitations of the "sehati" program and the ambitious targets set for 2024. The obligation of halal certification without legal sanctions can create legal loopholes, resulting in the ineffectiveness of such efforts when applied to MSEs.

Many Micro and Small Businesses (MSEs) do not yet have halal certification, primarily due to a lack of understanding about the halal certification process. Although Law No. 33 of 2014 on Halal Product Assurance<sup>30</sup> has been enacted and implies that halal certification is mandatory, many business owners do not fully comprehend this. In other words, the government requires business owners to obtain halal certification for the products they produce and sell to the public.<sup>31</sup>

In addition to maintaining consumer trust<sup>32</sup>, especially among Muslim consumers, in halal product assurance, halal certification also aims to prepare business owners to compete in a constantly evolving market. This is because the market has various demands that evolve over time. The author provides an example from DKI Jakarta, representing a large city in Indonesia, as can be seen in the table:

**Table 1. Interview Result of MSEs Entrepreneurs in Jakarta**



<sup>29</sup> Novita Nurul Islami, "Implementation of Halal Certification: Perspective of Micro, Small, and Medium Enterprises for Food Products," *Heritage* Vol. 4, No. 1, 2023, <https://heritage.uinkhas.ac.id/index.php/hrtg/article/view/109>.

<sup>30</sup> Ida Giyanti1a, Erna Indriastiningsih, "Impact of Halal Certification on The Performance of Food Small Medium Enterprises," 2019, <http://journals.ums.ac.id/index.php/jiti/index.doi:10.23917/jiti.v18i2.7242>.

<sup>31</sup> H. Pratama, "Stakeholders Synergy in Accelerating Msme (UMKM) Halal Certification Through Halal Self-Declare," *Jurnal Ilmiah Mahasiswa Raushan Fikr* Vol. 11, No. 2, 2022, p. 271–87, <https://doi.org/10.24090/jimrf.v11i2.6054>.

<sup>32</sup> M. Soltanian et al., "Motivations of SME Entrepreneurs to Become Halalpreneurs," *Journal of Science and Technology Policy Management* Vol. 7, No. 2, 2016, p. 173–89, <https://doi.org/10.1108/JSTPM-07-2015-0023>.

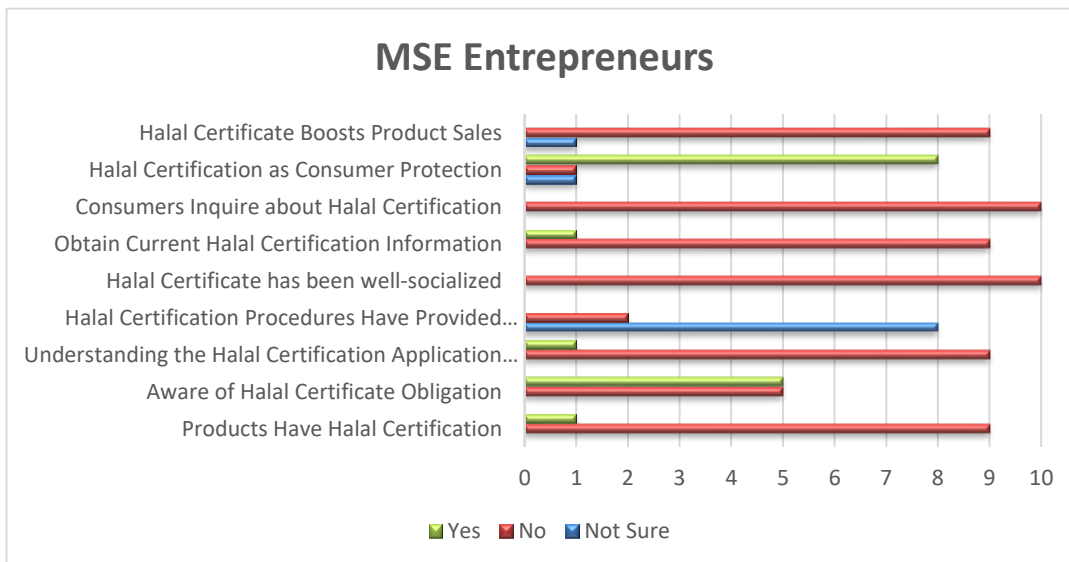
The field research was conducted through interviews with MSE business owners in Jakarta. The researcher conducted interviews with 10 MSE business owners, including restaurants, chicken porridge sellers, pastry sellers, and *soto* (Indonesian soup) sellers. Based on this field research, regarding the implementation of halal certification requirements for MSEs, the results indicate that out of the 10 MSEs business owners in Jakarta, many products do not yet have halal certification. In fact, all 10 of them have not initiated the process to obtain halal certification. Only 1 out of the 10 business owners is aware that obtaining a halal certificate is mandatory for all businesses in the food and beverage sector. This lack of awareness is primarily due to the fact that most business owners do not know the procedures for obtaining halal certification, and there have been no government-led socialization or awareness campaigns.

The impact of many business owners not knowing the procedures for obtaining halal certification results in a lack of knowledge among the majority of business owners regarding the current procedures for halal certification. This lack of awareness is due to the absence of socialization about the regulatory information and procedures for halal certification by relevant government agencies to business owners. This is evidenced by the fact that 10 out of the business owners stated that there has been no government or specific agency-led awareness campaigns to provide information about halal certification.

The reasons given by business owners for the challenges they face in their businesses are generally related to market competition and the difficulty of reaching a wide range of consumers of all ages, whether related to marketing or the products themselves. However, there is no mention of halal certification as a specific challenge. On the other hand, business owners who already have halal certification face challenges related to the lengthy procedure for obtaining the certification.

Based on the field research, it was found that all 10 business owners stated that their halal certification had never been questioned by consumers. Additionally, all 10 business owners agreed that halal certification can provide protection for consumers, especially those who follow the Muslim faith, and 10 of them believe that it can help increase their sales

**Table 2. Interview Result of MSEs Entrepreneurs in Payakumbuh City, West Sumatra**



The field research was conducted in the Payakumbuh City area of West Sumatra, Indonesia, using direct and online interviews with 10 micro and small business owners, including street vendors selling various products such as meatball soup, fried snacks, chicken rice, crepes, chicken satay, *jengkol* chips, *sanjai* chips, and others. Based on this field research and considering the obligation to implement halal certification for all food and beverage businesses in Payakumbuh City, the following data were obtained:

Out of the 10 business owners interviewed, almost all of them did not have halal certification for their products. Only 1 out of the 10 business owners had halal certification, and they obtained it through the Self Declare scheme. This means that the other 9 business owners did not have halal certification at all. The business owner with halal certification, "Sate Rina," learned about the obligation to have halal certification for their products through the internet. However, they did not find the process of obtaining halal certification to be easy. The rest of the business owners stated that they had no knowledge of the procedure for obtaining halal certification.

Most of the business owners who do not have halal certification not only do not know the procedure for obtaining halal certification, but they also stated that they were entirely unaware of this obligation. Some business owners are aware of the obligation to have halal certification for their products but are reluctant to pursue it because they believe it would be challenging, especially for small-scale traders. One business owner even stated that the obligation for halal certification only applies to large branded products.

Based on this information, it is clear that there is a severe lack of information and awareness among business owners regarding the requirement for halal certification and the procedures to obtain it. This is due to the lack of awareness campaigns conducted by the Payakumbuh City Government or relevant institutions. As a result, many business owners, especially small-scale traders, feel that they can continue selling their products without halal certification.

Business owners also stated that having a halal certificate might not necessarily increase their sales, especially in a city like Payakumbuh, where the majority of the population is Muslim. Consumers are already confident that the products they purchase are halal, and business owners believe that the ingredients they use are 100% halal. None of the business owners have ever been asked by consumers whether their products have halal certification or not. Based on this, many business owners have become unaware of their obligation to obtain halal certification for their products.

However, after conducting interviews with experts, all business owners agreed that halal certification provides protection to consumers, especially Muslims who have the right to know if the food and beverages they consume are safe and halal. Unfortunately, there is a lack of awareness regarding this obligation, and business owners hope that the Payakumbuh City Government can conduct awareness campaigns and make it easier for small-scale traders to obtain halal certification, particularly addressing cost-related issues and other administrative requirements. In practice, Small

and Medium-Sized Enterprises, many of which operate on a small production scale, require a significant amount of time and resources. They have to prepare various documents, undergo training, and meet requirements that are considered challenging in order to produce goods that meet halal standards. Nevertheless, MSEs remain confident that the products they sell are halal and safe.

Based on the information obtained from the previous interviews, it can be concluded that Micro and Small Business Owners (MSEs) face limitations in terms of facility availability. In the production process, it is essential to have clean and well-maintained facilities, such as handwashing stations, areas separated from items considered haram or impure, and processing that does not come into direct contact with the ground. However, MSEs often lack adequate space or facilities. Cramped living conditions often force them to store production materials haphazardly, sometimes even in close proximity to traffic areas.

Furthermore, there are challenges related to meeting halal requirements, both in terms of the materials used and the production process. One example is the requirement that the materials used must be halal and must have a halal label displayed on the packaging, except for raw materials such as rice, onions, chilli, and tomatoes sourced from the original suppliers. Although MSEs have not fully met the criteria for halal production facilities, they make efforts to explain to consumers that their products are genuinely made from halal ingredients and produced in a clean and well-maintained manner.

Regarding document completeness, MSE entrepreneurs do not yet possess all the necessary documents for halal certification registration administration. These documents include information about the business owner, business permits or legal status currently in operation, and details about certified halal supervisors. Additionally, the documents must list the names and types of products that do not violate rules or use names associated with things considered haram, a list of materials used (including raw materials, additives, and auxiliary materials), the halal production process, and documents related to the halal assurance system. One of the main concerns for MSEs is the costs associated with obtaining halal certification. For instance, to obtain a business permit or legal status, Tax Identification Number (NPWP) documents are required, and most MSEs do not have NPWP.

Another challenge is the mindset or perception held by MSEs regarding halal certification. This mindset is a result of their experiences and situations, which then influence how they perceive and respond to halal certification. For MSEs, the obligation to obtain halal certification may not be seen as an urgent need if there is no direct encouragement or support from the Village Government or relevant authorities that can assist, facilitate, and provide guidance in the halal certification process. Furthermore, when asked about their ability to manage halal certification, MSE entrepreneurs mentioned that they could actually do it if the cost were free and the process was not too complicated. However, they believe that halal certification is not really necessary for small home-based businesses because their customers are neighbors in the vicinity, and possibly as far as two to three neighboring villages. They are familiar with each other and already know each other's conditions. According to MSE entrepreneurs, halal certification should only be mandatory for larger

businesses because they produce large quantities of products consumed by people beyond their regions.

BPJPH's commitment<sup>33</sup> to provide halal certification services digitally through this information system is the implementation of the mandate of Article 148 of Government Regulation No. 39 of 2021, which states that the Halal Product Assurance (JPH) service system uses integrated electronic services. However, the problem that arises is that many MSEs are not yet familiar with technology, and some still believe that MSEs are small businesses that do not need to use digital applications seriously. In addition, the submission process through the *Sehati* system, which consists of several stages, is considered quite complicated and cumbersome.

The submission process involves several requirements, including the Business Identification Number (NIB) issued by the Online Single Submission (OSS) agency, which can be accessed through the [oss.go.id](http://oss.go.id) website. After obtaining the NIB, businesses can apply for Business and Commercial or Operational Permits according to their respective fields. In addition, they must also complete other documents such as the Taxpayer Identification Number (NPWP), the Household Food Industry (PIRT), and the Registration Number from the Food and Drug Monitoring Agency (BPOM) for certain specific products. Some business owners even delegate this procedure to the PPH facilitator, although it is not the facilitator's obligation. MSEs are unique from other established businesses. Hence, in addition to patience, precision is also required because business owners sometimes delegate all responsibilities to the facilitator. This is a challenge that needs to be faced, but facilitators will be trained for this.

*Sihalal* is a web-based Halal Certification service application developed by BPJPH to support halal certification services. *Sihalal* can be accessed online via a computer or smartphone with internet access. There are always irresponsible individuals and parties who take advantage of opportunities in any situation and condition, as is the case with the *Sehati* program for MSEs. As explained in the section on the lack of responsiveness of MSEs to regulations and digital services, if they are not vigilant, they may access similar websites such as *sihalal.com*, which is widely distributed through WhatsApp. As a result, many complaints arise regarding the delayed implementation of free halal certification as expected by MSEs. BPJPH emphasizes that the *sihalal.com* website is not related to the *Sihalal* application developed by BPJPH, namely the [ptsp.halal.go.id](http://ptsp.halal.go.id) website.

## CLOSING

Based on the research and discussions presented above, the obligation of halal certification for Micro and Small Business (MSEs) entrepreneurs, both in urban and rural areas, faces several key challenges. In terms of knowledge and information, MSEs often lack awareness of the halal

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<sup>33</sup> Z.E. Fitri and Mardiah, "Kajian Sertifikasi Halal Gratis (Sehati) Dengan Skema Self Declare Pada UMKM Dapur Mimi," *Jurnal Ilmiah Pangan Halal* Vol. 5, No. 1, 2023, p. 6–15, <https://doi.org/10.30997/jiph.v5i1.9996>.

certification obligation due to insufficient socialization from the government and relevant stakeholders. As a result, this information does not reach those operating in rural or peripheral areas.

Furthermore, in terms of economic sufficiency, finances, and accessibility, MSEs face challenges due to their minimal and uncertain income, making it difficult for them to pursue halal certification. Their habit of manual administration and limited understanding of information technology also hinder the online halal certification process.

Based on these findings, several recommendations related to the issue of halal certification can be made:

- 1) **Enhancing Halal Certification Awareness:** It is crucial to improve awareness about halal certification, involving local governments and village authorities. This way, halal certification literacy can reach rural and peripheral communities with distinct characteristics.
- 2) **Collaboration and Synergy:** Collaboration and synergy among various stakeholders, including village governments, community organizations, NGOs, and universities, are essential to provide support and guidance to MSEs in rural and peripheral areas. This collaboration can help raise awareness of the importance of halal certification.

By implementing these recommendations, it is possible to address the challenges faced by MSEs in obtaining halal certification and promote greater compliance with halal standards, even in rural and peripheral regions.

## REFERENCES

### Journal

- A. Billah, M.A. Rahman, and M.T.Bin Hossain, "Factors Influencing Muslim and Non-Muslim Consumers' Consumption Behavior: A Case Study on Halal Food," *Journal of Foodservice Business Research* Vol. 23, No. 4, 2020, <https://doi.org/10.1080/15378020.2020.1768040>.
- A. Khalimy et al., "The Intersection of the Progressive Law Theory and the Self-Declaration Concept of MSEs Halal Certification," *Journal of Indonesian Legal Studies* Vol. 8, No. 1, 2023, <https://doi.org/10.15294/jils.v8i1.66087>.
- A. Rejeb, K. Rejeb, and S. Zailani, "Are Halal Food Supply Chains Sustainable: A Review and Bibliometric Analysis," *Journal of Foodservice Business Research* Vol. 24, No. 5, 2021, <https://doi.org/10.1080/15378020.2021.1883214>.
- C.A.C. Wel, S.N.A. Ashari, and M.F. Ismail, "The Influence of Halal Certification, Halal Logo, Halal Assurance, Safety and Purity on Customer Purchase Intention," *International Journal of Academic Research in Business and Social Sciences* Vol. 12, No. 1, 2022.
- C.B. Utami et al., "Antecedent of Knowledge, Awareness and Willingness of SMEs Actors to Register for Halal Self Declare Certification"," *Iqtishodia: Jurnal Ekonomi Syariah* Vol. 7, No. 2, 2022, <https://doi.org/10.35897/iqtishodia>.
- D.A. Kurniawati and H. Savitri, "Awareness Level Analysis of Indonesian Consumers toward Halal Products," *Journal of Islamic Marketing* Vol. 11, No. 2, 2020, <https://doi.org/10.1108/JIMA-10-2017-0104>.

- D.A. Widyaningsih, "Sertifikasi Halal Perspektif Maqashid Syariah," *Falah: Jurnal Hukum Ekonomi Syariah* Vol. 4, No. 1, 2023, <https://doi.org/10.55510/fjhes.v4i1.224>.
- Devi Septiani and Ahmad Ajib Ridlwan, "The Effects of Halal Certification and Halal Awareness on Purchase Intention of Halal Food Products in Indonesia," *Indonesian Journal of Halal Research*, No. 2, 2020, <https://doi.org/10.15575/ijhar.v2i2.6657>.
- D. Yuanitasari, A. Sardjono, and H. Susetyo, "The Government's Role in Indonesian Halal Industry to Protect Muslim Consumer," in *Proceedings of the 4th International Conference on Indonesian Legal Studies, ICILS 2021* (Semarang, Indonesia, 2022), <https://doi.org/10.4108/eai.8-6-2021.2314330>.
- Deviana Yuanitasari, Hazar Kusmayanti, and Agus Suwandono, "A Comparison Study of Strict Liability Principles Implementation for the Product Liability within Indonesian Consumer Protection Law between Indonesia and United States of America Law," *Cogent Social Sciences* Vol. 9, No. 2, 2023, <https://doi.org/10.1080/23311886.2023.2246748>.
- E. Rahayuningsih and M.L. Ghozali, "Sertifikasi Produk Halal dalam Perspektif Mashlahah Mursalah," *Jurnal Ilmiah Ekonomi Islam* Vol. 7, No. 01, 2021, <https://doi.org/10.29040/jjiei.v7i1.1929>.
- H.D. Faridah, "Halal Certification in Indonesia; History, Development, and Implementation," *Journal of Halal Product and Research* Vol. 2, No. 2, 2019, <https://doi.org/10.20473/jhpr.vol.2-issue.2.68-78>.
- H. Pratama, "Stakeholders Synergy in Accelerating Msme (UMKM) Halal Certification Through Halal Self-Declare," *Jurnal Ilmiah Mahasiswa Raushan Fikr* Vol. 11, No. 2, 2022, <https://doi.org/10.24090/jimrf.v11i2.6054>.
- H. Pratikto, Y. Agustina, and T.M. Kiranawati, "The Influence of Various Factors on MSME Halal Certification Behavior: An Analysis With Intention as an Intervening Variable," *International Journal of Professional Business Review* 8, no. 9, 2023, <https://doi.org/10.26668/businessreview/2023.v8i9.3444>.
- H.S.H. Wijoyo, M.S. Anam, and B. Isyanto, "Implementation halal certification for creative economy business actors in the food and beverage sub-sector," *Abdimas: Jurnal Pengabdian Masyarakat Universitas Merdeka Malang* 8, no. 2, 2023, <https://doi.org/10.26905/abdimas.v8i2.9961>.
- I. Djakfar and I. Isnaliana, "Model Pendampingan pengurusan sertifikasi produk makanan halal bagi umkm dalam mendukung Banda Aceh menjadi kota wisata halal," *Wikrama Parahita: Jurnal Pengabdian Masyarakat* 5, no. 1, 2021, <https://doi.org/10.30656/jpmwp.v5i1.2742>.
- Ida Giyanti1a, Erna Indriastiningsih, "Impact of Halal Certification on The Performance of Food Small Medium Enterprises," 2019, <http://journals.ums.ac.id/index.php/jiti/index.doi:10.23917/jiti.v18i2.7242>.
- K. 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* Vol. 5, No. 1, 2023, <https://doi.org/10.21580/jdmhi.2023.5.1.15041>.

- M.N. Hosen, A.Z. Hutagalung, and M.A. Suma, "Analisis Undang-Undang tentang Jaminan Produk Halal dan UU tentang Cipta Kerja (Antara Kenyataan dan Keberlanjutan)," *Yudisia: Jurnal Pemikiran Hukum Dan Hukum Islam* Vol. 13, No. 1, 2022.
- M. Umami, S. Nada, and N.L. Anisa, "Implementation Halal Product Certification through Self-Declare Program for MSEs Products in Cirebon Regency," *Journal of Community Service and Empowerment* Vol. 4, No. 2, 2023, <https://doi.org/10.22219/jcse.v4i2.25058>.
- M. Soltanian et al., "Motivations of SME Entrepreneurs to Become Halalpreneurs," *Journal of Science and Technology Policy Management* Vol. 7, No. 2, 2016, <https://doi.org/10.1108/JSTPM-07-2015-0023>.
- Mulyani Toyo, "Labelisasi Halal Terhadap Perilaku Konsumen Dalam Memilih Produk Makanan Sesuai Hukum Islam," *Jurnal Hukum Ekonomi Syariah* Vol. 3, No. 1, 2019, <https://doi.org/10.26618/jhes.v3i1.2117>.
- Novita Nurul Islami, "Implementation of Halal Certification: Perspective of Micro, Small, and Medium Enterprises for Food Products," *Heritage* Vol. 4, No. 1, 2023, <https://heritage.uinkhas.ac.id/index.php/hrtg/article/view/109>.
- S. Gunawan et al., "Pendampingan produk UMKM di Sukolilo menuju sertifikasi halalan thayyiban," *SEGAWATI, Jurnal Pengabdian Kepada Masyarakat* Vol. 4, No. 1, 2020, <https://doi.org/10.12962/j26139960.v4i1.6446>.
- Susilowati Suparto, Deviana Yuanitasari Djanurdi, and Agus Suwandono, "Harmonisasi Dan Sinkronisasi Pengaturan Kelembagaan Sertifikasi Halal Terkait Perlindungan Konsumen Muslim Indonesia," *Jurnal Mimbar Hukum* Vol. 28, No. 3, 2016.
- S. Sudarmiati, F.K. Anam, and V. Wafaretta, "The Intention of Halal Certification by Micro Business," 2020, 141–155, <https://doi.org/10.18502/kss.v4i9.7322>.
- S.A.F. Silalahi, F. Fachrurazi, and A.M. Fahham, "Factors Affecting Intention to Adopt Halal Practices: Case Study of Indonesian Small and Medium Enterprises," *Journal of Islamic Marketing*, 2021, <https://doi.org/10.1108/JIMA-05-2020-0152>.
- Suhri Hanafi and Muhammad Syarif NURDIN, "Halal Certification in Used Goods Products in the Perspective of Islamic Law. *Ulul Albab: Jurnal Studi Dan Penelitian Hukum Islam* Vol. 5, No. 1, January 2022, <https://doi.org/10.30659/jua.v5i1.16051>.
- R.T.P. Ningrum, "Problematika Kewajiban Sertifikasi Halal bagi Pelaku Usaha Mikro dan Kecil (UMK)," di Kabupaten Madiun Muslim di Indonesia memiliki potensi bagi Pelaku Usaha Mikro dan Kecil yang mengako," *Istithmar : Jurnal Studi Ekonomi Syariah* Vol. 6, No. 7, 2022.
- Z.E. Fitri and Mardiah, "Kajian Sertifikasi Halal Gratis (Sehati) Dengan Skema Self Declare Pada UMKM Dapur Mimi," *Jurnal Ilmiah Pangan Halal* Vol. 5, No. 1, 2023, <https://doi.org/10.30997/jjph.v5i1.9996>.

#### **Other Sources**

- Badan Pusat Statistik, "Survei Sosial Ekonomi Nasional 2015–2019" (Statistics Indonesia, 2019).
- K. Azali, *Indonesia's divided digital economy* (ISEAS Yusof Ishak Institute, 2017).