Proposing the Conceptual Framework of Halal Food Supply Chain Integrity for Indonesia

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Abstract: The demand for halal food consumption is increasing annually as a result of the rising number of Muslim population globally, which is approximately 1.8 billion. In 2010, the halal market constituted about 16 per cent of the world food trade in which the trade value around RM 1,628,.60 billion (US\$ 547 billion) for global halal market. The trend of global halal market creating attention for all of countries in the world whether Muslim or non-Muslim countries to generate more halal producers. The global halal market is growing. The halal food market is currently worth 16% of the total global food industry and could report for 20% of world trade in food products in the future. Asia, Africa, and Europe report for respectively 63%, 24%, and 10% of the international market. An increased number of consumers ask for food products that meet the terms with Islamic law, like food products that do not contain pork or that hold ritually slaughtered meat. Account for the total number of Muslim worldwide at 1.62 billion heads, representing 23.4% of an anticipated 2010 world population of 6.9 billion. Europe has a Muslim populace of approximately 44.1 million Muslims, which consist about 2.7% of its total population (Grim & Karim, 2011). The aim of this study is to propose the conceptual framework of halal meat supply chain integrity for Indonesia by focusing issues and challenges. As we know that the trend of demand for halal products increases from year to year. Halal supply chain is part of halal system and it is expected that halal supply chain can provide job opportunity for unemployment in Indonesia. Thus, it will reduce poverty and boosting economic growth in Indonesia.

SCIENCE AND TECHNOLOGY PLIBLIC ATIONS

1 INTRODUCTION: THE DEVELOPMENT OF GLOBAL HALAL MARKET

As number of Muslim populations is raising around 1.8 billion in the world, it led increasing as well the demand for halal products, particularly for halal food and beverages. According to Van der Spiegel et al (2012) that the halal food market reached about 16 per cent from the total of worldwide food trade. He further argued that the demand for halal products increased about 63 per cent, 24 per cent, and 10% in Asia, Africa, and Europe respectively. Meanwhile, Emi et al (2011) pointed that the halal food industry succeeded to reach around RM1,628.60 billion (US\$547 billion) in the global halal industry. Subsequently, it invites numerous global food producers whether Muslim or non-Muslim to produce more halal products, particularly halal food and beverages. Nowadays, halal industry also gave other opportunities to other industries areas such as halal

pharmaceuticals, halal cosmetics, Muslim friendly tourism or Syariah tourism, and Muslim fashion (Kaiser, 2016).

Roslan et al (2016) pointed out that there are increasing of Muslim consumers requested to producers to come up with the production based on shariáh law. It means that those products are free from pork, liquor, or slaughtered based on Islamic law. Further, they demonstrated that European recently concentrated on investment of global food industry. Some European sellers follow Islamic law in endorsing their fresh halal meat as they export their meat products to the Muslim countries. Netherlands is chosen as the main centre for halal market in European countries. In this regard, Netherlands will distribute the halal meat within European countries. It is also noted as the first country in the world which give facilities for halal storage and warehousing in the world and led the birth of halal supply chain. As the demand for halal food, including meat increase, it makes Muslim people realized that they need to make sure that the whole process of food production should

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be based on shariáh law. Thus, Tieman (2011) noted that the halal supply chain is very important to convince Muslim consumers the halal integrity of consumption.

Further Tieman (2013) also argued that the government and industries also should focusing on the importance of halal supply chain integrity. He further mentioned four reasons to come up with the importance of halal supply chain integrity. First, halal integrity issues are more likely to occur than before due to increasing complexity of supply chains. Second, the complexity of today's supply chain with a high percentage of imported ingredients is making integrity issues harder to detect. Third, halal integrity issues once detected go viral on the internet, exposing the integrity of a country's halal system and the brand owner concerned. The aim of these reasons is to assure Muslim consumers that they consume the food, including meat are exempted from pork, liquor, and other forbidden things.

Other issues related with the halal supply chain integrity are including food ingredients, food cleanliness, and halal food may mixing with nonhalal food in terms of storage and distribution, warehouse. Recently, Muslim people also aware with the issues of poultry and meat slaughtering that does not comply with the shari'ah principles or shariah law.

The aim of this study is to propose the conceptual framework of halal meat supply chain integrity for Indonesia case study. At the same time, this study also concentrates on issues and challenges in applying halal meat supply chain integrity in Indonesia. As we know that the trend of demand for halal products increases from year to year. Halal supply chain is part of halal system and it is expected that halal supply chain can provide job opportunity for unemployment in Indonesia. Thus, it will reduce poverty and boosting economic growth in Indonesia.

2 UNDERSTANDING ON THE CONCEPT OF HALAL, HALAL SUPPLY CHAIN, HALAL SUPPLY CHAIN INTEGRITY

Zulfakar et al (2011) stated that halal means legal, permissible and no prevention of doing those activities and must be based on Islamic law. Further, Nurul huda et al (2009) argued that halal related with the concept of permissible based on Islamic law. They also added the concept of Thoyyiban (wholesome). Thoyyiban can be defined as the finest quality, safety,

hygiene, healthful, and genuine. In the meantime, Noorsiah et al (2016) defined halal concept as the term which is not only focusing on food and drinks, but also covering the daily activities as a Muslim. The label of halal and haram refers to lawful and unlawful based on shariáh law. Shariáh law referring to a moral system which guides the Muslim daily life in terms of food and beverages, hygiene, family, politics, banking and business. The Islamic religion also concentrates on cleanliness (toyyiban) in terms of spiritually, physically, mentally, and health. Noorsiah et al (2016) stated that halal management governs not only for food production or manufacturing but halal management also covers sourcing or origin of raw materials (halalness), movements, transportation and distribution processes from the upstream (origin) and downstream to the market (end users) that involves transporters, containers, modes by road, air or sea, the warehouse and distribution centres owners and operators and their operations; the wholesalers and retailers and their business to the end in the hypermarket, supermarkets and small retail outlet services must be halal compliance. Due to these reasons, we have the concept of halal supply chain which has the purpose to make sure all of the products free from forbidden things.

Supply chain management is part of production activities that covering warehouse, storage, containers and distribution. Zulfakar et al (2011) stated that supply chain management (SCM) is kind of management activities held by supply chain on production, players which is focuses transportation, location, and transportation with the aim to reach the greatest combination of responsiveness and competence for the market served. Recently, as the awareness of Muslim people on halal product growing, particularly on halal food and beverages, it led the birth of halal supply chain. The halal supply chain applied to convince that all the products consumed are exempted from the unlawful things. Zulfakar et al (2011) mentioned that halal food supply chain composed of three procedures namely planning, implementing, and controlling the flow of upstream (origin) until to the market (end users). At the same time, all the procedures involving in halal supply chain activities must be halal certified. In other words, halal supply chain is kind of management activities involving the process of procurement, movement, storage, and controlling products via the organization and the supply chain must be halal certified following the shariáh law.

In the discussion of halal supply chain, we also need to know about the importance of integrity to make sure that all procedures from origin until end users are not contaminated with forbidden things. Integrity can be defined as part of truthful, having good manner, righteousness, solidarity, consistency, unity, good moral value, and trustworthiness (Noorsiah et al, 2016). Thus, the concept of halal integrity for halal meat supply chain means that to support the processing of halal meat and cargo, and to uphold the toyyib in terms of the meat handled and processed through the halal supply chain network including transportation, warehouse, and storage and delivered to the end of consumers; and the people employed during this halal meat supply chain procedures are the trusted people who do their operation based on Islamic law. In the meantime, Tieman (2013) promoted the system of segregation and communication for the system of halal integrity supply chain. The segregation process is needed to assure that the process of production till distribute to the end users are exempted from forbidden things based on Islamic law. This segregation process which is implemented on transportation; stowage in sea, air, and inland terminals with the purpose to separate the halal and non-halal products.

3 PROPOSING CONCEPTUAL FRAMEWORK OF HALAL FOOD SUPPLY CHAIN INTEGRITY FOR INDONESIA

In this regard, this study aims to propose the conceptual framework of halal food supply chain integrity for Indonesia in figure 1. There are various steps in deriving the conceptual framework started from the process of halal animal feed, halal slaughtering process, halal logistics, halal traceability, halal assurance system (halal standard and certification), trust and commitments, and lastly is the importance of role of government.

3.1 Halal Animal Feed

Halal animal feed is one of the vital roles in ensuring that the products consumed is exempted from the forbidden things. The Government of Malaysia had issued the Malaysian Standard MS1500:2004 to promote that the people have to feed animal consumed by Muslim people such as cow, sheep, chicken, fish with halal food, and not contain pork enzyme. Furthermore, ingredients of the food must be exempted from any genetic modified organism from non-halal animals (Emi et al, 2011). Thus, the food for animal required to utilize vegetable or organic food. In terms of medication, the animal also has to consume the medicine and nutritional which not contain harmful things. The purpose is to make sure that the Muslim people consume animals exempted from the forbidden things.



Figure 1 Conceptual framework of halalfFood supply chain integrity for Indonesia

3.2 Halal Slaughtering Process

In terms of slaughtering process, the procedure of slaughtering must follow the Syariah rules and regulation. The procedures of slaughtering have to make sure that the people who slaughtered must be a Muslim, and must use a sharp knife to slaughter those animals. Further, they have recite Tasmiyyah and must be followed by the owner of abbatoir. Lastly, the owner of abbatoir have to focus as well on the cleanliness and hygienes of abbatoir.

3.3 Halal Logistics

Logistics can be defined as the process of planning, implementing and controlling the efficient, effective flow and storage of goods, services and associated information from the point of origin to the point of consumption for the function of conforming to customer requirements (Roslan et al, 2016). They further said that the purpose of halal logistics is to ensure that Muslim consumers can consume the foods and beverages in the good condition. In this regard, Logistics management involving series of activities including conveyance, stowage, storeroom, stock or supply management, substance management, product arrangement, and customer service.

3.4 Halal Traceability

This study employs the traceability with the purpose to trace the status of halal of every stage in terms of food production process. The purpose of the traceability is to ensure that every level of food production process not contaminated the harm things based on Islamic law. The traceability concept also present information related the food undertaking process from the initial until end level of production, particularly concentrating on food ingredients. Zulfakar et al (2012) argued that the traceability process could help us to fully control the halal food supply chain by offering transparency information and intensify the halal integrity.

3.5 Halal Assurance System

According to Zulfakar et al (2011) Halal assurance system means that providing halal certification and halal standard to encourage the halal food supply chain integrity. The purpose of halal standard is to make sure that every player in halal industry must follow the halal standard determined by Islamic council in their country. So far, there are no halal standardized internationally due to every country come up with their own halal standard, including Indonesia and Malaysia. Meanwhile, halal certification means that the documents which stated that the products had fulfilled the Islamic requirements procedures and proven halal by Islamic council in it's country. MUI (Majelis Ulama Indonesia/Indonesia's Islamic Council) is the Islamic body which has authority to issue halal certificate in Indonesia.

3.6 Trust and Commitments

Trust and commitments are interconnected each other in creating halal food supply chain integrity. Muslim consumers buy halal food and beverages from halal shops due to trusting on them. They trust on Muslim sellers as they are Muslim who follow Islamic rules. Muslim consumers build trust on Muslim sellers as they sell halal products following Islamic law. Trust in halal supply chain integrity based on halal logo or halal certification provided by every Islamic council in every country in the world. Muslim also can purchase products from non-Muslim shops as long as they put halal logo in their shops. This halal logo or halal certification inform indirectly to Muslim buyers that the sellers or producers already fulfilled the Islamic requirements based on Islamic law. In terms of commitments means that all of the parties involved in halal food supply chain integrity must commit to make sure initial production until end of production are exempted from forbidden things.

3.7 Role of Government

The role of government is very crucial in the halal food supply chain integrity. So far, Indonesia's government collaborate with Indonesia's Islamic Council (Majelis Ulama Indonesia) in providing public agencies and training professional auditors to make sure that the industry players in the area of tourism, food and beverages, and others. Supporting from government and MUI can detect the fake halal logo or halal certification and give awareness the importance of halal for Muslim people. Halal not only focusing on forbidden things, but halal also concentrating on cleanliness and hygiene.

4 CONCLUSION

Halal integrity plays important role in supporting halal products. This study proposing the conceptual framework of halal food supply chain integrity for Indonesia. The conceptual framework composed of several procedures started from the initial until final steps. It covers halal animal feed, halal slaughtering process, halal logistics, halal traceability, halal assurance system (halal standard and halal certification), trust and commitments, and role of government. This study expect that the conceptual framework of halal food supply chain integrity can be used for industry players in the field of tourism, food and beverages, and others.

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