

Halal certification digital transformation in the triggering of product competitiveness in the global halal market

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Abstract

Digital transformation of the Indonesian halal certification services through SIHALAL application is expected to improve the halal ecosystem and elevating competitiveness of certified products globally. Therefore, this study investigated SIHALAL mechanism, serving as a database for halal industry stakeholders, and explored its role in promoting the ecosystem. An assessment was conducted on the global competitiveness of halal products, using data obtained from Halal Product Assurance Organizing Agency of the Ministry of Religious Affairs. The results showed that SIHALAL application predominantly centered on the need for halal products certification. Only 0.5% of certified products showed the global competitiveness, constituting 6.5% of the total products. The number of domestic products oriented to the international market that have halal certificates is greater than abroad. The study advocated for the expansion of SIHALAL to comprehensively support halal industry ecosystem and global competitiveness. This incorporated the use of an integrated database for policy references, enabling relevant institutions to enhance competitiveness of industry stakeholders in the global halal market.

Keywords

Halal market, Halal certification, Digital transformation

Introduction

Halal products, considered permissible under Islamic law, are integral to adhering to Islamic dietary principles, with Muslims advised to exclusively consume halal and whole some items. Within this framework, Indonesia has instituted regulations to ascertain the halal status of product, thereby guaranteeing the comfort, safety, and widespread availability of such products to the public. Legal confirmation was secured through Halal Certificate, including activities from material supply to products presentation. Despite the importance of certification, many Small and Medium Enterprises (SMEs) lack this

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validation [1], with decisions often unaffected by religiosity or producer knowledge [2]. The reluctance to pursue halal certification typically arises from perceived complexities and costs [3].

The substantial budgetary requirements of the government pose a challenge to halal certification programs [4]. To address the challenge, digital transformation is expected to enhance cost efficiency, improve government service accessibility, and expedite certificate management processes [5]. In Indonesia, the web-based SIHALAL application spearheads digital transformation of halal certification services, in line with the objectives of the 2020 Job Creation Law. According to the public information available on <https://bpjph.halal.go.id/> in October 2023, the application serves as a collaborative effort incorporating 198 Halal Inspection Agencies (LPH) from both government and community sectors, supported by 536 halal auditors, 70,629 Halal Product Process Assistants (PPH), and 221 Halal Product Process Assistance Agencies (LP3H).

The application streamlines the registration of halal certification through two schemes, including regular and self-declare. The regular scheme, designed for products requiring testing, incorporates examination and/or testing of halal status by LPH. On the other hand, the self-declare scheme empowers micro and small businesses to declare halal status of their products. This pathway should be subjected to specific criteria, including guidance from a registered PPH and approval from the MUI Fatwa Commission. The criteria for the self-declare route comprise non-risky products, the use of halal-certified materials and production processes, and the commitment to simplicity.

The registration of halal products certificate extends beyond obligation because it also serves as a strategic move to enhance business competitiveness and expand market share. According to the Global Islamic Economic Indicators 2022 by Dinar Standard, Indonesia ranks fourth in halal industry and second in halal food segment, trailing only behind Malaysia. The country also secures the third position in the modest fashion industry after the UAE and Turkey and ranks ninth in the Pharma and Cosmetic sector. With a focus on halal product certification, Indonesian businesses aim to capitalize on the expanding global market, projected to witness a consumer spending increase of \$2.8 trillion by 2025, featuring an average growth rate of 7.5% Cumulative Annual Growth Rate [6]. To facilitate the entry of businesses into the global market, digital transformation of halal certification in Indonesia is expected to play a crucial role. Building on the aforementioned context, this study scrutinizes SIHALAL mechanism as a database system for halal industry stakeholders, with the aim of fostering the ecosystem. It also evaluates the ownership of halal certificates that have successfully penetrated the global market and explores how products from abroad enter the Indonesian market through certification ownership. The study endeavors to provide valuable recommendations for advancing halal industry in the country, particularly by advocating for an optimized and digitized products registration system.

Methods

The study data were sourced from BPJPH of the Ministry of Religious Affairs, and drawn from publications available on the Halal Product Assurance Organizing Agency or Badan Penyelenggara Jaminan Produk Halal (BPJPH) website up to October 22, 2023. The collected data covered halal certification details, including the number of certified halal products, halal certificates categorized by the registering country, and market share of certified products. The methodology incorporated determining the number of certified halal products in the global market through a comparative analysis. The comparison comprised assessing the number of products certified based on the global market and contrasting it with those from abroad certified in Indonesia.

Results and Discussion

Halal certification applications could be submitted through *ptsp.halal.go.id* or the Mobile Application Pusaka SuperApps of the Ministry of Religious Affairs, available on the Play Store for Android and the App Store for iOS (see [Figure 1](#)). The stages of certification through self-declare included (a) businesses creating an account and preparing the application, (b) completing data and the application with PPH, (c) PPH checking the completeness of the application data. When the data was incomplete, it was returned to the business but when completed, the application was submitted, (d) businesses submitted halal certification application, (e) PPH provided assistance to businesses (verification and validation of the business statements), (f) BPJPH verified and validated the results of PPH through the system and issued a Document Receipt Letter, (g) the Fatwa Committee received the verified results through the system from BPJPH and held a fatwa session to determine halal status of products, (h) BPJPH received the determination of halal status of products and issued halal certificate, and (i) businesses received halal certificate [7]. The digitization of document requirements was presented in [Table 1](#).



Figure 1. SIHALAL application display

[Table 1](#) shows that several documents required for halal certification registration have been provided on SIHALAL, and are integrated with the Investment Coordinating Board.

Some data has not been integrated, namely the halal supervisor's personal documents, product name, ingredients and production process, and distribution permits. In the future, it is possible to integrate several of these documents with the Directorate General of Intellectual Property of Indonesia for business actors who already have data brand rights for products, names of materials and processes; and distribution permits from relevant institutions.

Table 1. Digitalization of halal certification document requirements

No	Document	Availability
1	Halal certificate application letter	Available at SIHALAL (formed systemically)
2	Legal aspect: Business Registration Number	Filled in SIHALAL (integration with Online Single Submission of the Investment Coordinating Board)
3	Halal supervisor documents Determination of Halal Supervisor Copy of Identity Card Curriculum Vitae	Available at SIHALAL (formed systemically) Uploaded on SIHALAL Filled in at SIHALAL
4	Products name	Filled in at SIHALAL complete with products photos
5	List of ingredients	Filled in at SIHALAL
6	Halal products process	Filled in at SIHALAL in the form of a description of halal products process
7	Distribution permit or Sanitation Hygiene Certificate of Appropriateness (if any)	Uploaded on SIHALAL
8	Halal Product Guarantee System	Available at SIHALAL (formed systemically)
9	An agreement/pledge that contains a statement about halalness of products and that it is used in halal products process	Available at SIHALAL (formed systemically)

Source: BPJPH (2022)

Halal certification registration was not only conducted by LPH LPPOM MUI (Halal Inspection Institute at the Food, Drug, and Cosmetics Study Institute of the Indonesian Ulema Council) but also through other accredited and government-recognized institutions. Out of 198 registered LPHs, only 32 served halal products certification. **Figure 2** presented that 98.6% of successful registrations occurred through three government LPH agencies, including LPH LPPOM MUI (89%), LPH PT SUCOFINDO (6%), and LPH Surveyor Indonesia (4%), with the remaining 1% by other LPH. SIHALAL application was not only exclusive to domestic businesses but also to foreign ones intending to distribute products in Indonesia. Approximately forty-three countries have obtained halal products certificate, competing in halal market. Foreign countries registering their products extended beyond the ASEAN region to include others. Proximity proved not to be a decisive factor in entering halal market of a particular country. In the context of Indonesia, China, South Korea, India, Japan, New Zealand, Australia, Switzerland, France, the USA, Turkey, Belgium, and others have registered their products.

Figure 3 provided insights into the ownership of halal certificates from foreign countries, focusing on those with a minimum of 10 certificates. China has the highest number of halal certificates from the Indonesian government, constituting over 50% of certificates

held by foreign entities. Following China, the countries with halal certificates from the Indonesian government included South Korea, Malaysia, India, and Thailand. Figure 4 presented the number of halal-certified products from foreign countries, where China again secured the top position, followed by Singapore, Malaysia, and India.

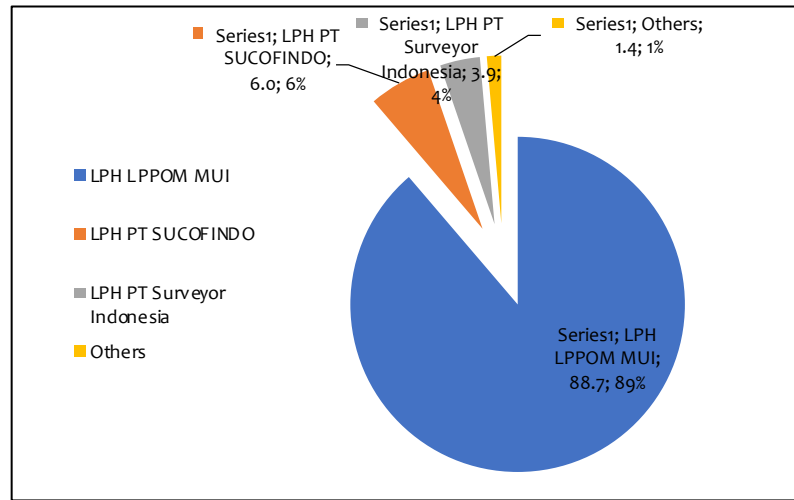


Figure 2. Distribution of business actor registration mechanisms on SIHALAL

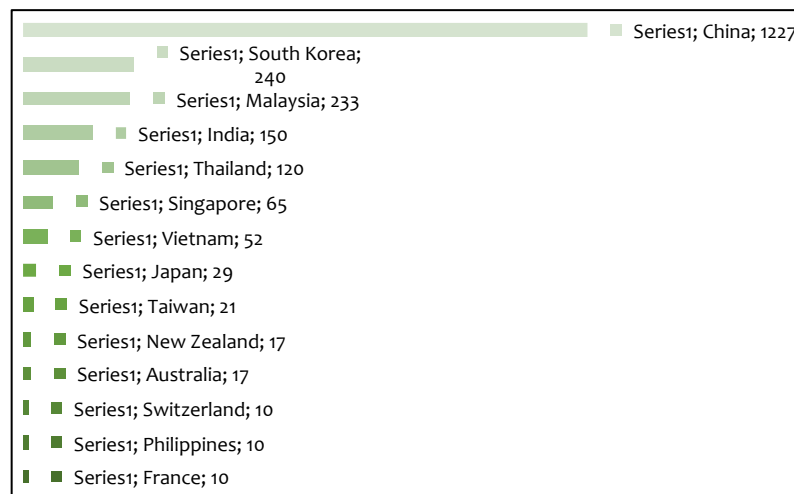


Figure 3. Countries with a minimum of 10 Halal products certificates in Indonesia

Figure 5 presented market share of halal-certified products, with the highest share in local areas, specifically regencies/cities in Indonesia. Regarding products distribution, the number of products marketed nationally surpassed that at the provincial level, constituting 23% at the national scale and 18.9% at the provincial scale. The percentage of halal certificates with the global competitiveness was 0.5% for certificates and 6.5% for products.

Table 2 detailed the number of halal-certified products from Indonesia that entered the global market, reaching a total of 189,496 products from 5,147 halal certificates. It was essential to observe that one halal certificate could cover more than one type of products. In comparison to products and the certificates from other countries, the total number of products certified in Indonesia was 63,975. Therefore, the country had 125,521 globally competitive certified products. This was in line with competitiveness of

halal certificates, where foreign businesses possessed 2,286 certificates, and domestic businesses held 2,861 certificates. Regarding distribution, the number of domestically certified halal products surpassed the number of foreign-certified products. It implied that Indonesia maintained a competitive edge in the global halal market in terms of products quantity.

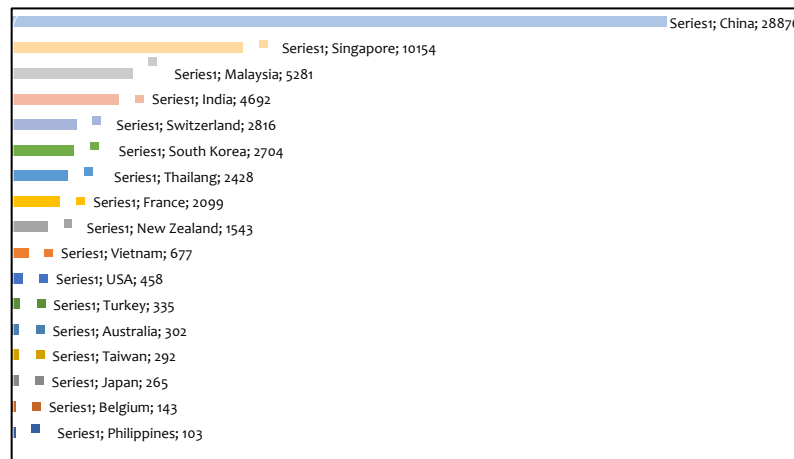


Figure 4. Countries with a minimum of 100 halal-certified products in Indonesia

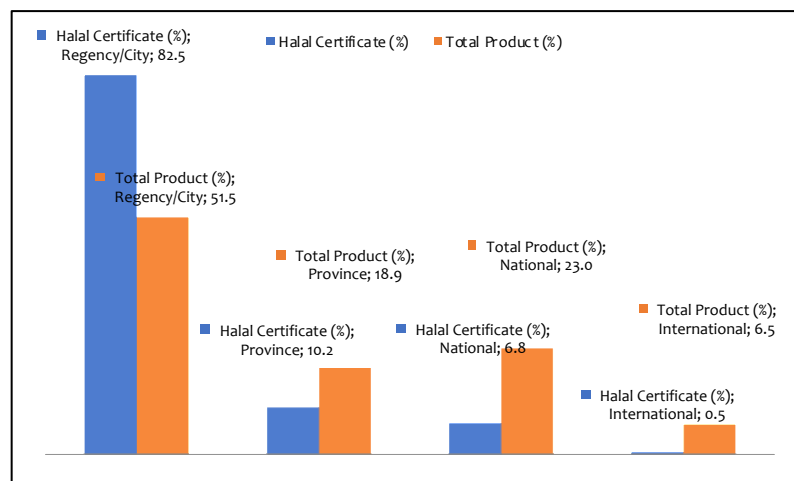


Figure 5. Market share of halal-certified products of BPJPH

Table 2. Number of halal-certified products from Indonesia entering the global market

Proposing Country	Halal Certificates		Halal-Certified Products	
	Σ	%	Σ	%
Foreign	2286	44.41	63975	33.76
Domestic	2861	55.59	125521	66.24
Total	5147	100.00	189496	100.00

Halal certification system played a crucial role in enhancing the access of SMEs to the global market [8][9]. In addition to broadening opportunities, the ownership of halal certification could serve as a motivating factor for consumers to engage with products, depending on the possession of halal products certificate [10][11][12][13][14][15]. Several challenges were encountered in obtaining certification, including (1) a lack of awareness and socialization of halal certification among businesses, (2) the suboptimal role of relevant stakeholders, (3) businesses showing less responsiveness to certification regulations and digital halal services, and (4) the suboptimal assistance in

halal process, coupled with the introduction of parties exploiting halal certification program [16].

Conclusion

SIHALAL served as an important application for halal certification submissions in Indonesia, streamlining the digitization process. This covered in-putting diverse information and documents directly into the system, including application letters, legal aspects, halal supervisor documents, products name, materials and production processes, distribution permits, halal products assurance systems, and agreements/declarations containing statements of products halalness used in halal products process. The predominant concentration of businesses holding halal certificates, both in terms of certificate quantity and product diversity, was at the local level within regencies/cities in Indonesia. Regarding products distribution, the national level is higher or larger than the provincial level. The percentage of halal certificates with the global competitiveness was 0.5% for certificates and 6.5% for products. Moreover, the distribution of domestically certified halal products entering the global market surpassed that of foreign-certified products entering the Indonesian market, implies that Indonesia is superior in the global halal market in terms of the number of products. This research recommends improving SIHALAL in supporting the halal industrial ecosystem and global competitiveness through the addition of an integrated database as a reference for policy by other related institutions in increasing the competitiveness of business actors in the global halal market.

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References

- [1] R. P. Astuti, Armanu, R. Wijayanti, and A. Yuniarinto, "The Halal Certification Essence in Manufacturer's Perspective (A Phenomenology Study)," *Int. J. Prof. Bus. Rev.*, vol. 8, no. 5, 2023, doi: 10.26668/businessreview/2023.v8i5.1851.
- [2] N. Masruroh and M. K. E. Mahendra, "The Relationship Of Religiosity, Producer's Knowledge, and Understanding Of Halal Products to Halal Certification," *Ekon. Syariah J. Econ. Stud.*, vol. 6, no. 2, 2022, doi: 10.30983/es.v6i2.5179.
- [3] H. Oemar, E. Prasetyaningsih, S. Z. A. Bakar, D. Djamaludin, and A. Septiani, "Awareness and intention to register halal certification of micro and small-scale food enterprises," *F1000Research*, vol. 11, 2022, doi: 10.12688/f1000research.75968.2.
- [4] M. Sholeh and A. Mursidi, "Implementation Culture Certified of Halal Food in Indonesia 2023," *El-Hekam*, vol. 8, no. 1, 2023, doi: 10.31958/jeh.v8i1.9525.
- [5] G. A. O. Abusamhadana, K. A. Bakon, and N. F. Elias, "E-Government In Ghana: The Benefits And Challenges," *Asia-Pacific J. Inf. Technol. Multimed.*, vol. 10, no. 01, 2021, doi: 10.17576/apjitm-2021-1001-11.
- [6] Dinar Standard, "State of the Global Islamic Economy Report: Unlocking Opportunity," *State Glob. Islam. Econ. Rep. 2020/21*, pp. 4–202, 2022, [Online]. Available: <https://haladinar.io/hdn/doc/report2018.pdf>

- [7] BPJPH, "SIHALAL Digitalization and Registration (in Bahasa)," pp. 1-40, 2022, https://ptsp.halal.go.id/pelatihan/0-07._Digitalisasi_dan_Registrasi_SIHALAL.pdf
- [8] M. G. Anggarkasih and P. S. Resma, "The Importance of Halal Certification for the Processed Food by SMEs to Increase Export Opportunities," in *E3S Web of Conferences*, 2022, vol. 348. doi: 10.1051/e3sconf/202234800039.
- [9] Warto and Samsuri, "Halal Certification and Its Implications for Halal Product Business in Indonesia," *Al Maal J. Islam. Econ. Bank.*, vol. 2, no. 1, 2020.
- [10] S. R. I. Ginting, S. Sugianto, and R. R. A. Hasibuan, "Effect of Halal Certification, Halal Awareness, Product Quality and Price on Consumer Purchase Interest (Case Study: Mie Ayam Mushroom Haji Mahmud S.)," *J. Ekon. Manajemen, Bisnis dan Akunt. Rev.*, vol. 2, no. 2, 2022, doi: 10.53697/emba.v2i2.1028.
- [11] I. Permadi, "The Role of the State in Ensuring Legal Certainty on the Continuity of Halal Products in Indonesia," *Proc. Malikussaleh Int. Conf. Law, Leg. Stud. Soc. Sci.*, vol. 2, 2022, doi: 10.29103/micolls.v2i.110.
- [12] D. Septiani and A. A. Ridlwan, "The Effects of Halal Certification and Halal Awareness on Purchase Intention of Halal Food Products in Indonesia," *Indones. J. Halal Res.*, vol. 2, no. 2, 2020, doi: 10.15575/ijhar.v2i2.6657.
- [13] E. D. Setyaningsih and S. Marwansyah, "The Effect of Halal Certification and Halal Awareness through Interest in Decisions on Buying Halal Food Products," *Sy'ar Iqtishadi J. Islam. Econ. Financ. Bank.*, vol. 3, no. 1, 2019, doi: 10.35448/jjec.v3i1.5515.
- [14] D. Yener, "The Effects Of Halal Certification And Product Features On Consumer Behavior," *Int. J. Manag. Stud.*, vol. 29, 2022, doi: 10.32890/ijms2022.29.2.5.
- [15] A. Afendi, "The Effect of Halal Certification, Halal Awareness and Product Knowledge on Purchase Decisions for Halal Fashion Products," *J. Digit. Mark. Halal Ind.*, vol. 2, no. 2, 2020, doi: 10.21580/jdmhi.2020.2.2.6160.
- [16] J. Jamaluddin, H. Hidayatulloh, A. Zaini, and S. Sanawi, "The problems of implementing Halal certification through the self-declaration program for MSMEs in Indonesia: A Case Study," *Int. J. Adv. Soc. Econ.*, vol. 4, no. 1, 2022, doi: 10.33122/ijase.v4i1.221.