

ICMC 2023**The 3rd International Conference on Management and Communication****HALAL SUPPLY CHAIN: CHALLENGES OF HALAL
CERTIFICATION IN JAPAN**

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Abstract

Following to the significant growth of the Muslim population and Muslim-friendly tourism in Japan, halal products and services have gradually been accepted and popular in the Japanese market. Clearly, firms from Muslim and non-Muslim backgrounds have united and developed a plan to participate in the halal supply chain paradigm. This favourable circumstance has increased demand for halal certification. With the halal certification, Japanese companies would be able to gain access to the Islamic market and demonstrate the company's high transparency and safety standards. However, unlike in Muslim-dominant countries such as Malaysia and Indonesia, there is no such governmental body and no approval system in Japan that makes the certification process, which can be complicated and costly. There are more than 30 halal certification bodies (HCBs) in Japan. The standards of Halal certification will vary depending on the certification body that grants the certification. While there are vast opportunities to explore, there are also numerous challenges faced by the halal players in Japan. This drives this paper's investigation of the halal industry's growth and the difficulties in running a halal supply chain. Based on in-depth interviews with a number of HCBs in Tokyo and Osaka, this study offered insightful information about the state of the halal supply chain in Japan at the time. It is believed that this paper would increase knowledge of the halal business, foster a better understanding of it, and suggest steps Japan may take to make its halal supply chain more sustainable.

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1. Introduction

It is widely known that halal products and services are necessities for Muslims. Especially when living in Muslim-minorities countries, Muslim consumers will be more “halal-conscious” and highly selective to choose only “halal” (“lawful, permissible”) and “thoyyiban” (“wholesome”) in choosing products and services. The best way is by identifying the authentic halal logo on the products or displayed on the service provider’s premises. Concerns include the accessibility and availability of these halal goods and services in addition to the search for halal assurance. The management of the full set of production, distribution, and marketing activities necessary to deliver "halal" and "thoyyiban" to clients is crucial in this context, according to Khan et al. (2018). In addition to dealing with authorised and banned things, the HSC also ensures that products are halal from when they are manufactured until consumed (Soon et al., 2017). Hence, halal certification is an important tool to ensure that the products throughout the supply chains are truly halal, safe and clean (Othman et al., 2016). In other words, halal certification is inseparable from the HSC. With the halal certification, Muslims are confident that their consumable food and services are absolutely permissible.

Meanwhile, from a business perspective, halal certification allows companies to gain access to the Islamic market and demonstrate the company’s high transparency and safety standards. The growing awareness of halal goods and services, which stand for cleanliness, safety, and environmental friendliness (Aziz & Chok, 2013; Gayatri & Chew, 2013; Ziegler et al., 2022) has also raised the demand for halal goods among non-Muslim consumers. This has broadened the halal market target customers, and consequently, provide more business opportunities to be ventured domestically and globally. However, in Japan, even though there is increased awareness among the locals about halal and an increasing number of Muslims either from the Japanese population or the inbound tourist, the availability of halal products is still limited (Kitayama et al., 2018) and only focused in major cities namely Tokyo and Osaka. The absence of involvement in the halal certification system is unavoidably caused by a number of probable variables that come from diverse supply chain segments. Determining recommendations for a more sustainable halal supply chain in Japan is the purpose of this research, which also aims to investigate variables that pose obstacles to the halal certification of goods and services.

2. Literature Review

2.1. Halal supply chain

The early publications of HSC concentrated more on defining the terms and parts. Halal certification was used by Noordin et al. (2009) to highlight the control of the value chain for halal products. The ideas of HSC treatment were championed by other researchers, including Tieman (2007, 2009, 2011), Omar and Jaafar (2011), Tieman et al. (2012), who served as a crucial source for subsequent HSC investigations.

Basically, to prevent contamination and preserve a product's halal integrity, the HSC system employs a series of management processes that are carried out at various points throughout the supply chain (Ngah et al., 2015; Sentia et al., 2022). Nugroho et al. (2018) claim that HSC is stricter than

traditional supply chain management (SCM) in terms of preserving the product flow from the production stage all the way through to the distribution stage. SCM aims at maximizing responsiveness and efficiency in supplying a particular market. Meanwhile, HSCM safeguards Islamic Syariah Law by facilitating the production of halal consumables and ensuring their distribution to customers (Indarti et al., 2020; Osman & Aziz, 2018). The conventional supply chain focuses on increasing revenues and profit. The goal of HSC, in contrast, is primarily focused on maintaining the quality of halal food and guaranteeing that the final product is both halal and thoyyib (Indarti et al., 2020; Ngah et al., 2015; Tieman, 2011). In other words, all components of the goods or services must be legal, and all operations must be carried out in accordance with Syariah law.

Even though research in HSC is considered in the development stage (Indarti et al., 2020; Khan et al., 2018), an evolving enthusiasm and growing research interest exist in HSCM. The number of halal publications that concentrate on conducting in-depth research on particular fields, such as the halal food supply chain (Azmi et al., 2018; Zulfakar et al., 2012) and halal cosmetic supply chain (Annabi & Ibdapao-Obe, 2017; Mohammadian et al., 2015), has increased in recent years. Parallel to the complexities of the SCM environment, HSCM has to cope with fierce global competition, short life cycle products and high customer expectations. This has necessitated more research to improve the performance of HSCM. Hassan et al. (2016) argued that the efficiency and success of HSCM may be improved by integrating halal-related elements including certifying authorities, vendors, and operations and logistics. As such, recent literature on HSCM has given attention to the four main activities, namely halal procurement (Shari et al., 2021; Tieman et al., 2020), halal manufacturing (Mohamed et al., 2016; Samsudin & Dani, 2022), halal distribution and halal logistics (Susanty et al., 2023; Tan et al., 2012; Zailani et al., 2017).

2.2. Halal industry in Japan

The halal industry has actually grown beyond the food industry to include non-food items including cosmetics, medications, and services (such as finance, tourism, and others) that adhere to Islamic law. Nevertheless, halal food in Japan is highly appealing and significant especially after the pandemic covid 19 subsides. The halal food industry, historically, was initiated to serve the small number of Muslims living in Japan (Yamaguchi, 2019). Even though Muslims still remain a minority, it can be seen that the numbers have rapidly increased to more than doubled in the past decade, from 110,000 in 2010 to 226,941 in 2020, representing 0.2% of the total population in Japan (National Profile, 2023). Additionally, Japan's tolerance of different religions plus its strong culture and values of "*omotenashi*" ("*wholeheartedly look after guests*") (Yamaguchi, 2019), have attracted many Muslims around the world to visit Japan. In conjunction with the Tokyo Olympics 2020, demand for halal and Muslim-friendly tourism-related goods and services was at an all-time high. However, many halal businesses have been negatively impacted since the covid 19 outbreak. Several restaurants and hotels that served Muslim-friendly services and halal products have been closed or even if it continues, may only provide a limited halal menu due to the declining numbers of Muslim tourists (Sofyan et al., 2022). Nonetheless, after the government lifted up the travel ban in October 2022, and relaxed its border control measures, a faster recovery in the tourism sector was observed (The Japan Times, Nov. 13, 2022). As tourism in many cities has rebound strongly and surpassed their previous tourism revenues before the pandemic, it is expected

that halal and Muslim-friendly tourism in Japan will continue to grow and contribute benefits to the country. It appears that the growth of halal products, notably in the food business in Japan, has been spurred by the rising Muslim population and Muslim visitors.

In terms of market value, halal food was worth USD 1.173 billion as of 2015. According to JETRO (2020), this amount was around three times the size of the US market for Japan (US\$380 billion). Since then, the amount spent by Muslims on food has grown, rising 6.9% in 2021 from US\$1.19 trillion to US\$1.27 trillion, and is projected to reach US\$1.67 trillion in 2025 (Attwood et al., 2023)

Following this tremendous rise of the halal food market, several Japanese businesses have taken the opportunity to involve in the halal market. Nevertheless, being a non-Muslim country, the halal industry in Japan is still developing and not widely distributed across the country (Kitayama et al., 2018; Widodo et al., 2022).

2.3. Halal certification

According to Khan and Haleem (2016), the process of halal certification include certifying goods or services in conformity with shariah law. In addition to the food industry, Halal certification also applies to any other products consumed or used by Muslims, including medicines, cosmetics, intermediate raw materials, as well as those products' raw materials, materials, additives, auxiliary agents, and others. Besides fulfilling the local demands, many Japanese companies who had acknowledged the potential of the global halal market, have expanded their businesses internationally. However, since there is still no single international standard for halal certification, Japanese businesses are required to apply for the certification in accordance with national requirements. In other words, to be a global player, the company inevitably have to engage with more stringent global Halal certification procedures.

According to the Japan Halal Business Association (JHBA) (2023), there are more than thirty HCBs operating in Japan. They came from a variety of backgrounds, including Japanese businesspeople who are familiar with Islamic nations and religious institutions, Muslim local residents and community members in Japanese cities, and Muslim academics who have interests in agriculture and food systems. The majority of HCBs have reciprocal recognition agreements with other well-known halal institutions like the Department of Islamic Development Malaysia (JAKIM), the Indonesian Ulama Council (MUI), the Islamic Religious Council of Singapore (MUIS), the Central Islamic Council of Thailand (CICOT), the Saudi Standards, Metrology and Quality Organisation (SASO), the GCC Accreditation Centre (GAC) from Saudi Arabia, and the Emirates Authority for Standards & Metrology (ESMA) and Emirates International Accreditation Center (EIAC) from UAE; and Ministry of Public Health, Ports Health and Food Control Section, Qatar. These bodies have been the main reference for Halal certification bodies around the world. In addition to collaborating with organisations that offer international halal certification, HCBs have created fundamental guidelines for the Japanese tourism sector to support the development of required infrastructure, including prayer rooms and special kitchens for preparing halal food (Deniar & Effendi, 2019). Additionally, the majority of HCBs have actively participated in numerous international exhibitions and provided Halal training and seminars, including the 6th World Halal Forum in Malaysia in 2011 and 2012, the Paris Halal Expo in 2012 and 2013, the Malaysia Halal Exhibition in 2013, the Turkey First Time Halal Approval Forum in 2013, and the Asia Food Show 2015-

Halal Japanese Live Cooking (Deniar & Effendi, 2019). HCBs fostered the participation of Japanese halal and Muslim-friendly businesses in the global market platform with the help of the Japanese government. The dedication of the HCBs to such initiatives raises public awareness of halal, particularly among the Japanese non-Muslim population. According to Sofyan et al. (2022), the creation of Japanese HCBs is a smart step to meet the needs of Muslims, both locals and foreign tourists, and it helps the halal industry gain acceptance in Japan. Table 1 lists the major domestic halal certification organisations that have been mutually certified by other international halal certifications.

Table 1. Main Halal Certification Bodies in Japan

NO	ORGANIZATION	CROSS CERTIFICATION BODIES					
		MALAYSIA (JAKIM)	INDONESIA (MUI)	SINGAPORE (MUIS)	SAUDI ARABIA (GAC, SASO)	UAE (ESMA, EIAC)	QATAR (Ministry of Public Health, Ports Health and Food Control Section)
1	Emirates Halal Center (EHC)					√	
2	Islamic Center Japan (ICJ)						√
3	Japan Halal Association (JHA)	√	√	√	√	√	√
			(excluding perfume)		(GAC only)		
4	Religious Corporation Japan Muslim Association (JMA)/ Institute of Islamic Studies, Takushoku University	√	√	√			
			(excluding slaughter)				
5	Muslim Professionals Association (MPJA)	√	√				
6	Japan Islamic Cultural Center/ Masjid Otuska (JIT)	√				√	√
7	Japan Halal Foundation (JHF)	√		√			
8	NPO Japan Asia Halal Association (NAHA)	√		√			
9	Prime Certification and Inspection Company Ltd (PCIC)					√	

Source: <https://jhba.jp/halal/organ/>

3. Methods

The study employs a qualitative research approach where several in-depth interviews were conducted with the representatives of the HCB. According to Ardiani Aniqoh and Hanastiana (2020), the qualitative technique was deemed suitable for data collection since it enables respondents to describe the symptom or problem under research in detail and concentrates on fundamental "how" questions by attempting to gather and present facts clearly and completely. Since there are no formal records on the HCBs in Japan, attempts to select the participants were based on the list from JETRO and through halal websites available. Five halal certification bodies were managed to be contacted and agreed to be interviewed. They were from various certification bodies located in Tokyo and Osaka. The representatives or the participants were among the directors and auditors that have vast experience and knowledge on the issues relevant to the study. As it has already been a norm after the pandemic, most of the interviews were conducted online which seems to be more convenient, flexible and cost and time savings. There was just one physical interview session held at the interviewee's office, which limited our ability to fully comprehend the working environment of an HCB.

The work system framework by Alter (2006) was utilised to generate themes for the open-ended interview questions concentrating on problems of "how," "what," "when," "where," and "why" in order to facilitate the interview. The interview process is primarily divided into four sections: background information on the interviewee and HCB, reasons for pursuing halal certification, difficulties encountered, and potential future opportunities. The participants were free to respond in their own words and convey any opinions or knowledge that they may have in relation to the questions. Prior to the interviews, participants were asked for their consent to record the interview sessions. They also have been assured that their input during the interviews will be treated as confidential and their background remains anonymous. Each interview was then been transcribed verbatim, and later analysed through the Nvivo software.

4. Findings

4.1. Profile of halal certified bodies

In many Muslim countries, the certification has been controlled directly by a government agency such as Malaysia (JAKIM), Singapore (MUIS) and Indonesia (MUI). There are also countries where certification bodies are monitored by the government for instance in Australia. Although there are several different certifying organizations, these organizations must have an approved arrangement with the Department of Agriculture, Fisheries and Forestry, Australia and adhere to the guidelines outlined by the department. Finally, the other scenario is the halal certification is only performed by voluntary organizations and no governmental body is involved. This is currently operationalized in Japan where most of the HCBs existed with the spirits to promote the availability of halal products in the Japanese market and to assist the Japanese producers to involve in the Halal industry for both domestic and foreign markets. Thus, the HCBs can be voluntary associations, business organizations or a section of the Islamic religious movement.

All of the HCBs have been recognized as International Halal Accreditation Bodies where they collaborated with other global certification bodies for instance JAKIM, MUI and GAG. As mentioned earlier, in order to encourage the respondents to express their honest views on the subject matter, the names of respondents and HCBs have been replaced by fictitious names. All interviewees have more than 10 years of experience and are knowledgeable about the issues that have been addressed, as listed in Table 2.

Table 2. Background of the interviewees and HCBs

RESPONDENT	POSITION	HCB	BRIEF BACKGROUND ON THE HCBs
A	Director	HCB A	Offers Japanese enterprises a platform for obtaining international halal certification and serves as a launching pad for Japanese businesses to investigate the Muslim world market. Supporting Muslim society activities in Japan. Worked closely with MUI, JAKIM and MUIS.
B	President	HCB B	Established in 2010. The primary aim is to create an environment that enables respect for Japan's Muslim lifestyle, especially in the environment of essential daily meals. The HCB's Halal Certificate is recognized as a valid Halal Certificate in countries such as Malaysia, Indonesia, Singapore, the Gulf states, Thailand and Taiwan.
C	Auditor	HCB C	A community-based organization. Started halal certification for the past 20 years. Collaborate with many other Muslim countries' standards such as JAKIM, MUI, Saudi Arabia, Qatar and UAE.
D	Food Scientist	HCB D	An international certification organization that has the religious corporation as the parent body. Has international mutual recognition with MUIS, JAKIM.
E	President	HCB E	Granting Halal Certification for goods intended for export, primarily to nations with a Muslim population. Based on mutual recognition, the Council of Indonesian Ulama (MUI), JAKIM, and GAC conduct audits and certify individuals. granting domestic eateries and motels recognition as Muslim-friendly.

4.2. Challenges

According to the interviews, the HCBs have brought up the following issues that happened at various supply chain stages:

4.2.1. A lack of interest in halal goods

How to get Japanese businesses to apply for micro-level halal certification is the HCBs' key priority. Respondent B claimed: *"The environment (halal ecosystem) of so is none. Companies are not the demand for that halal"*. There is still limited availability of halal products especially in rural areas and remote prefectures. As stated by Respondent A:

"If in Tokyo or Osaka, there should be no problem as there many inbounds (tourists), number of populations is high, but what about the rural areas?. And yeah, the Muslim in Japan is only 0.2%, around 100,000....So you can see how much. It is a very small minority, may be difficult to get halal products".

Without the pulling demand of the halal market, it may be difficult for the halal certifier companies to survive.

4.2.2. Misconception about halal and halal certification

The lack of demand is also contributed due to the misconception on halal and halal certification. Respondent A shared his experience dealing with local businessmen. Initially, they are reluctant to involve in halal due to the wrong perception that halal is difficult. As he said:

“Islam is actually easy but when we make it look difficult, people will be not interested to halal and Islam”. Furthermore, several halal certifier companies felt that once they received the halal certification, it automatically will boost their sales. However, they should understand that halal certification can only add value to their product and expand the market size to Muslim consumers. Hence, they still need to strategize their product to do well in the market. As claimed by Respondent C:

“Certificate is not all everything, you just add one value in your products and then you should sell this product as usual. Yeah, this is 1 of the mistakes. Let me honest here in Japan and most of those who is managed halal, sometimes we believe this mark (halal logo) is the product. But, in fact, mark is value, not products. Mm, hmm you just add one value in the product like another mark, like CE, mark or safety mark, whatever the mark you just see you have some value”

Other contributing factors that misled the image of the halal certification procedures are the cost charges are too high and the certification process takes so much time. These two factors are further discussed in the following points. Nevertheless, it is undeniable that there exist HCBs that really commercialize the processes and are prone to be profit-oriented establishments. As stated by Respondent A and Respondent D:

“the reason is that when people (HCBs) take advantage of halal itself..it distorts the image of halal as premium, exclusive so we ourselves has to improve”

“and the directors (of HCBs), and, uh, they are not attached with Islamic organization then if there's a chance to go to the business purpose. So this high risk, you know, compromising the halal system as well”.

4.2.3. The difficulty in locating halal goods

The level of acceptance among the locals may also be impacted by misconceptions about halal. They still have the mindset that halal only belongs to the Muslim community. As such, halal products and Muslim-friendly services can be difficult to marketable in Japan. Respondent A highlighted at this point:

“Japan is very patriotic with their products. It is not easy to take this food just because it is halal. Halal is not an indicator for them to buy. That point is very weak. Unless the product is really tasty, cheap, and competitive. Only then, they will take the products. Not because they are halal”

Respondent E similarly raised the concern that halal producers especially from abroad, are incapable of adapting to the Japanese culture and values. For instance, most of the products should be packed in small quantities, customize and follow tight schedules of delivery. Hence, the requirements

may be difficult for those companies to comply with, therefore affecting the availability of halal products and being unable to meet the local customer's expectations.

4.2.4. Halal certification process is complicated.

HCBs awarded the halal certification to the client companies based on the country that they engage with. For example, if they want to export the products to Malaysia, they will need approval from JAKIM. Every halal accreditation body may have specific requirements that vary from the others. As claimed by Respondent A, some of the accreditation bodies may be more stringent compared to others. Therefore, they need more paperwork and thoroughly check the documents to ensure halal applicant competency. These procedures are somehow time-consuming and seem to make the halal process complicated. The view was supported by Respondent B where she emphasized that halal integrity cannot be comprised in order to simplify the process. She said *"in the end, the certified company has to take the responsibility to assure the halal integrity of the particular raw material. So then we need to have enough information evidence"*.

4.2.5. High cost and premium maintenance

Another associated problem with the halal certification process that is perceived negatively by the manufacturers and service providers are high cost and premium maintenance. As stated by Respondent A:

"There are countries, for example, Thailand, Vietnam, who can sustain CB (certification bodies) by only provides the consultation, provide service to recognize only. But for high-income countries such as Australia, Japan, Korea..if you want to expect only CB, it's not enough to survive, as CB has staffing, the staff have to be paid, that's why they (halal certifications) are premium"

Similarly, Respondent B and E added:

"Not free at all. The most expensive is GAC (GCC Accreditation Centre) because they cover lot of countries. We have to admit that they are best in the accreditation as they doing in the business. There are like SIRIM sort of organization, as they have laboratory that they certified. Is not only for HALAL, like SIRIM they can certify their factory as they are more like certification organization."

"When it comes to money, charging depends on their certification body. Yeah, uh, there's no common role. how much you should charge this amount, on others charge this amount"

Respondent B, C and E viewed that halal certification is just similar to another kind of certification and the cost is always expensive. As their remarks below:

"Money from the application, we only gain the money. For the operation and to cover future operating costs"

"We can set this high cost or low cost but actually it depends on what kind of the product, what kind of factories"

“Not just halal. The cost of living in Japan is very expensive. Japanese products are very expensive”

Given that no single halal standard is to be adopted and no government body to manage the halal practices, undoubtedly the charges vary and cannot be controlled by the HCBs.

4.2.6. Lack of supply chain management capabilities and cooperation

Respondents were asked about the issues in supply chain management capabilities and cooperation. In general, they are unable to discuss in detail the halal certifiers' capabilities because they believe their clients should already fulfil the prerequisites to be operated according to the halal regulation. Respondent A stated:

“the Japanese, if he really wants to make it halal, he will try to get the support (from all the companies in the supply chain). If he needs to change raw material, he has to change his supplier. But we try to help him without changing the structure, we try to find a way how he can get that halal. For example, we ask for the breakdown, details of the materials. We as the the CB has to do more work. The reason is that we don't want it to be halal, but the price is getting more expensive”

He contends that HCBs should support their customer during the certification process. There are instances where a single supply chain participant is eager to apply for the halal certification but is unable to secure the support of the other participants. As emphasized by Respondent D:

“.. in the end, the certified company has to take the responsibility to assure the halal integrity of the particular and raw material. So, they must have enough information and evidence. To assure the integrity on a particular thing. So sometimes it's very, very difficult”

In addition to operational capabilities, customers' concern about the halal supply chain is developing in relation to halal logistics. However, it seems a challenge to be realized due to the small market. Respondent C said:

“It was very nice too easy to apply. However, it's not logic and for a Non-Muslim country that has minorities to be one box in big truck. So, able to use the same logistic if for this situation. they said the shelf, so there's costly for them. Not easy and not applicable”.

Similarly, Respondent E viewed:

“Japanese is minority. When you get halal..its quite tough to get halal for the whole supply chain. It is hard for all forwarders companies to comply with bringing only the halal products. There are only two companies that can handle halal logistics – Nippon Express and Yusen Logistics..so how do you want to control the traceability, right? That's the reality as of today. However, there has been an improvement. (Before this) They have mixed it, but now they able to split it”

4.2.7. No governance body

As mentioned earlier, there is no governing body that can monitor the halal certification procedures in Japan. Hence, there are many unstructured operations that can be the leading contributor to the other challenges above.

“There is no standard. We are still looking for. There's no governance body, especially from an independent party. So there are certification bodies that simply give the certification. But for us, we really have to follow the JAKIM procedure” – Respondent E

“the infrastructure is missing. So, infrastructure was not there, (means) the regulation is missing. yeah I mean not only in Japan yeah almost in the Non-muslim country, but we can also say infrastructure is still not strong” – Respondent B.

However, she claimed it is not appropriate for the Japanese government to take charge of halal governance since they are not Muslim and may not have the knowledge to deal with the fatwa or anything related to Islamic regulations.

Respondent C proposed the best solution is to follow one International Standard as what has been practised in the ISO quality certification.

“We should be joining the international system. so, in this case, we didn't need, uh, like the organization to control about halal. But we imported from the international standardization system”

5. Discussion

The issues stated above are frequently present in other nations. But similar problems are more common in non-Muslim nations, especially in Japan, where halal regulation and enforcement are not under the control of a single body. As a result, Japanese businesses must seek certification from agencies in Japan that have been approved by the agencies in charge of certification in the respective export destinations (Yamaguchi, 2019). The process can be very delicate and complex. The respondents' views on the halal certification processes and fee charges indicate that they have limited control and highly rely on the requirements of the international certification bodies. Furthermore, the lack of a global halal standard poses a significant obstacle to the development of the halal industry, complicating the certification process and escalating rivalry between certifying bodies (Yamaguchi, 2019). The SMIC (Standards and Metrology Institute for Islamic Countries) is one organisation making an effort to provide comprehensive and universal halal standards, however the regulations have not yet been fully followed.

Since there is still a limited demand for halal goods and services in Japan, more work must be done to raise awareness of halal among Japanese consumers. According to Kadir et al. (2016), the lack of understanding of halal among manufacturers, service providers and customers hinders the success of the halal industry. The findings from the interview concur with other previous studies (Jamaludin & Sugawara, 2022; Kitayama et al., 2018), there is confusion among the Japanese that brought misconceptions about halal and halal supply chains. Hence, it is vital to develop the trust and credibility

of the halal certifying bodies so that halal products and services can easily be accepted by the locals. In this situation, spreading awareness of halal through education, social media, and public involvement could have a big impact on consumers' intentions to buy halal products and encourage more businesses to apply for the halal certification.

One entity in the "keiretsu" supply chain, which is Japanese in origin, was able to secure cooperation from other parties in the chain in order to submit an application for halal certification. Keiretsu is a Japanese word that means "group." Thus, the establishment of a keiretsu enables an organisation to forge reliable, long-term partnerships, which in turn aids them in maintaining their competitiveness and concentrating on their primary business requirements (<https://www.techtarget.com>). However, in transporting halal products to customers, mainly the halal logistics and halal food segregation are still difficult to be fully deployed. At the moment, there are only two logistics companies that are Nippon Express Ltd and Yusen Logistic which are halal certified. The highest level of segregation of the halal product and non-halal executed in a Muslim country may be difficult to apply due to the small quantities of halal products and it would be very costly. Therefore, the main concern at the present time is to keep a distance from haram materials.

The revealing of the challenges has subsequently offered recommendations for the betterment of HSC in Japan. Besides more efforts to increase awareness of the halal industry, the respondents highlighted the below recommendations:

- i. Get support and work closely with Japanese government agencies.
- ii. Exploit opportunities from Japan Muslim-Friendly tourism
- iii. Strengthen the religious organizations to promulgate Islam and Halal.
- iv. Increasing the use of technological applications like artificial intelligence and the Internet of Things (IoT) has become the cornerstone of halal supply chain competitive advantage.

Notably, if the challenges can be tackled effectively, it can assure that a viable halal ecosystem in Japan can be developed in future.

6. Conclusion

The Japanese should seize this chance to meet demand and integrate the halal supply chain into their operational activities, despite the fact that the halal business is growing at a rather slow rate. Insights into the possibilities of the halal market and supply chain in Japan are provided by this exploratory study. The limited size of the halal market in Japan encourages local businesses to expand internationally. The rise in Muslim visitors to Japan has also raised the possibility of the emergence of halal goods and other associated halal enterprises. But to provide a clear understanding of halal goods and services, serious efforts are required. Future studies should therefore be conducted to fill the knowledge gap on halal and to improve the halal supply chain in Japan.

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