From Tokyo to Manila: The adaptation of halal Japan application system in promoting halal awareness in the Philippines

Eko Ruddy Cahyadi[1], Revina Novri Azahra[1,*], Haikal Fabian[1], Putri Latisya[2]

[1]Faculty of Economics and Management, IPB University, Jl. Agatis, Dramaga Campus IPB, Bogor, West Java, 16680, Indonesia
[2]Faculty of Mathematics and Natural Sciences, IPB University, Jl. Agatis, Dramaga Campus IPB, Bogor, West Java, 16680, Indonesia

A B S T R A C T

The adaptation of the Halal Japan Application System is able to serve as a model to promote halal awareness in the Philippines. This is because the country has a Muslim minority and significant potential for the growth of the halal industry. The concept of Halal, derived from Islamic teachings, covers more than dietary restrictions by influencing lifestyle choices and consumer behavior across diverse sectors, including food, cosmetics, and tourism. Therefore, this research aimed to discuss the challenges and opportunities within the halal certification landscape in both Japan and the Philippines. The trend is associated with the persistence of issues such as the lack of a centralized regulatory body and varying standards among certifying agencies in Japan despite the advancements in halal certification since 2010 and the development of the Halal Japan app. Meanwhile, the Philippines faces infrastructural and awareness challenges in its burgeoning halal sector. The implementation of a similar halal app could bridge these gaps, enhancing accessibility and reliability for local and international Muslim communities. This comparison showed the need to improve the certification processes and community engagement strategies to establish the Philippines as a key player in the global halal market in order to foster economic growth and cultural integration.

ARTICLE INFO

1 Introduction

Halal is a word that originates from Arabic and is interpreted as "ibadah" or products permitted to be consumed according to Islamic teachings. This is because the legal basis for the consumption of a product by Muslims is the Islamic law sourced from the Quran, Hadith, and Ijtihad (consensus of scholars). In contemporary developments, the halal concept has extended beyond Muslim communities to non-Muslims due to the widespread application for foods and beverages as well as several products such as medicines, cosmetics, hotels, tourism, and others.

Every action of Muslims is expected to be based on worship, which is devotion to God Almighty, as mentioned in the Quran (Adz-Dzariyat: 56). An example is the adherence of eating to Sharia rules and guidelines based on the emphasis of the Quran that food needs to be halal and good, as reflected in several verses pairing the words "halal" and "good" such as (an-Nahl: 114) "Eat of what Allah has provided for you, what is good and lawful, and be thankful for the grace of God if you worship Him" (an-Nahl: 114). Moreover, the terms "halal" and "haram" are widely used with one observed to be related to food. Both concepts originate from Arabic where halal is interpreted as justified or permitted while haram is "not justified or prohibited" (Ridho *et al.* 2021). Products certified as halal can assist consumers in leading longer and better lives. Lifestyle is part of the main elements of halal and has become a global concern that focuses more on how a person lives. According to Yusuf al-Qaradhawi, haram is something Allah forbids with a confirmed prohibition, and engagement in such acts can lead to a denial from God in the hereafter (Farid & Basri 2020).

Agrifood is a concept formed by combining two original words, agriculture and food. According to a study by Ménard & Valceschin (2005), the agrifood sector integrates both agricultural and food industries with a focus on transforming raw agricultural products into food items, ensuring safety, quality, and sustainability across the supply chain. The concept is established on the effort to produce food through agriculture instead of hunting, fishing, harvesting, and others, leading to the designation as an agricultural product. The trend shows that the agricultural-based food sector or agrifood is related to commercial food production through agriculture. Moreover, the Halal Agrifood system is a framework associated with the development of an industry that processes raw agricultural materials into finished products in accordance with Islamic law. The purpose is to ensure all activities and raw materials comply with Halal principles.

The trend is observed in the halal farming system which includes both food crops and livestock. According to Sharia, people are required to consume food and drinks considered Halal and Tayyib (good). This quality needs to be interpreted holistically which extends beyond the slaughtering process to the focus on the welfare of the animal, starting from the moment it is caught to feeding, cleaning the cage, the slaughterhouse, distribution, and sale (Rahman *et al.* 2024). This shows the difference between Halal and Tayyib standards where quality is only determined based on human rules.

Over the past two decades, halal food has evolved from a niche market for Muslim consumers to a dynamic global phenomenon. There are also indications that halal food can play a significant role in global trade in the near future. Traditionally, halal only refers to meat and poultry with a special focus on the slaughter method. More recently, the concept has also been applied to non-meat foods such as dairy products, baked goods, snacks, confectionery, ready-to-eat, and other processed foods and beverages. The aspects of storage, transportation, and logistics are also expected to play a role in maintaining and demonstrating halal integrity. This is necessary because halal is a farm-to-table process requiring compliance with the concept throughout the supply chain.

2 Halal Issues in Muslim Minority Countries

Halal issues have been mushrooming in Muslim minority countries around the world such as Japan which is part of those in Asia. Japan is a secular nation that separates religious and national issues. The first Muslim community in the country was recorded in the wake of the Bolshevik Revolution which led to the arrival of several hundred Turko-Tatar Muslims from Central Asia. Recent observations showed an increasing Muslim

---

civilization in Japan with the number recorded to have become more than doubled in the past decade, from 110,000 in 2010 to 230,000 at the end of 2019, including 50,000 Japanese converts based on the information presented by Tanada Hirofumi of Waseda University (The Economist 2019). Halal food, such as meat, chicken, and other foods are difficult to access in Japan despite the increasing demand from Muslims, both locals and tourists, even though the "Global Halal Industry" is gaining momentum annually. It is also observed that consumers are presently expanding the concept beyond food to everything related to daily life, including pharmaceuticals, supplements, cosmetics, clothing, tourism, and finance.

3 Halal Certification and Japan App

Japan started halal certification in 2010 through the establishment of the Japan Halal Association, a non-profit certification body based in Osaka. However, the country does not have a standard for halal assurance or regulation. This is in line with the observation of previous research that the lack of a global standard poses a significant obstacle to the development of the halal industry (Hasnan & Kohda 2023), forming part of the challenges in determining halal food. Moreover, in Japan, there is no specific Islamic judicial council and/or fatwa committee to inspect every process of halal certification. The issuance of halal certification to food is based on fatwa collected from other countries, positive list materials, and critical raw materials.

The Halal Japan application, an innovation by a group of religious scholars and PhD holders in medical and chemical departments, represents a significant advancement in determining the needs of Muslim consumers in Japan. This app provides a comprehensive platform where users can easily access information about halal-certified products, restaurants, and services throughout Japan. It is designed to collect most halal food information based on three categories, including halal, doubtful, and haram in addition to different levels of halal certification such as Halal LV1, LV2, LV3, Doubtful, Haram LV1, and Haram LV2 with the respective meanings (Halal Japan 2024).

3.1 HALAL LV1 – Certified Halal

Halal LV1 represents the highest standard of halal certification and shows the product does not contain prohibited ingredients, such as pork or alcohol. It also shows that the production process meets halal requirements. Products with this certification fully comply with Islamic dietary laws and offer confidence to Muslim consumers about their halal status.

3.2 HALAL LV2 – Ethanol-Free and Pig-Derivative-Free Production

Halal LV2 certification is another level that confirms the product is entirely free from ethanol and the production line does not contain any pig-based materials. This level caters to consumers that prioritize the complete exclusion of alcohol and want assurance without risk of contamination from non-halal sources. LV2 products are strictly compliant with halal standards regarding alcohol and pig derivatives.

3.3 HALAL LV3 – Minimal Ethanol or Shared Production Line

Halal LV3 is a more flexible certification, allowing for products that contain less than 0.5% ethanol or are produced on a line shared with products containing pig derivatives. It is also in line with and supported by MUI Fatwa No. 10 of 2018 concerning Food and Beverages Containing Alcohol (MUI 2018). However, the production line is rigorously cleaned to prevent any contamination. This certification is not as stringent as LV1 or LV2 but qualifies products as halal, particularly when ethanol content is very low and thorough cleaning protocols are implemented.

3.4 DOUBTFUL – Uncertain Ingredients or Alcohol Content

The Doubtful category includes products associated with the lack of clarity about the type or concentration of alcohol used by the manufacturer or ingredients such as margarine, emulsifiers, or shortening obtained from questionable sources. The inability to disclose the origin of these ingredients can lead to some difficulty for the consumers in determining the compliance of the products with halal standards. This can further cause the avoidance of the products in the category unless more information is provided.

3.5 HARAM LV1 – Contains Pig or Non-Halal Ingredients

Haram LV1 shows that the products contain ingredients explicitly forbidden in Islam, such as pig-derived substances, non-halal animals, alcohol, or mirin. Products categorized in this classification are considered entirely haram and are prohibited for Muslim consumers due to the presence of non-halal substances.

3.6 HARAM LV2 – Contaminated Production Line

Haram LV2 applies to the products that can be produced using halal ingredients but passed through a production line contaminated with pig derivatives or other haram substances. Even though the ingredients are halal, the risk of cross-contamination renders the product unsuitable for consumption by Muslims.

4 Subscription Plans for The Halal Japan App

Different levels of halal certification provide both consumers and producers with clear guidelines. From fully certified halal products (LV1) to those with questionable or prohibited content such as Doubtful and Haram, these distinctions assist Muslim consumers make informed choices while encouraging manufacturers to maintain transparency and uphold halal standards. The Halal Japan App provides various subscription plans to suit different user needs, including those living in Japan for the long term or just visiting.

a. 1 Month: ¥150 – A great choice for short-term visitors that need quick and temporary access to halal product information.
b. 3 Months: ¥400 – Suitable for those staying a bit longer, such as exchange students or temporary workers that need access over several months.
c. 6 Months: ¥800 – Designed for extended visits, offering a reliable solution for half a year.
d. 1 Year: ¥1,300 – Ideal for residents or frequent travelers to Japan that require year-round access to halal product details. The auto-renewal feature also ensures uninterrupted service.

Subscriptions renew automatically 24 hours before the current period ends and are billed via the App Store. This ensures an easy process for the users to maintain continuous access to updated halal information.

Despite being relatively small, the population of Muslims in Japan has been growing rapidly in recent years, leading to an increasing demand for information due to the arrival of more Muslim residents, temporary workers, and tourists. Therefore, Halal Japan launched the Halal and Muslim-friendly product identifier currently containing more than 25,750 products. The app can assist Muslim tourists and residents in navigating the challenges of finding halal food options in order to ensure their dietary practices are in line with Islamic principles. The products certified by JHA and those considered Muslim-friendly are presented based on the positive list material or haram food. The app promotes the standardization and reliability of halal certification in Japan, addressing the diverse needs of both domestic and international Muslim communities. As a technological solution, the app supports the growing demand for halal products and also bridges cultural gaps to foster a more accommodating environment for Muslims in Japan.

5 Halal Industry in The Philippines

Another country with a minority Muslim population is the Philippines considering the fact that most of the residents are Christians. The population of Muslims in the country was approximated at 6% according to the report of the Philippine Statistics Authority (PSA 2022). The government plans to attract investment and strengthen the halal food industry in both domestic and export trade but there are serious gaps requiring legislative action. Moreover, the idea of halal certification is growing in the Philippines, especially in the food and beverage industry. This is observed from the establishment of guidelines and standards through agencies such as the National Commission on Muslim Filipinos (NCMF). However, there is limited awareness and understanding of these standards, especially among businesses outside the Bangsamoro Autonomous Region in Muslim Mindanao (BARMM).

The halal industry in the Philippines is observed to be very slow-moving due to several challenges. This further influences the efforts to ensure different halal-certified products and services remain "halal". The absence of regulations or sanctions required for HCB has allowed the process of certification from the NCMF and/or the Philippine Halal Council, chaired by the DTI Secretary to be voluntary. Halal certification bodies can practice in accordance with the rules and regulation as well as guidelines set while some such as IDCP adopt the standards of other ASEAN countries, including Malaysia and LPPOM MUI. Furthermore, there is no National Fatwa Committee which leads to the debate of any case or matter relating to halal at the Shariah committee selected by the Ulama Council or any halal certification authority (Othman *et al.* 2016).

6 Philippine Halal System and Challenges

The Philippine halal system is overseen by different government agencies, including the NCMF and the Department of Trade and Industry (DTI). This system has been shaped significantly by the Philippine Halal Export and Promotion Act of 2016 as an important step in developing the industry and certification processes in the country (de Castro *et al.* 2021). The establishment of halal certification standards has been important in promoting firm internationalization and providing access to global markets, enabling local companies to compete more effectively on the world stage (Dubé *et al.* 2016).

A key player in this system is the Philippine Accreditation Bureau (PAB), also under the DTI, which is responsible for accrediting halal certification

bodies in the country. The PAB ensures that the bodies meet rigorous international standards considered essential for maintaining the credibility of halal certifications issued. This accreditation is critical in assuring international buyers and markets of the quality and authenticity of Philippine halal products, further supporting the internationalization of local firms.

The NCMF is another important agency in accrediting entities willing to become halal certification bodies by ensuring compliance with Islamic law and standards. This accreditation allows these bodies to issue halal certifications and use the halal mark, thereby assisting to regulate and standardize the industry within the country. However, the halal system faces several challenges related to quality assurance and compliance with international standards (de Castro *et al.* 2021). These challenges are compounded by the limited awareness and education about halal standards among producers and consumers. The halal food industry is developing in the country but the awareness and availability of halal products remain limited compared to Muslim-majority countries despite promotional efforts (Nayeem 2020).

Muslim consumers in the Philippines have shown a strong intention to purchase halal products, influenced by factors such as subjective norms and Islamic religiosity (Acas & Loanzon 2020). The food demands of these consumers have changed considerably and are particular about the type of food to consume. There is a need for assurance that the food cannot harm their health but rather improve the mental state and quality of life. A major concern identified for the Muslims was the difficulty in finding halal restaurants and this led to an evaluative study of the practices and challenges of internationally and nationally certified as well as non-certified halal restaurants in the selected cities of metro Manila (Liba 2022). Moreover, the impact of halal certification extends beyond consumer preferences due to the report of the positive influence of the concept on the innovative and market performance of certified companies by supporting growth and success in the competitive market (Salindal 2019).

7   Comparing The Halal Sector of Japan and The Philippines

Despite being a non-Muslim-majority country, Japan has shown significant interest in developing the halal industry as part of a broader strategy to boost its economy and attract Muslim tourists (Konety *et al.* 2021). The halal system, although relatively new, is characterized by a meticulous approach to certification with strong compliance with global standards. However, challenges were identified in relation to the absence of a centralized government body to oversee halal certification and the existence of varying standards among different agencies (Hasnan 2023). Despite these challenges, Japan has made considerable strides in supporting halal tourism, offering adequate Islamic facilities, and promoting halal products through food diplomacy strategies (Deniar & Effendi 2019).

A contrasting trend was identified with the Philippine halal system which was observed to be growing and experiencing significant challenges related to infrastructure, awareness, and consistency in enforcement. The country is in the process of fully integrating halal standards into its domestic market, with ongoing efforts to improve certification processes and comply more with international standards. The system implemented by Japan benefits from a clear focus on catering to the international market, particularly in attracting Muslim tourists. Meanwhile, the Philippines is still working on increasing public awareness and building the necessary infrastructure to support a robust halal industry. Comparatively, Japan and some ASEAN countries such as Singapore have superior values in the halal industry sector, with well-established practices that support halal tourism and the availability of Islamic facilities (Lubis *et al.* 2022). These countries have effectively utilized the halal systems to promote economic growth and international cooperation. However, the Philippines needs to address the challenges identified to achieve a similar level of development in its halal industry.

8   Implementing A Halal App in Japan and the Philippines

The implementation of an app such as the one in Japan can assist the Philippines in significantly enhancing the halal industry, catering to both local and international Muslim communities. However, this requires several steps which start through a collaboration with local halal certification bodies such as the NCMF and the DTI. These bodies can provide the necessary data and ensure that the information provided by the app is accurate and comprehensive. The development of a robust database for halal-certified products, restaurants, and services is also important with regular updates to reflect any changes in certification status or new product entries.

A user-friendly interface is vital for the success of the app by allowing users to search for products easily, scan barcodes for instant verification, provide a summary on the "halalness" of the product scanned, and find nearby halal restaurants. Moreover, community engagement features, where users can report non-halal products or suggest new ones, can assist in keeping the app up-to-date and relevant.

Marketing and awareness campaigns are necessary to promote the app and ensure widespread adoption. Another important aspect is

addressing bureaucratic and policy issues because the Philippines currently faces challenges such as fragmented regulatory oversight and legislative gaps in its Halal system. Streamlining the accreditation process, unifying the efforts of different certification bodies, and ensuring policies are implemented to support the development and maintenance of the app are essential steps. This can be achieved by creating a centralized regulatory body to oversee halal certification and working closely with stakeholders to harmonize standards and procedures. By addressing these challenges and leveraging technology, the Philippines can provide a more cohesive and efficient halal system. Implementing a platform similar to the Halal Japan App is expected to enhance the accessibility and reliability of halal options as well as position the Philippines as a leading destination for halal tourism and trade.

The implementation of a similar app is both possible and relatively easy due to the simplicity of the technology associated with the process. The core functionalities, such as barcode scanning for halal verification, a searchable database of halal-certified products, and geolocation services to find nearby halal restaurants, are not highly complex and can be developed using existing technological platforms. From a technological and programming standpoint, development is relatively easy due to the availability of modern software development tools, frameworks, and cloud-based infrastructure. Mobile app development frameworks such as React Native, Flutter, and Ionic allow developers to build cross-platform applications that work seamlessly on both iOS and Android devices using a single codebase to significantly reduce development time and cost (You & Hu 2021). Moreover, features such as barcode scanning, geolocation, and database management can be implemented with readily available software libraries and APIs, such as Google Maps API for location services or Firebase for cloud-based data storage and real-time updates. This innovation can work in line with the plans of the government to raise 230 billion pesos ($4 billion) in investments and generate approximately 120,000 jobs in the next four to five years in the hopes of tapping into the global halal market, which is estimated to be worth more than $7 trillion. Moreover, the market currently presents a trillion-dollar opportunity and the Philippines is uniquely positioned in the Asia-Pacific region to capture the potential (DTI 2024). This shows that the Philippines can boost the halal industry, support Muslim communities, and position itself as a key player in the global halal market by leveraging technology and following the model implemented in Japan.

9   Conclusions

In conclusion, the global halal industry was observed to have evolved into a dynamic market that transcended cultural and religious boundaries, driven by increasing consumer demand and the expansion of halal-certified products beyond food. Despite being a Muslim-minority country, Japan had effectively positioned itself as a leader in this sector through meticulous certification processes and innovative technological solutions such as the Halal Japan app. This approach enabled the country to cater to both Muslim residents and tourists, leading to the preferred destination for halal tourism and trade. Meanwhile, the Philippines was observed to be in the process of developing the halal industry and facing significant challenges related to infrastructure, awareness, and regulatory consistency. The market could also be enhanced by adopting strategies similar to those implemented in Japan such as a comprehensive halal app and streamlining certification processes. This would ensure the needs of local and international Muslim communities were satisfied while positioning the country as a competitive player in the global halal industry.

The halal industry presented a growing opportunity for economic development, cultural integration, and global trade. Japan already established itself as a leader in this sector through meticulous certification processes and technological advancements but the Philippines was navigating the challenges of developing a robust halal system. By learning from the experience of Japan and addressing its own infrastructural and regulatory issues, the Philippines could also develop a more cohesive and efficient halal industry.

Conflict of Interest

The authors declare no conflict of interest.

References

Acas SS, Loanzon JIV. Determinants of halal food purchase intention among Filipino Muslims in Metro Manila. Arabian Journal of Business and Management Review. 2020;10(3):1–7.

de   Castro MM, Mariano RA, Nuñez CL, Legaspi AP. Philippine halal food export industry: life cycle, trends, and global outlook. E3S Web of Conferences. 2021.

Deniar   SM, Effendi TD. Halal food diplomacy in Japan and South Korea. Journal of Social and Political Sciences. 2019;2(3):804–813.

[DTI] Department of Trade and Industry. DTI Secretary Pascual highlights Philippines' halal market potential in key stakeholders forum. 2024.

Dubé   FN, HaiJuan Y, Lijun H. Halal certification system as a key determinant of firm internationalisation in the Philippines and Malaysia. Asian Academy of Management Journal. 2016;21(1).

Farid   M, Basri H. The effects of haram food on human emotional and spiritual intelligence levels. Indonesian Journal of Halal Research. 2020;2(1):21–26.

Halal Japan. Halal Japan App. Versi 3.0. [Mobile Application]. 2024.

Hasnan N, Kohda Y. Halal supply chain: challenges of halal certification in Japan. European Proceedings of Social and Behavioural Sciences. 2023.

Konety N, Aditiany S, Nidatya N. Japan's rational choice in developing the halal industry. MIMBAR: Jurnal Sosial dan Pembangunan. 2021;37(1):187–198.

Liba RT. Practices and challenges of halal restaurants in Metro Manila. Journal of Tourism Research & Hospitality. 2022;11(8):1–13.

Lubis FRA, RGP MA, Yuandita R. Comparative study of the potential of the halal industry in developed countries vs developing countries. ARBITRASE: Journal of Economics and Accounting. 2022;3(1):95–102.

[MUI] Majelis Ulama Indonesia. Lampiran Fatwa MUI No. 10 Tahun 2018 tentang Makanan dan Minuman Mengandung Alkohol. 2018.

Ménard C, Valceschini E. New institutions for governing the agrifood industry. European Review of Agricultural Economics. 2005;32(3):421–440.

Nayeem AR. Halal food awareness of young adult Muslim consumers: Comparative study between Bangladesh and Philippines. Global Journal of Management and Business Research: E-Marketing. 2018;18(7):1–10.

Othman B, Shaarani SM, Bahron A. The potential of ASEAN in halal certification implementation: A review. Pertanika Journal of Social Sciences and Humanities. 2016;24(1):1–24.

[PSA] Philippine Statistics Authority. Religious affiliation in the Philippines: 2020 Census of Population and Housing. 2022.

Rahman MM, Razmini MSA, Ariffin AS, Hashim N. Navigating moral landscape: Islamic ethical choices and sustainability in halal meat production and consumption. Discover Sustainability. 2024;5(225).

Ridho M, Anggarini A, Oktaviani Y. Halal and haram food in Islam: Science perspective. El-Faqih: Jurnal Pemikiran dan Hukum Islam. 2021;7(2):125–142.

Salindal NA. Halal certification compliance and its effects on companies' innovative and market performance. Journal of Islamic Marketing. 2019;10(2):589–605.

The Economist. The number of Muslims in Japan is growing fast. 2019.

You D, Hu M. A comparative study of cross-platform mobile application development. International Journal of Computer Applications. 2021;177(38):1–8.