

The Importance of Halal Logistics Implementation in Indonesia in Compliance with Domestic and Global Halal Market Requirements

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Abstract

Halal logistics is very crucial in ensuring and maintaining halal requirements of halal products from production to consumption. However, the concept of halal logistics is not very well understood and implemented in Indonesia by either the regulators or the logistics players due to a lack of concern from various parties. Therefore, this research is conducted to explain the halal logistics concept, define a potential standard for halal logistics and give recommendations on how the implementation of this concept can be executed in Indonesia, in compliance with domestic and global halal requirements. The methods used in this research are a literature review and a theory analysis, concept and also rules and policies that in force in Indonesia, which in the end can be seen clearly whether halal logistics has been implemented or not to compliance domestic and global markets. The result shows that there is no specific regulation yet in Indonesia in terms of halal logistics and distribution. The authors proposed several recommendations of how to conduct and treat appropriate halal distribution process, which it is expected will be able to be fundamental for the government and MUI to implement and certify it as the regulation standard.

Keywords: Logistics, Halal Products, Halal Logistics, Livestock

Introduction

In a globalizing world, the trade of goods is exponentially increasing. Along with the increase of the Muslim population, society starts considering and consuming halal products. According to the World Population Review (2019), currently, there are approximately 1.8 billion Islam adherents in the world, making it the second majority religion after Christian. Indonesia itself known as the most populous Muslim country, with approximately 229 million or 87.20% of total populations. It means that 12.70% of the world's Muslim population is from this country, making the production and consumption of halal products are highly considerable.

Currently, there are several initiatives in the Muslim world to emphasize the requirements for Muslims to consume halal products. There has been as well an initiative in Europe to define a European standard for halal products, such as concerning to have a halal certificate for several international ports in terms of storage and distribution facilities. Unfortunately, this initiative has failed, since it was not possible to find common ground for such a standard among different national and independent organizations involved and in combination with inconsistencies within the religious community.

As the largest Muslim population, Indonesia becomes one of the most potential markets for halal products in both regional and global. The

increasing of Muslim awareness in consuming halal products that is triggered by their religious obligation has successfully increased the country's global rank from 11th to 10th place on halal products consumption in global halal market (SGIE, 2018). On the other hand, Indonesia also imports some of the consumer goods, most dairy products from Europe. However, Indonesia's current condition in treating halal products not guaranteed that 100% halal due to supply chain as well as the movement and storage issue during the distribution process, since most of the farms in Indonesia are family businesses thus the processes executed traditionally.

Majelis Ulama Indonesia (MUI) as the religious organization council that is focusing on providing the halal certificate in Indonesia has not released the concept and regulation of halal logistics yet. As customers are demanding for halal-certified logistics service providers (Tieman et al., 2013; Talib and Hamid, 2014), it is essential for Indonesia to start focusing on creating a regulation on Halal logistics. The development of halal logistics in Indonesia needs to be directed to halal logistics certification in the overall supply chain system, starting from the procurement of raw materials, warehousing, transportation, and distribution, then to be developed in the halal product value chain by building a halal logistics area, halal product entrepreneurship, the area of halal products industry and SMEs, and the development of exports of halal products, as well as support

from the Islamic financial or banking system in financing halal products (Supply Chain Indonesia, 2016).

On this basis, this paper aims to explore the design of halal logistics and its implementation in Indonesia in compliance with both domestic and global requirements through three following objectives:

1. Determining the requirement and implementation of halal logistics in Indonesia to satisfy the domestic and global market demand.
2. Designing the appropriate treatment for the distribution between halal and non-halal product, particularly for large livestock production.
3. Analyzing the opportunity for Indonesia in the global halal market.
4. Proposing recommendations of halal logistics regulation for the government and MUI.

Methodology

This paper will outline the theoretical concept of halal logistics by using analytical research, data source, concept and also rules and policies approaches that focused on large livestock production and distribution in Indonesia, particularly in the provinces with top 5-yield for each type of large livestock. Kothari (2004) explains that in conducting analytical research, a researcher has to collect available facts and information from credible resources and then analyze these and critically evaluate them.

The data presented in this research is the information that covers the number of existing and potential consumers, the production rate, the consumption rate, and the number of export and import of livestock in Indonesia. Data period in this research ranges from 2016 and 2017 which limited the study into the short-term period. In order to achieve this objective, the literature on the halal concept, all related Islamic law, halal logistics, innovation in the industry, and the existing implementation will be reviewed.

Result and Discussion

Halal Standard in Islamic law

Halal means permissible, and it often referred to foods and beverages which are permitted for Muslims to eat and drink under Islamic law (Al Jallad, 2008). Halal also refers to other products such as pharmacy and cosmetics (Jaafar et al., 2013). Moreover, the concept of halal refers to a correct Islamic lifestyle. Furthermore, all halal products must be in good condition and a guarantee for cleanness or hygienist, quality (nutrition), and safety (not contaminated by non-

halal products) before they consumed (Al Jallad, 2008).

If *halal* means permissible, then *haram* means impermissible according to the guidelines given by Allah in the Qur'an and explained by the Prophet Muhammad (Jaafar et al., 2013). Considering halal and haram is frequently used in consumer goods, especially meat. Al Jallad (2012) and Kamali (2010) have summarized the principles of halal and haram meat, referring to Fiqh (Islamic law) and extracted from Fiqh books:

1. Dead animals, blood, and the flesh of swine (and all products made of pork) clearly stated in the Qur'an that they are *haram* to consume.
2. Some specific animals are haram to consume due to their nature based on specific explanation. For example, pig (pork, bacon, and all its derivatives), amphibians, reptiles, animals with the canine tooth, and carnivore. Meanwhile, other processed food contains the haram meat aforementioned, and those containing alcohol and their variants are also classified as *haram*.
3. Halal meat comes from permitted animals, produced and processed (e.g., slaughtering and packaging), as well as treatment during the distribution process, all in halal ways (Al Jallad, 2008; Kamali, 2010).

From a business perspective, the essential of consuming halal products required by religious obligation is becoming a global business practices and opportunities (Lada et al., 2009). With a combined value of USD 2.1 trillion in 2017 (SGIE, 2018), the halal market is one of the largest business markets in the world, comprises of different products including service (logistics, banking, and tourism). On the contrary, the potential is still enormously unexploited yet (Wilson and Liu, 2010; Abdul-Talib and Abd-Razak, 2013).

Meat Production and Consumption in Indonesia

Livestock is grouped into large livestock (beef cattle, dairy cattle, buffaloes, and horses), small livestock (goats, sheep, and pigs), poultry (native chickens, layers, broilers, ducks, and Muscovy ducks), and various livestock (rabbits, quails, and pigeons). Based on the data of Livestock and Animal Health Statistics 2018 released by the Directorate General of Animal Husbandry and Animal Health, the Ministry of Agriculture of the Republic of Indonesia, the distribution of livestock population spread over 34 provinces in Indonesia. East Nusa Tenggara is a province in Indonesia with high potential in farming leads in several types of large livestock production, compared with other provinces' yield. This province has the highest

production in pig with over 2 million heads yearly, while also in the 5th rank in terms of beef cattle production. The top producer of large livestock in 2017, with the focus on beef cattle, lamb, and pig as the top 3 consumptions, presented in table 1.

The table above shows that the most significant producer of beef cattle and goat are from East and Central Java. A pig which is known as non-halal livestock produced at

Table 1. Livestock Production in Indonesia in 2017

Province	Production (Head)		
	Beef Cattle	Lamb	Pig
East Java	4,657,567	3,426,967	57,917
Central Java	1,721,018	4,108,188	116,195
West Nusa Tenggara	1,193,249	678,769	44,778
East Nusa Tenggara	1,027,256	693,577	2,141,246
South Sulawesi	1,508,401	830,718	774,212
West Java	406,241	1,274,548	8,028
Aceh	671,639	658,613	2,935
North Sumatra	748,133	908,880	1,228,951
Lampung	679,795	1,386,009	43,597
Banten	65,698	848,349	5,988
Papua	125,661	61,756	871,809
Bali	560,546	49,778	690,095

Source: Direktorat Jenderal Peternakan dan Kesehatan Hewan Kementerian Pertanian RI (2018)

the largest in East Nusa Tenggara, followed by North Sumatra and Papua. Moreover, East Nusa Tenggara also in the top 5 for beef cattle production, along with South Sulawesi as beef cattle and goat producer and Bali with its pig yield. Concerning Indonesia is currently leading as the world's top best halal tourism destination in 2019, and the fact that the most touristic places in Indonesia, such as Bali, Komodo Island, and Lake Toba are located in the province with high non-Muslim population, non-halal livestock production, as well as non-halal cuisines, making the regulation for halal livestock distribution needs to be concerned.

Badan Pusat Statistik (BPS) conducted a survey of, and the result found that in Indonesia, the consumption of fresh meat per capita in 2017 is up to 7,351 kilograms and divided by nine categories. This percentage increased by 14.60% compared to the previous year. The population increase and changed lifestyle are two main factors that affect the consumption of fresh meat (Livestock and Health Animal Statistics, 2018). The data presented in table 2.

Indonesia itself still imports large livestock (LS) and livestock products (LP), since the local supplies are not able to satisfy the demand. At the same

time, the country also exports livestock animals, most of them are pigs, like the fact that the 87.20% population of Indonesia are Muslim. Thus, the country has oversupply because of less demand and consumption from the non-Muslim as the minority in the country. The detail presented in table 3.

Table 2. Livestock Consumption in Indonesia Between 2016 & 2017

Fresh Meat Category	Consumption per capita (kg)	
	2016	2017
Beef	0.417	0.469
Lamb	0	0.052
Pork	0.261	0.261
Broiler meat	5.110	5.683
Local chicken meat	0.626	0.782
Duck meat	0	0.052
Other meat	0	0.052

Source: Direktorat Jenderal Peternakan dan Kesehatan Hewan Kementerian Pertanian RI (2018)

Table 3. Export and Import of Livestock and Livestock Product in Indonesia

Commodities	Export (kg)		Import (kg)	
	2016	2017	2016	2017
Beef Cattle (LS)	0	0	195,764,113	168,588,530
Lamb (LS)	0	6,240	0	0
Pig (LS)	28,145,599	27,575,397	491	0
Beef Cattle (LP)	14,841	28,638	116,761,381	118,590,207
Lamb (LP)	114	34	2,095,187	2,538,862
Pig (LP)	278,822	605	1,464,623	770,597

Source: Direktorat Jenderal Peternakan dan Kesehatan Hewan Kementerian Pertanian RI (2018)

Market Potential of Halal Food Sector

Islamic Economy

Islam is the world's second majority and the fastest-growing religion. With 1.8 billion of Muslims population globally, in which they spend estimated at USD 2.1 trillion in 2017, the Islamic economy continues its steady growth (SGIE, 2018). Based on the State of the Global Islamic Economy (SGIE) Report 2018, Muslim global spending on food and beverages had a substantial increase by 6.1 per cent in 2017. Until 2023 the spending of the global Muslim market on food, for example, is expected to further rise to

USD 1,9 trillion which encourages significant opportunities for investment and the creation of global halal food brands (SGIE Report, 2018).

Malaysia, United Arab Emirates (UAE), Bahrain, and Saudi Arabia are still taking the lead in Islamic Economy and have undertaken important initiatives across regulation, trade and industry support to adhere their status as hubs of the Islamic economy. There is a growing recognition, however, particularly among Muslim countries, of the need to address the substantial global trade in halal products, as well as the travel opportunity. Such initiatives have translated to important movements by other Organization of Islamic Cooperation (OIC) members, especially Jordan and Indonesia (SGIE Report, 2018).

Global Halal Products

Halal Food industry has been seen as the main sector that boosts the Islamic Economy where it has more companies than any other sectors including Islamic Finance, Halal Travel, Modest Fashion, Halal Media and Recreation, and Halal Pharmaceuticals and Cosmetics. More and more halal-certified products are on offer, from burgeoning demand for halal mozzarella, to growing demand for Muslim-friendly resorts (SGIE, 2018).

American and European countries have a significant role in the global Islamic economy, either as producers or consumers. Among European Union member countries, France, Germany and Sweden are the three countries with the most significant Muslim population in absolute numbers. In 2016, there were 5.7 million Muslims in France (8.8% of the country's population) and 5 million Muslims in Germany (6.1% of the country's population) and (Hackett, 2017).

China is the top exporter of halal Food to the member countries of the OIC, followed by the Philippines and Canada (SGIE, 2018). In 2017, global halal-certified products, including food and beverages, were valued at USD 415 billion. This number comes from total products that are generally consumed by Muslims. However, the suppliers of global halal meat are non-Muslim majority countries such as Brazil, Australia, India, France, and China. Meanwhile, Muslim majority countries to be mentioned Saudi Arabia, Malaysia, UAE, and Egypt are at the top 5 of the largest halal meat importers (Salaam Gateway, 2017).

Halal Logistics

Definition and Principle

Halal logistics can be defined as logistic activities that cover warehousing, distribution, and retailing aspects based on Islamic law (Sharia). Halal logistics will ensure that all halal products are packed, handled, stored, and distributed in

permitted ways from producers to consumers ("farm to fork" concept). All halal products should be in good condition and guarantee cleanliness, quality (nutrition), and safety (non-contamination with non-halal products and materials) before they are consumed (Jaafar et al., 2011). Halal logistics is also described as the management of halal network with the objective to extend the halal integrity from the source to the point of consumption (Zulfakar et al., 2012; Tieman et al., 2012; Tieman, 2013).

For the implementation of a halal logistics concept, the supply chain partners must be familiar with the halal standards and be able to differentiate halal and haram products; as it is important to segregate the products in order to avoid cross-contamination accurately. Throughout all logistics activities, halal and non-halal products should not be mixed (Jaafar et al., 2013).

Halal Logistics Requirements and Procedure

The Islamic Chamber of Commerce and Industry – International Halal Integrity (ICCI-IHI) Alliance has developed a halal standard according to the International Standards Organisation (ISO) requirements. Their halal standard is covering the entire halal value chain, including halal logistics that covers Warehouse Treatment, Distribution and Transportation Treatment, and Terminal Treatment. The standard is called Halal Standard Logistics IHAS 0100:2010 (ICCI-IHI, 2016).

Warehouse Treatment

1. Halal cargo and non-halal cargo must be segregated during warehousing processes.
2. Halal products must be placed in a dedicated storage zone (floor or racks) and be separated from non-halal products (e.g., visibly marked through unique colors).
3. Halal products must be placed in a dedicated cold room and be segregated from non-halal products by placing them in separate containers or by keeping physical barriers.
4. The facility layout of the warehouse should be designed to be separated between the halal and non-halal area for the goods (ICCI-IHI Alliance, 2010).

Distribution and Transportation Treatment

1. Transport vehicles and load devices used for the transport of non-halal products are not allowed to be used for the transport of halal products unless the vehicles and load devices are cleaned through a particular cleaning method based on the Islamic rules. Thus, it is important to know the use history of the vehicle or loading device.

2. Halal and non-halal products, including products containing *najs*, are not allowed to be mixed in one vehicle or on one load device.
3. When halal and non-halal products are transported in the same vehicle or on the same load device, proper physical barriers, and tertiary packaging for halal products are required (ICCI-IHI Alliance, 2010).
4. In terms of multimodal distribution, it is suggested to keep using the same container in order to avoid the movement will cause contamination from the container or other tools and equipment with an ill-defined usage history.
5. If the distribution process involves the third-party logistics company, it is required that the company has an official halal certification from MUI in terms of the distribution services.
6. Moreover, MUI should start considering publishing the certificate is not limited to the company's products but including the services.

Terminal Treatment

Halal cargo and non-halal cargo must be physically segregated throughout all processes and activities in the terminal (ICCI-IHI Alliance, 2010).

The Implementation of Halal Logistics in Indonesia

The Current Status of the Implementation

Indonesia has the largest Muslim population with approximately 215 million Muslims representing 13 per cent of the world's Muslim population. This population spends about US\$218.8 billion across the Islamic economy sectors in 2017 and has increased Indonesia's ranking for global Islamic economy from 11th to 10th place. This increase has mainly driven by the rise of halal-food consumption awareness (SGIE, 2018).

Halal certification is issued by independent and government institutions to control halal products produced and distributed in the country. A halal certification body issues certification for the production of halal products, including food, beverages, pharmacy, and cosmetics such as Majelis Ulama Indonesia (MUI) in Indonesia, Jabatan Kemajuan Islam Malaysia (JAKIM) in Malaysia, and Halal Control in Germany (JAKIM, 2016).

In the area of halal logistics, Malaysia is the pioneer in issuing a halal certification for logistics. JAKIM, as a Malaysian government institution that issues halal certification for the food, beverages, and other products, also certifies logistics service

providers for the operation of halal warehouses under the MS 1500:2009 (Halal standard guidelines issued by JAKIM). In 2010, JAKIM issued a new halal certification for the halal logistics sector (transportation, warehouse, and retail) under MS 2400:2010 as a national standard (Tieman and Ghazali, 2014). Moreover, IHI Alliance published an international halal logistics standard (IHIAS 0100:2010) in 2010 (ICCI-IHI Alliance, 2010).

In 2016, IPC Logistics Service or Multi Terminal Indonesia (MTI) with Majelis Ulama Indonesia (MUI) signed an agreement to start the implementation of the halal hub port in the Port of Tanjung Priok, Jakarta (Supply Chain Indonesia, 2016; Qurtubi, 2017). However, the specific regulation is not released yet. The domestic demand in halal products, as well as the expansion of the Indonesian market through ASEAN and further at the global level, are encouraged industries in Indonesia to be concerned about both brand and distribution issues.

Since the halal certification still focusing on product, several companies started registering to get their brand considered as halal one. However, most manufacturers in Indonesia are still reluctant to certify their products as the certification will increase production costs. Moreover, the definition of halal itself is very extensive. Especially that Indonesian Muslims do not specifically concerned with the halal logo since everything in the country that was not made from pork is undoubtedly considered as halal (The Jakarta Post, 2019). It results that in 2018, Thomson Reuters reported that Indonesia is not listed in the top 10 countries in the Halal Food Indicator. This is contrary to the fact that Indonesia is the world's largest Muslim population, which, in the case, should be the key player in terms of producing halal products.

In terms of the development of halal logistics, since October 2014 regulation of Indonesia's Halal Product Assurance has signed by President Joko Widodo, where the content states that all the products that enter, circulated, and traded in Indonesia must be halal-certified by MUI, and estimated will effectively implemented within five years (The Jakarta Post, 2019).

To support the implementation of this regulation, it is very important to form an internationally recognized body to set standards for the implementation as well as to provide the necessary enforcement and harmonization of implementing Halal logistics in Indonesia. Since Indonesia already has Majelis Ulama Indonesia (MUI) as a recognized halal certification body, then MUI needs to follow-up the signing of the regulation of Indonesia is Halal Product Assurance by President Joko Widodo and encourage the

related ministry, in this case is the Ministry of Religious Affairs, to issue a ministerial decree on halal logistics implementation and certification.

The implementation of every step of halal logistics including requirement and procedure in warehouse, distribution, transportation, and terminal treatment must also involve all related institutions and parties. For example, involving MUI in establishing a clear procedure of halal logistic implementation and implicating the Indonesian Ministry of Transportation to make policies related to transportation treatment. In developing halal logistics procedure, Indonesian government and MUI shall involve all related parties such as Logistics Service Providers (LSPs) and operators (for example: airlines, air freighter, shipping companies, and truck service providers) who will be participating in the distribution and transportation, as well as airport, seaport, and land port service providers for the treatment in warehouse and terminal.

Speaking about the economics aspect at the global level, it is also important for the MUI along with the Indonesian Ministry of Trade to have such a clear procedure of export and import products that distribute to and from Indonesia. Specifically, for the export products, the regulation should be more detail in terms of the ingredients and the Standard Operation Procedure (SOP) that sometimes stated in different languages in which the stakeholder does not understand the exact definition. Three related ministries –the Ministry of Religious Affair, the Ministry of Transportation and the Ministry of Trade– and MUI must also ensure that all the treatments conducted by the origin factory abroad at the local level are satisfying the Indonesian halal logistic requirement, in both production and distribution.

Challenges

The implementation of halal logistics in Indonesia is still facing challenges because it requires more extensive and complex processes in terms of the supply chain from the producer to the customer (Vanany, 2017). Moreover, like in other countries, there are lacks in halal logistics experts, which cause difficulties in determining the appropriate concept of halal regulations and law (Jafaar et al. 2013). Meanwhile, major challenges to implement halal logistics are due to very little number of certified halal Logistic Service Providers to accommodate the halal demand and there is no standardization of halal logistics process and procedure among the port operations (Sham et al. 2017). Therefore, the existence of halal certification body like MUI and the interference from government are urgently needed.

Furthermore, once the regulation is implemented, there will be another challenge to be faced such as controlling and monitoring halal logistics activities from “*farm to fork*” including transportation activities and the movements of the products by any type of transportation (Sham et al. 2017). Lack of control and monitor from the players and authorities may cause risk of cross contamination of Halal product with Non- Halal during transportation operations.

In term of challenges assumption, the writers are anticipating three next challenge in the implementation of halal logistics in Indonesia. The first assumption is, to apply the certificate of halal logistics from MUI that will require a lot of documentation that need to be prepared by Logistic Service Providers as currently happened to the process of acquiring halal certificate for food and restaurant. The second assumption is that the halal certification fee that will be charged by MUI will highly costs that will automatically increase the operation cost and impact the service charge to customers. The last assumption is the duration of time imposed by MUI to process the certificate of halal logistics that will take quite long time, since it will need such a period of time to observe the whole process from the raw supplier to the end-customer, which involves a huge distance, even in the domestic level where the distribution process requires intermodal transportation treatment for the hinterland areas.

Future Trend of Halal Logistics in Global Market

Malaysia is known as the country pioneering and introducing halal certification for logistics. Halal logistics certification granted by the Malaysian government is also recognized by other Islamic countries in Asia, the Middle East, and North Africa. By this certification, the governments help logistics operators to develop halal distribution networks in their countries (Zakaria, 2008; Idris, 2013).

Following the success of halal logistics in Malaysia, the Malaysian government has supported different companies, e.g. Nippon Express (a Japanese logistics operator), the port of Marseille in France, the port of Rotterdam in the Netherlands, and the Belgian port of Zeebrugge in specializing in and/or achieving a certification to become a halal gateway in Europe (Nippon Express, 2014; Speetjens, 2017).

In Europe, there are at least three countries that have halal logistics facilities. In the Netherlands, since 2007, the port of Rotterdam has a halal dedicated storage facility in its attempt

to be recognized as the critical halal entry point for the European market (Nadaraj, 2013). In 2012, the port of Marseille in France developed a halal regional distribution center in collaboration with the Malaysian government (Nadaraj, 2013). In the same year, in 2012, the Belgian port of Zeebrugge has become the first port in North-Western Europe certified to process halal food products (Transport Weekly, 2012).

Indonesia has an extensive opportunity to be a global-scale Halal products supplier supported by the number of Muslim population and domestic halal products commodities. The implementation could be realized by complying International halal logistic standard regulated by the authorized institution as required by both domestic and international buyers.

Conclusion

The halal food sector is a growing and attractive market segment. Practicing Muslims are required to consume halal products, meaning products that have been produced and transported according to the Islamic standard (sharia). There is a new trend requiring not only a halal production of goods but also the whole halal supply and distribution from the production site to the consumer. Thus, halal logistics are logistics activities that cover packaging, warehousing, transportation, and retailing aspects controlled through standardized rules and procedures. Some specific requirements and procedures distinguish halal logistics from general logistics. All processes and activities in halal warehouse, distribution, and terminal are strictly regulated, especially the segregation from non-halal products and the cleansing ritual.

In conclusion, not only halal production but also halal logistics will become increasingly important, creating potential business opportunities in this sector. As a country with the largest Muslim population, Indonesia should be more aware of halal standards and be looking for halal-certified products due to the growing Muslim population globally that is likely to increase market demand of halal products that meet complete halal procedures during handling, warehousing, transportation, and distribution. Meanwhile, the practice of halal logistics and certification is becoming crucial to be implemented in Indonesian domestic market especially in the regions with the high yield of halal and non-halal production of livestock. Currently, halal logistics certification in Indonesia is not officially regulated. Meanwhile, there is a clear trend that in the future Muslim countries like Indonesia might play a significant role in the global halal market that requires a halal supply chain. Since certification in halal logistics is

still considered costly, government and halal authorities should provide logistics companies with the understanding of the promising business from halal logistics and the importance of implementing the practice due to Islamic law and market's requirements.

Finally, this research featured the importance of implementing halal logistics practice in Indonesia and its issues related to the practice and certification. The result also calls for Indonesian government, specifically for the Ministry of Religious Affair, the Ministry of Transportation and the Ministry of Trade, and Majelis Ulama Indonesia as halal authorities to immediately initiate and issue halal regulation, procedures and certification processes and address any problems hampering the implementation. Additionally, this research only focuses on the analytical research, it is highly recommended for future study to perform field observation and survey using questionnaire and interviews to gather the data desired from certain targeted regions, population and authorities.

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