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A Study on Halal Supply Chain Awareness in Small and Medium Enterprise towards Halal Certification in Indonesia

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Abstract— **Halal is a standard rule that could not be-tolerated by Muslim community. The increasing variety of products and foods in Indonesia is one of the backgrounds of the legislation on halal product assurance certification. It aims to provide assurance status of the product to make the society feel confident to buy and consume the products. This study was conducted by using questionnaires to the food and beverage industry with the aim to determine the knowledge of the current industry needs and the awareness of the halal supply chain to participate in the certification program. The results showed, small medium enterprise (SME) industry participants already understand about the halal supply chain and halal certification but there are still many businesses have not registered and halal certified.**

Keywords— *Halal supply chain, awareness, certification, small medium enterprise*

1. Introduction

Halal is a major problem that was concerned by the Indonesian Ulama Council of Research Institute in Food, Drugs and Cosmetics (LPPOM-MUI). Coupled with the government that has enacted the Law Number 33 of 2014 on assurance certification for halal products. Assurance certification of halal products is one of the standard quality controls for halal food and beverage supply chain in Indonesia meet the criteria in terms of cleanliness and health.

The law mentioned about the products that enter, circulate and trade in the territory of Indonesia must be certified halal. LPPOM-MUI plans to officially implement the rule in October 2019. It will be a big challenge for the government and also the existing industry participants. However, current socialization conducted by the government to the industry participants do not seem to have a big impact. The industry participants also have to pay attention to their employees about the terms and conditions regarding the certification. The implementation of the certification requires the support of all the people to participate to support the success of this program.

Halal supply chain is important issue in Indonesia. Previous study has been done on the Millennial Generation Awareness about Halal Supply Chains in Food Products in Malaysia [1], the study stated that the awareness and perception of halal food supply chain in the millennial generation in Malaysia to grow rapidly. It is influenced by the millennial knowledge, understanding, attitudes, religious beliefs, and exposure from the role played by the Malaysian Position of Islamic Advancement (JAKIM). Previously, the research carried out at 100% halal supply chain awareness and demand for meat products found the majority of respondents from the three countries surveyed know the legal requirements of halal food and are willing to pay more for halal meat products with 100% halal supply chain assurance [2].

2. Literature Review

The research in Assessing Consumers' Perception, Knowledge and Religiosity on Malaysia's Halal Food Products concluded that the research showed the perception of consumers and their level of knowledge and religiosity has the difference between others [3]. Although more than 94% respondents are Muslim Halal knowledge, information and education by the government

agency obtained are considered less. In addition, this study also showed that about 40 to 50% of consumers have a high level of religiosity. It can be concluded that the level of religiosity may affect consciousness, perception and knowledge about the halal product. Then, the study about the non-Muslim consumers in the Research on Halal Food Acceptance among non-Muslim Consumers mentioned that the non-Muslim consumers have a positive view to the concept of halal and have the intention to buy halal food. This is a good opportunity for the producers of halal food who take seriously the non-Muslim community as one of their target markets [4].

Halal means permissible or allowed and *tayyiban* which means healthy, safe and nutritious. Allowed means that the food was not *haram* (prohibited) and halal in traditional Islamic law. Halal can be divided into two segments, which consist of products and services. Halal food is not only to fulfil the responsibilities of religion for Muslims, but halal food itself is the highest standard of safety, hygiene and quality assurance [5]. There is a greater likelihood of halal food becomes non-halal food because of the complicated handling point and parties involved in different types of significant processes according to the halal supply chain to every Muslim must abide by Islamic law. Halal is not only about food or raw materials to be prepared and processed, but also about the whole journey from source materials into the hands of consumers [6]. Thus, it will be one of the concerns for the products that already have their own market and demand. Either in the form of food, cosmetics, and pharmaceuticals.

The difference from the conventional supply chain and halal supply chain are the conventional supply chain focus on maximizing profits while meeting the demands of consumers. Instead, the primary goal of the halal supply chain is to expand the halal integrity in accordance with Sharia Law from the source to the point of consumer purchase [7]. Taking into the viewpoint of the society against halal concept can be considered as a medium for changing the way of life and the circumstances of the ideas in the interpretation of the quality, safety, health, and environment. Therefore, halal food is not only for Muslims and non-Muslims society can also buy and eat halal food.

Halal certification as a guarantee of the integrity of halal refers to the inspection and verification process of food from preparation, slaughtering,

ingredients, cleaning, handling, disinfectants, storage, processing, transport and distribution as well as management practices that the food has been prepared from materials that are allowed in a clean and hygienic condition accordance with Islamic law. Halal certification plays an important role as an instrument of good quality for manufacturers to identify and ensure the quality of their products are meet with the criteria of halal products in halal certification accordance with halal standards [8].

SMEs have a very important role for most economies in the world, especially in developing and growing countries, as the World Bank states that the formal SMEs contribute up to 60% of total employment and 40% of national income (GDP) in developing countries. These statistics would be significantly higher if inserted into the informal SMEs. Over the past few decades, the importance of halal supply chain has emerged as one of the essential elements of a development strategy including all stakeholders (customers, suppliers, and government) in the halal supply chain process.

This study presents the awareness of the SMEs industry participants in Indonesia regarding on halal supply chain to participate in a halal product assurance certification program. This study could be an illustration of how big the success and impact of the program. In addition, this study performed by using descriptive statistical methods to describe the collected data.

3. Materials & Method

This research conducted in descriptive research method that is gathering information about current conditions focused on the awareness of industry participants on the halal supply chain and the impact of halal certification programs [9]. The primaries of data used came from answers provided by industry participants through questionnaires made. While the data used for secondary is the result of research or literature related to the halal supply chain problems. The questionnaire was designed by taking a number of statements from previous related research and several additional statements to complement the research needs.

The questionnaire has two parts and items within, namely the first part that focuses on the demographics of the respondents (gender, age, religion, education and whether the SMEs has a halal certificate or not). The second part focus on

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the answers of industry participants in terms of general knowledge about the halal supply chain and certification programs, current product sales process practices, behaviour and preferences when selling products, awareness and impact of supply chain lawful applications to Participate in halal certification programs. The statement uses the 5-point Likert scale range answer.

4. Results & Discussion

The selected sample comes from a population that is expected to represent the population as a whole. The sampling method used convenience sampling targeted respondents of 50 SMEs food industry spread in North Jakarta, South Jakarta, Central Jakarta, East Jakarta and West Jakarta. The number of respondents is expected to be sufficient because more than the minimum provisions of 30 respondents which can describe the awareness of the halal supply chain industry participants to participate in halal certification programs.

The result is tested using Cronbach's Alpha to measure the internal consistency of the data that can estimate the reliability of existing sample data [10]. Measurements are stated to be reliable if they produce the same results even though multiple measurements are made. Cronbach's Alpha values are from 0 to 1.

Table 1. Reliability Result

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.923	.926	20

Table 1 shows the result of reliability testing using SPSS, the value of 0.923 is produced where the value is almost close to 1 and greater than table R (0.2787) with a significance level of 5%. Thus, the questionnaire can be trusted.

Table 2 describes the demographic profile of the respondents in terms of gender, age, religion, education and ownership of halal certificate. In terms of gender, the percentage of female respondent in SMEs industry (64%) more than men (36%). Most industry participants are on the range of the age of 26-35 years (40%). In this study there were 84% adherent of the religion of Islam as the majority religion in Indonesia. Most of the SMEs

industry participants are graduates of the Junior High School - Senior High School.

Table 2 lists 43 out of 50 respondents who had, or 86% respondent not yet have a halal certificate. Most industry participants still feel unnecessary to process the certificate, whereas using the halal certification principles and procedures will ensure that the food product is good, safe and suitable for consumption. At the countries that have a halal certification bodies such as Singapore and Malaysia. Singapore started halal certification agency in 1972 which is managed by the Majlis Ulama Islam Singapore (MUIS). In Malaysia, certification and halal logo issued by bodies authorized by the Malaysian government and is led by the Malaysian Department of Islamic Development (JAKIM) [11]. In Indonesia, the halal certification agency in charge is LPPOM MUI that stood since 1989 the urgency of foods industry to register their products for the halal certificate authenticated is important to define rules of halal food product certification in Indonesia. In addition to ensuring that the products are halal, but also in a good quality [12].

Table 2. Demographic Data

Variables		Frequency	Percentage (%)
Sex	Female	32	64
	Male	18	36
Age	17-25	7	14
	26-35	20	40
	36-45	13	26
	> 45	10	20
Religion	Moslem	42	84
	Christian	3	6
	Catholic	5	10
	Hindu	0	0
	Buddha	0	0
Education	JHS-SHS	41	82
	Diploma	6	12
	Bachelor	3	6
Have Certificate?	Yes	7	14
	No.	43	86

Table 3 lists the 5 statements of the variables to understand the current supply chain industries regarding to halal certification. The majority of respondents claimed to have known the criteria of a halal foods product with the highest average mean score (4.3). Respondents also know how to process and stored each halal food product (4:26). The halal foods and non-halal foods is not stored in the same storage or cold room even though the temperature is maintained. This argument is in line with the

storage of food because of contamination from other sources can alter the characteristics of foods, which might have dangerous consequences. Therefore, lawful procedures in handling and storage, if known by consumers, will result in a higher purchase intention for their preservation of safe and uncontaminated [13]. Besides that, most of respondents already know what it is certified halal (4.12).

Table 3. Mean for Understanding Variables

Construct	Var	Average Mean Score
Understanding	U1	4,300
	U2	4,260
	U3	4120
	U5	4120
	U4	3,920

Many also understand that in accordance with Law Number 33 of 2014 that all products must have a halal certificate in October 2019 later on (4.12). But it seems they do not fully understand to get the halal certificate (3.92). According to the Chairman of the Indonesian Ulama Council Bureau of Food, Drug, and Cosmetic Research (MUI LPPOM), 63% of products in Indonesia does not have a halal certificate. It is said that of 113 thousand products registered, only 41 thousand products have been labelled as halal. Many products are not labelled halal caused no maximum protection for consumers, especially Muslims. Therefore, MUI (Majelis Ulama Indonesia) as Indonesian certification body must strive to encourage industries to get halal-certified products [14].

Table 4 presents current practice variables to find out how the process work practices in industry participants at this time in accordance with the existing understanding. Respondents felt has been processing its products according to regulations of the manufacturing process through to storage (4:24). Respondents also admitted that they do not mix with the product halal products are not halal (4.14). Halal products are often separated from non-halal products when sold in stores for example in Malaysian hypermarket [15]. Drinks haram (e.g., alcohol) is separated from other beverages, are stacked on a separate shelf, and non-halal labelled so that consumers are aware of the beverage ingredients. As for the non-halal meat is pork, most hypermarket has its own non-halal chiller or space to non-Muslims. But apparently the respondents

also felt that is difficult to monitor the overall integrity of halal products are from the manufacturing process through to storage (4.12).

Table 4. Mean for Current Practice Variables

Construct	Variable	Average Mean Score
Current Practice	CP1	4,240
	CP2	4,140
	CP5	4120
	CP4	4,080
	CP3	3,940

Although some respondents already have a high health and hygiene standards (4:08). But the majority of respondents felt that it is not entirely sure whether the team or co-workers in the SMEs fully understand how to process halal products (3.94).

Table 4 lists the awareness variables to find out the awareness of SMEs industry participants about the halal supply chain and whether they feel it is matter for the industry. There are 5 statements that expected to describe these variables. The majority of respondents strongly feel that with the halal logo on the product packaging is considering as important (4.24). Manufacturers must have halal certification symbol to show that their products comply with Islamic law [16]. Halal certificate communicates high quality and standard of halal products, namely *halalan* (permissible) and *toyyiban* (safe, clean, nutritious, and good quality). Respondents also felt that their halal certificates displayed or placed at the site is also an important thing (4.12). They also felt that the transparency and uniformity of the product delivery process is also important as a good image of their industry (4.1).

But they also feel that the price is not an important factor affecting consumers' desire to buy when compared to buying a product that is not halal (4:08). These findings met the previous research that respondents were keen to pay for halal logistics, as demand and costs for halal logistics services [17]. They also felt that the separation products are halal products is not halal is important (4:02).

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Table 5. Mean for Awareness Variables

Construct	Variable	Average Mean Score
Awareness	A1	4,240
	A2	4120
	A5	4,100
	A4	4,080
	A3	4,020

In Table 5, have five statements as the last variable. This variable will describe the perceived impact in industry participants if their business has halal certification. The majority of respondents believe that if they have halal certificate then they can develop their SMEs market share (4.16). Respondents also found halal certificate can guarantee a product of the manufacturing process through to products storage (4.14). Respondents also felt that if the halal certificate can also develop consumer confidence in purchasing products in the SMEs (4.14).

Table 6. Mean for Impact Variables

Construct	Variable	Average Mean Score
Impact	I4	4,160
	I1	4,140
	I2	4,140
	I3	4,100
	I5	4,100

In addition, respondents felt that the halal certificate can develop SMEs brand in societies (4.1). The respondents also feel if the business have a halal certificate, they can develop sales value compared to competitors (4.1). The 15th Malaysia International Showcase reported that business participants in halal industry can make a profit through the halal sector where the Halal Industry Development Corporation reported the Muslim population is projected to increase approximately 27% of the total world population in 2030 and exports of halal will contribute higher in 2020. The positive impact on the halal market in the future will motivate SMEs to adopt the halal supply chain in their business [18].

Once known which statement best describes each variable, to test the correlation between variables that can determine whether each variable is dependent or correlated with other variables. The test results can be seen in Table 7 where each variable has a positive relationship.

Table 7. Correlation for All Variables

Variables	Understanding	Current Practice	Awareness	Impact
Understanding	1.000	0.669	0.733	0.804
Current Practice	0.669	1.000	0.693	0.752
Awareness	0.733	0.693	1.000	0.819
Impact	0.804	0.752	0.819	1.000

Correlation is significant at the 0,01 level (2-tailed)

5. Conclusion

The results showed that the majority of respondents know of their halal products to sell and produce. It can be seen that the average value is almost equal and not much different. In addition, all variables correlation results also showed that all the variables are positively related to each other. However, there are still many SMEs do not have a halal certificate. Therefore, in response to government regulations on halal certification program in October 2019, the government should put more effort in practice. The government must be able to create movement training for existing SMEs, so the industry participants undertake to halal certification. In addition, there are also many industry participants lack payment information in regard to propose a halal certificate. Therefore, LPPOM MUI has a big challenge to instil the confidence to the industry as well as the implementation and monitoring of the certification itself. So that industry participants know the importance of certification in the market will bring a better impact both in terms of transportation, and other facilities.

Because of Indonesian is a predominantly Muslim population, halal is a big issue in terms of concern for consumers, food producers, and retailers. The emergence of consumer knowledge about halal food will enable them to select products that comply with Sharia. This attention to the role of legal knowledge that could significantly impact consumer purchase intentions. The consumer could gain the benefit in terms of highlighting and disseminating knowledge on how to halal standards are implemented throughout the supply chain. This research could be emphasized for other Muslim countries as well.

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