



Halal Food Supply Chain Knowledge and Purchase Intention

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ABSTRACT

This study examines the influence of halal supply chain knowledge on Muslim and non-Muslim consumers' intention to purchase halal food products. This includes knowledge of halal feed, the halal slaughtering process, halal handling and storage, halal packaging, halal logistics, and halal retail. Convenience sampling was used as the sampling method for the study. Targeted respondents were both Muslim and non-Muslim consumers in Selangor, Kuala Lumpur, and Putrajaya (Klang Valley) in Malaysia. Based on the suggestion from Roscoe (1975), 360 respondents were targeted for this study. Out of 360 questionnaires distributed, 304 (84 percent) were usable and valid for further analysis. This study focused on knowledge supply chains and further identified that knowledge has a direct influence on consumers' purchase intention for halal food. Knowledge of halal slaughtering, storage, and packaging, in particular, are among the best predictors of consumers' purchase intention for halal food. Shaari and Arifin (2010) found that knowledge is a key influence in halal purchase intention. However, in terms of the supply chain, knowledge of the process tends to be focused around people in the industry and not general consumers. Hence, this study investigated how far consumers' knowledge of halal supply chains affects their purchase intention.

Keywords: halal supply chain, knowledge, purchase intention, Muslims, Malaysia.

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Any remaining errors or omissions rest solely with the author(s) of this paper.

INTRODUCTION

The halal food supply chain is a significant issue, especially for Muslim consumers, food manufacturers, and food suppliers that cater to Muslim markets. Halal supply chain management is the management of a halal network with the objective to extend halal integrity from the source to the consumer purchase point (Tieman, van der Vorst, and Ghazali, 2012). Among the integral activities and issues within halal supply chains include halal food integrity (food ingredients, cleanliness, safety, health, nutrition, and quality), halal slaughtering (poultry and meat slaughtering processes that should comply with Syariah principles), and halal logistics and marketing (storage, distribution, and display of halal and haram products) (Omar and Jaafar, 2011).

However, according to Ab Talib, Abdul Hamid, and Zulfakar (2015), the principles of the halal supply chain are still unclear, with different researchers suggesting their own ideas for a halal supply chain. Thus, the question in this study becomes: does consumer knowledge of halal supply chains affect their purchase intention for halal products?

The Theory of Planned Behavior (TPB) served as a theoretical basis for this framework. TPB and Theory of Reasoned Action (TRA)—the precedent theoretical version of TPB—have been widely used in studies related to halal food studies (Mukhtar and Butt, 2012; Abdul Aziz and Chok, 2012; Alam and Sayuti, 2011; Lada, Tanakinjal, and Amin, 2009; Bonne and Verbeke, 2008; Karijin, Iris, Florence, and Wim, 2007). Most of these studies found significant relationships between attitude, social norms, and perceived behavioral control and intention to consume halal food. However, in this study, instead of the attitude, subjective norms, and perceived behavioral control, knowledge of halal supply chains is proposed as an influencer of consumers' purchase intention.

According to Tuu and Olsen (2012), knowledge of products affects consumers' purchase intention, especially for new products. Hence, it is assumed that knowledge of the supply chain of halal products, i.e., what and how the products were produced, transported and stored, will impact consumers' intention to buy. Since halal supply chains comprise different components, this study will adopt dimensions of halal supply chains from the framework proposed by Omar and Jaafar (2011), extending the dimensions to include marketing aspects of supply chains. The dimensions included in this study are halal animal feed, halal slaughtering, halal handling and storage, halal packaging, halal logistics, and halal retail.

This study, by far, is the initial effort to test consumers' knowledge of each dimension of halal supply chains on their purchase intention behavior. Measuring

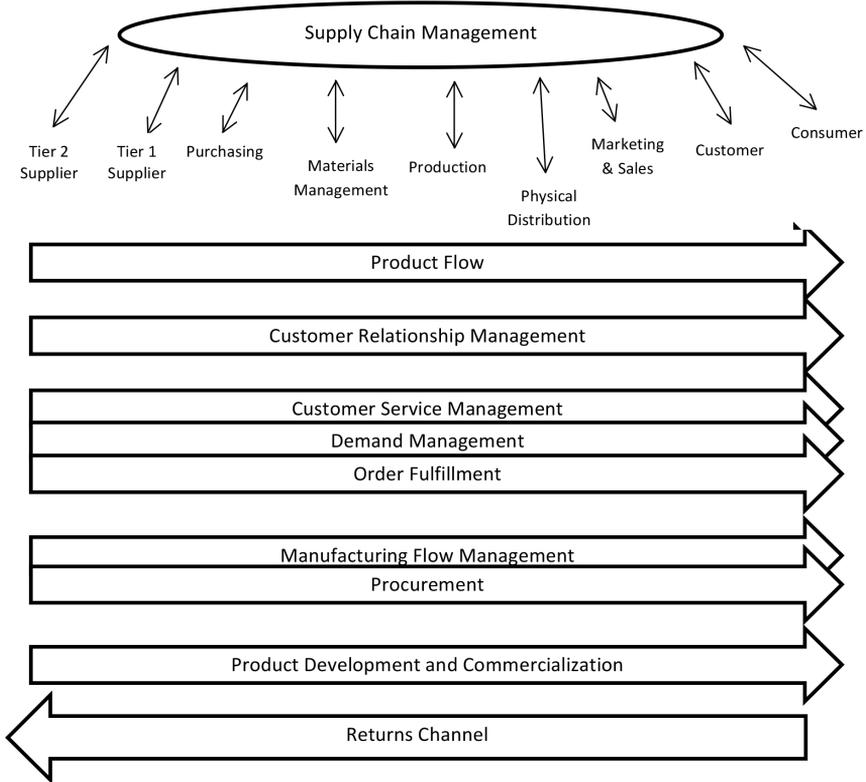
the extent of consumer knowledge regarding halal food supply chains is thus critical for marketers. This is supported by Shaari and Arifin (2010), who found that knowledge is a key factor that influences halal product purchase intention.

Differences between conventional supply chains and halal supply chains

Supply chain management (SCM) as defined by Hugos (2009) is the coordination of production, inventory, location, and transportation along the supply chain to achieve the best mix of responsiveness and efficiency for the market served. The objective of a supply chain is to foster customer satisfaction (Govil and Proth, 2002), maximize the overall value generated (Chopra and Peter, 2004), and be an efficient and cost effective part of the whole system. The conventional supply chain framework starts with raw material, inbound logistics, warehouse, production, storage, outbound logistics, and marketing, and it ends with sales and customer service (Cooper, Lambert, and Pagh, 1997).

However, according to Halal Industry Development Corporation (HDC) (2013a), the halal supply chain includes all activities, such as procurement, preparation of halal ingredients for manufacturing, and delivery of the final product to consumers. The process of manufacturing should ensure the separation of halal ingredients from non-halal ingredients, such as pork, alcohol, or any related products. The halal supply chain also ensures halal animal feed, animal welfare, and proper segregation between halal and non-halal food during distribution in storage, handling, transportation, and retailing. The slaughter process is based on Islamic regulations in which Muslims use sharp knives and recite the *bismillah* and related prayers before the slaughter process (Al-Qardawi, 1995).

In short, the objectives of conventional and halal supply chains are different. Conventional supply chains focus on maximizing profits while fulfilling consumer demands. In contrast, halal supply chains' main objective is to extend halal integrity in accordance with Syariah law from source to the point of consumer purchase (Tieman, van der Vorst and Che Ghazali, 2012; Mohd Bahrudin, Ilyas and Desa, 2011). Taking into account consumers' point of view, the concept of halal can be considered a catalyst for change in the way people live and their ideas and interpretations of quality, safety, health, and the environment. This is crucial, as Islam commands all mankind to consume only permissible (Syariah-abiding), nutritious, healthy, quality food. Hence, halal food is not only for Muslims; non-Muslims can also buy and consume halal food.



Supply chain management components

Planning and control	Product structure
Work structure	Management methods
Organization structure	Power and leadership structure
Product flow facility structure	Risk and reward structure
Information flow facility structure	Culture and attitude

Source: Cooper, Lambert, and Pagh (1997)

Figure 1 Conventional supply chain framework

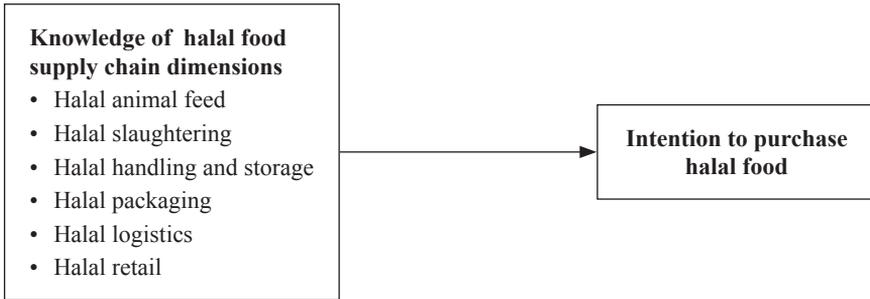
Table 1 Differences between conventional and halal supply chains

Elements	Conventional supply chain	Halal supply chain
Definition	Involves the coordination of production, inventory, location, and transportation between the participants in the supply chain, with the aim to achieve the best responsiveness and efficiency in the market presented	Covers everything from the preparation and enforcement of halal ingredients to be manufactured and delivering the final product to the customer, according to Syariah law.
Objective	Minimize cost, maximize profit	Preserves the integrity of halal food and to ensure the food is halal and toyyib.
Cross-contamination occurrence	Possibilities of cross-contamination exists	Avoids direct contact with haram goods, manages the risk of cross-contamination between halal and haram goods, ensures supply chain management is in line with Muslim consumers' perception (Tieman, 2011)
Segregation needs	Mixing of halal and non-halal cargo	Segregation of halal products from non-halal products; requires dedicated halal facilities

Adapted from: Mohd Bahrudin et al. (2011)

Research Framework and Hypotheses

This study has adapted the dimensions of halal supply chains from the framework proposed by Omar and Jaafar (2011). Their framework was chosen because it is among the first to propose a framework for halal supply chains, and its dimensions are clearly identified. This made it easier to extend the framework further. Omar and Jaafar (2011) proposed that halal animal feed, halal slaughtering, and proper segregation are part of the halal supply chain. Since this study focuses on marketing aspects, it adapted these dimensions to *knowledge* of halal animal feed, halal slaughtering, and proper segregation, and it hypothesized direct relationships between them and consumer purchase intention. In addition, this study has extended 'proper segregation' into four different variables: proper segregation during storage, packaging, logistics, and retail. Figure 2 shows the conceptual framework for this study.



Source: Adopted and modified based on Omar and Jaafar (2011)

Figure 2 Conceptual framework of study

Halal animal feed

According to Syariah law, animals that are to be slaughtered must be fed with good, clean, permitted, and legally nutritious food in order to produce good halal meat. According to Omar and Jaafar (2011), it is necessary to ensure that food given to animals is halal. Bonne and Verbeke (2008) found that many Islamic religious scholars agree that Muslims are forbidden from consuming animals that eat filth. Animal food also should not contain any animal hormones, such as pork enzymes or steroids (Department of Veterinary Services Malaysia, n.d.). In addition, the feeding materials cannot contain any genetically modified organisms from non-halal animals (Malaysian Standard MS 1500, 2004). The concept of halal animal feed also covers animal medication, which should be halal as well. In addition, Syariah law maintains that the animals must be of an acceptable species before being slaughtered for consumption. Thus, if consumers, Muslims and non-Muslims, knew the detailed and strict requirements for animal feed, according to Syariah hygienic, safety, and health factors, they would be more inclined to purchase halal products. Based on this argument, it is proposed that:

H1 : There is a significant relationship between knowledge of halal animal feed and purchase intention for halal food products.

Halal slaughtering

There are specific requirements for the slaughtering process, according to Syariah law. According to Qardawi (1995), the slaughterer must be a Muslim. A sharp knife is used to slaughter the animal, and *tasmiyyah* ('In the name of Allah') is recited. Islam stresses animal welfare before and after the slaughter. Animals are treated in a good manner to ensure they are not stressed or excited prior to slaughter; they are nourished, well-rested, and given drinking water while in the holding area (Hajimohammadi, Ehrampoush, and Hajimohammadi, 2014; Bonne and Verbeke, 2008). The sharp knife that is used for slaughtering ensures the animal's blood is properly drained. In addition, the cleanliness and physical environment of the abattoirs are also considered for halal certification. Taking these procedures into consideration, it is argued that consumers who know about halal slaughtering will be more likely to purchase halal food products. Hence, it is proposed that:

H2 : There is a significant relationship between knowledge of halal slaughtering and purchase intention for halal food products.

Halal handling and storage

At this stage, the primary responsibility of slaughterers and meat handlers is to monitor the segregation of halal products from non-halal products (Tieman, *et al.*, 2012). First, the handling material for halal food must be clean and safe to be consumed by Muslim consumers (Omar and Jaafar, 2011). It is imperative that food manufacturers ensure that none of the equipment and machinery is associated with *haram* (non-permissible) or *najs* (ritually unclean) materials (Che Man and Sazili, 2010). For instance, forklifts that are used to carry non-halal products should not be used to carry halal products. This is to prevent the contamination that may cause halal from becoming *haram*. At the warehouse stage, it is essential to monitor the halal products to prevent mixing with non-halal products.

For halal food handling, the brush used as bakery equipment should be synthetic (i.e., plastic) and not made from any kind of animal hair (i.e., pig). Therefore, a halal supply chain should ensure that there is no contamination between halal and *haram* or anything in between (Omar and Jaafar, 2011). Halal and non-halal food should not be stored in the same storage area or any cold room even if the temperature

is maintained (Omar and Jaafar, 2011; Alam and Sayuti, 2011; Ngah, Zainuddin, and Thurasamy, 2015). These arguments are in line with food safekeeping because contamination from other sources may change the characteristics of the food, which may have hazardous consequences. Hence, halal procedures in handling and storage, if known by consumers, will result in a higher purchase intention because of the preservation of safe and non-contaminated products. Thus, it is proposed that:

H3 : There is a significant relationship between knowledge of halal handling and storage and purchase intention for halal food products.

Halal packaging

One source of consumer information is the product label that is displayed on the product package. In general, packaging must perform the two basic functions of marketing and logistics. The marketing function is to provide product information and promote products through the use of color, size, brand names, and the halal logo (Awan, Siddiquei, and Haider, 2015). Meanwhile, the basic functions of packaging are logistic functions, including arranging, protecting and identifying products and materials before they reach the customer. Accordingly, the general functions of packaging have the same functions for halal food products.

In addition, packaging materials for halal products should also be made from materials that are halal (Omar and Jaafar, 2011). Halal producers must have a halal certification symbol to indicate that their products abide by Syariah law (Awan, Siddiquei, and Haider, 2015). The halal certificate communicates the high quality and standard of halal products, which are *halalan* (permissible) *toyyiban* (safe, clean, nutritious, and of good quality) (HDC, 2013). As such, it is argued that consumers who have knowledge about halal product packaging will be more likely to purchase halal products compared to non-halal products. Hence, it is proposed that:

H4 : There is a significant relationship between knowledge of halal packaging and purchase intention for halal food products.

Halal logistics

Based on Khan (2009), the implementation of ‘farm to table’ operations in the halal industry has opened up opportunities for those involved in the logistics industry including ports, shipping and freight forwarding, warehousing, and handling

facilities. In terms of the transportation of halal products, halal and non-halal goods are carried and loaded in separate containers. This is to avoid those items from mixing with one another and to avoid contamination (Lodhi, 2009). While in storage or warehousing, halal products are segregated from non-halal products throughout the warehouse processes, namely receiving, stocking, storage, cross docking, order picking, and shipping (Tieman, Ghazali and van der Vorst, 2013; Department of Standards Malaysia, 2010).

In certain cases, ritual cleansing exercises of trucks or containers that previously transported *haram* products may be necessary to ensure there is no contamination when transporting halal products. In Islam, the need for ritual cleansing and the way it is performed differ from one sect to another. To protect halal food, logistics companies provide some logistical facilities specifically to handle halal food products. For example, Kontena National and Malaysia International Shipping Company (MISC) provide special facilities for halal logistics, such as halal transportation, halal shipping, dedicated containers for halal food, and ritual cleansing services for containers. MISC is the first logistics company in Malaysia to receive recognition from the Department of Islamic Development Malaysia (JAKIM) for their halal transportation logistics (Kontena Malaysia Berhad, 2014). Thus, consumers who have knowledge of how halal products are carefully segregated to ensure their safety from contamination will be more likely to purchase halal products. Hence, it is argued that:

H5 : There is a significant relationship between knowledge of halal logistics and purchase intention for halal food products.

Halal retail

The distribution and retailing of halal food is also an important aspect to be considered. Food could be contaminated while being distributed to retailers or while on display in the retail stores. Hence, halal products are often segregated from non-halal products while on sale in stores (Shahijan, Rezaei, Preece, and Ismail, 2014). For example, in hypermarkets in Malaysia, haram drinks (i.e., alcoholic drinks) are separated from other drinks, stacked on separate shelves, and labeled 'non-halal' so that consumers are aware of the drinks' ingredients (Tieman, Ghazali and van der Vorst, 2013; Yusof, Everett and Cone, 2011). As for non-halal meat (i.e., pork), most hypermarkets have its own 'non-halal' chiller or room for non-Muslim consumers buying the produce (Yusof, Everett, and Cone, 2011). According to Hashim, Hussin and Zainal (2014), it is very pertinent for Islamic retailers to

provide a Confirming Atmosphere to its customers. Halal certification is an example of this whereby retailers which clearly indicate their halal products in stores by using halal certifications would be highly likely patronized by customers. Hence, based on the arguments above, Muslims and non-Muslims arguably prefer halal products if they have knowledge of how halal products are handled in the retailing stage. It is important that products that have been ensured of 'halalness' in previous stages in the supply chain maintain their value to the end. Hence, it is proposed that:

H6 : There is a significant relationship between knowledge of halal retail and purchase intention for halal food products.

Methodology

Convenience sampling was used as the sampling method for this study. Targeted respondents were both Muslim and non-Muslim consumers in Selangor, Kuala Lumpur, and Putrajaya (Klang Valley) in Malaysia. Non-Muslim consumers were also included in the study because current demand for halal products includes non-Muslim demand because they believe that halal certified products are hygienic and safe to be consumed. Thus, it is crucial to understand how far their knowledge of halal supply chains affects their purchase intention for these products.

A survey questionnaire was used as the research instrument for the study. The questionnaire was divided into four sections; Section A (consumer knowledge on halal food supply chain); Section B (intention to purchase halal food products); Section C (source of information); and Section D (demographic). A 5-point Likert scale was used to gauge consumers' responses based on their degree of agreement with the statements. The scale ranged from (1) Strongly Disagree, (2) Disagree, (3) Neither Agree or Disagree, (4) Disagree and (5) Strongly Agree. A different Likert scale was also adopted for questions in Section C, focusing on identifying the degree of frequency information on halal food was obtained and from which sources. The scale ranged from (1) Never, (2) Rarely, (3) Sometimes, (4) Most of the time, and (5) Always. The questionnaire was available in English and Malay. Back translation was used to translate the original English language questions to Malay. Table 2 illustrates the source of items adapted from various authors for each variable in the study.

Based on the suggestion from Roscoe (1975), 360 respondents were targeted for this study. Out of 360 questionnaires distributed, 304 (84 percent) were usable and valid for further analysis.

Table 2 Summary of items used in the questionnaire

Construct	Question items	Source
Halal animal feed	5	Omar and Jaafar (2011)
Halal slaughtering	5	Omar and Jaafar (2011), Bonne and Verbeke (2008)
Halal handling and storage	10	Bruil (2010)
Halal packaging	5	Omar and Jaafar (2011)
Halal logistics	5	Bruil (2010)
Purchase intention	6	Ahmad (2011)

Analysis and Findings

A majority of the respondents were female (63.8%) and 20–35 years old. Out of 304 respondents, 73 were non-Muslim (24%) and the rest were Muslims. For further information regarding the background of the respondents, please refer to Table 3.

Table 3 Demographic profile of respondents

Item	Frequency (n)	Percentage (%)
Gender		
Male	110	36.2
Female	194	63.8
Total	304	100.0
Age Group		
20–35	237	78.0
36–50	63	20.7
51–65	3	1.0
>65	1	0.3
Total	304	100.0
Religion		
Muslim	231	76.0
Non-Muslim	73	24.0
Total	304	100.0
Highest Education		
Secondary	47	15.5
Diploma	89	29.3
Bachelor	87	28.6
Master	76	25.0
PhD	5	1.6
Total	304	100.0

Table 3 (Cont.)

Income		
< RM1500	162	53.3
RM 1501–3000	69	22.7
RM 3001–4500	50	16.4
> RM 4500	23	7.6
Total	304	100.0
Employment		
Government sector	133	43.8
Private sector	53	17.4
Student	110	36.2
Unemployed	8	2.6
Total	304	100.0

Reliability Test

Reliability analysis was done before proceeding to further analysis (see Table 4). The Cronbach's Alpha test results obtained in this study are acceptable (>0.6) (Nunnally, 1978).

Table 4 Cronbach's Alpha test results

Construct	Number of items	Cronbach's Alpha (n=304)
Halal animal feed	5	0.844
Halal slaughtering	5	0.912
Halal handling and storage	5	0.757
Halal packaging	5	0.845
Halal logistics	5	0.691
Halal retail	5	0.733

Multiple linear regressions

Regression analysis was used to analyze the effect of knowledge of halal food supply chains (independent variable) on their halal purchase. The R-square result is 0.699 (refer to Table 5), which means that 70 percent of the variance in the dependent variable (purchase intention) can be predicted from the combination of all independent variables.

Table 5 Result of multiple regression—Model summary

Multiple correlation coefficient (R)	R-square (R ²)	Adjusted R-square	Std. error of the estimate
.836 ^a	.699	.693	.49420

Regression analysis found that three dimensions, halal slaughtering, halal handling and storage, and halal packaging, played important roles in influencing purchase intention for halal products (refer to Table 6). The most significant variables that explain purchase intention are halal slaughtering ($\beta=0.470$, $p=0.000$), storage and handling ($\beta=0.162$, $p=0.010$), and packaging ($\beta=0.156$, $p=0.014$). Meanwhile, halal animal feed, logistics, and retail have no significance in consumers' purchase intention.

Table 6 Result of multiple regression analysis (N=304)

Variables	Unstandardized coefficient B	Standardized coefficient β	Sig value or p-value
(Constant)	-.803		.000
Halal animal feed (HAF)	-.017	-.015	.759
Halal slaughtering (SL)	.574	.470	.000
Halal handling and storage (ST)	.198	.162	.010
Halal packaging (PACK)	.225	.156	.014
Halal logistics (TR)	.143	.115	.068
Halal retail (RT)	.045	.036	.555

F value= 114.870; Sig. F=.000; dependent variable=purchase intention

Discussion of Results

This study provides a platform or foundation for future research in this area due to the fact that past researchers emphasized only halal food logistics instead of the complete halal food supply chain. This study is the first known research to investigate the relationship between each of the components of halal food supply chain knowledge and purchase intention. Findings have indicated that knowledge about halal slaughtering, handling and storage, and packaging, in particular, is the best predictor of consumers' purchase intention for halal food. The findings are supported by Awan, Siddiquei, and Haider (2015) who found that consumers pay

heavy attention to halal marketing, including the existence of halal certification on the packaging of products. The study by Ngah, Zainuddin, and Thurasamy (2015) on the willingness organizations to adopt halal practices illustrates how having awareness or knowledge of halal handling and storage motivates them to adopt the practice. This implies that consumers might also have the same motivation given appropriate knowledge about halal handling and storage.

On the other hand, knowledge about halal retail, halal animal feed and halal logistics do not seem to be an important predictor of consumers' intention to buy halal products. This is in contrast to the study by Tieman, Ghazali, and van der Vorst (2013) who indicate that Muslims in Malaysia require a high level of segregation for halal products as they go through the logistics and retail systems. They are even willing to pay higher price for halal products that have gone through these systems. An explanation for this study's findings might be attributed to the lesser exposure to knowledge about halal animal feed, halal retail, and halal logistics among Muslims. Normally, when questions about halal are posed, the practice of slaughtering and handling are mentioned more so than other halal aspects.

The change in economic environment, globalization, advancements in the food technology industry, and the changing attitude of consumers towards food consumption pose a tough challenge for the halal food industry. The struggle to effectively manage consumers' interest and demand and attract future consumers has motivated food industry producers to implement different techniques and different marketing approaches to stimulate halal product consumption compared to regular products (Lada *et al.*, 2009). Therefore, the findings of this study will be useful for manufacturers and marketers in Malaysia by providing them with an overview of consumers' purchase intention for halal food products. This study intends to provide new and valuable information to manufacturers and marketers in the halal food industry regarding knowledge of halal food supply chains as one of the determinants of consumer's intention to purchase halal food.

In order to satisfy customers' demand and preference for halal food, manufacturers and marketers must consider using halal certification and the halal logo as a way to convince consumers of the halal status of the product to be purchased. Apart from the halal certification and logo, information on the ingredients should be communicated to consumers, as today's consumers are more likely to be careful in choosing their diet.

It is very important that manufacturers and marketers adhere to Syariah requirements in handling and preparing halal food. Customers require that manufacturers and retailers provide special facilities to ensure no mixing of halal with non-halal food during either storage or transportation. These efforts can protect the integrity of halal and attract more potential users. The findings of this study

have shown that with an increase of customers' awareness and knowledge about halal food, firms involved in the distribution channel, such as the manufacturers and retailers in the halal food industry, need to be aware of halal issues regarding the acceptance, attitude, and behavioral intention of consumers. Finally, this research will be very useful for government agencies, (particularly JAKIM), religious associations, consumer associations, and other related agencies in setting up effective and efficient strategies to increase consumer understanding and awareness, as they become more careful in the selection of food products.

CONCLUSION

It is inevitable that global customers will be more cautious about the food that they consume. As customers become more sophisticated, producers of halal food need to be more focused on the quality of their products, which requires emphasis on the production and delivery of halal products. This means that the movement of raw material to the packaging and storage of halal food must be strictly observed and in accordance with the Syariah requirements.

Since Malaysia's population is predominantly Muslim, halal issues are a major concern for consumers, food manufacturers, and retailers. The rise of consumer knowledge regarding halal food and goods will enable them to choose products that are Syariah compliant. This study highlights the role of knowledge of halal supply chains and proposes that this significantly influences consumers' purchase intention. However, for a better perspective of halal supply chain management, future research should further explore the variables of halal slaughtering, halal handling and storage, and halal packaging in order to determine why and how these particular dimensions play a larger role in halal purchase intention. Furthermore, researchers can also focus on each of the halal supply chain variables proposed in this framework (e.g., halal logistics, halal retail, halal packaging) and conduct in-depth studies on their implementation in a particular industry. These studies will benefit consumers in terms of highlighting and disseminating knowledge of how halal standards are implemented throughout the supply chain.

REFERENCES

- Abdul Aziz, Y. and Chok, N.V. (2012) The Role of Halal Awareness and Halal Certification in Influencing Non-Muslims' Purchase Intention. Paper presented at the 3rd *International Conference on Business and Economic Research Proceeding*, Bandung, Indonesia.
- Ab Talib, M. S., Abdul Hamid, A. B. and Zulfakar, M. H. (2015) Halal Supply Chain Critical Success Factors: A Literature Review. *Journal of Islamic Marketing*, 6(1), 44–71.

- Ahmad, N. (2011) *Intention to Purchase Halal Products Among Consumers* [Online] Available at: http://www.etd.uum.my/2790/1/Nur_Haslizatul_Liza_Ahmad.pdf [Accessed July 8, 2014].
- Alam, S. S. and Sayuti, N. M. (2011) Applying the Theory of Planned Behavior (TPB) in Halal Food Purchasing. *International Journal of Commerce and Management*, 21(1), 8–20.
- Al-Qardawi, Y. (1995) *The Lawful and the Prohibited in Islam (Al-Halawal Haram Fil Islam)*. Kuala Lumpur: Islamic Book Trust.
- Awan, H. M., Siddiquei, A. N., and Haider, Z. (2015) Factors Affecting Halal Purchase Intention—Evidence From Pakistan’s Halal Food Sector. *Management Research Review*, 38(6), 640–660.
- Bonne, K. and Verbeke, W. (2008). Muslim Consumer Trust in Halal Meat Status and Control in Belgium. *Meat Science*, 79, 113–123.
- Bruil, R. R. (2010) Halal Logistics and the Impact of Consumer Perceptions [Online] Available at: http://www.essay_utwente.nl [Accessed July 8, 2014].
- Chopra, S. and Peter, M. (2004). *Supply Chain Management, 2nd ed.* Upper Saddle River: Pearson Prentice Hall.
- Cooper, M., Lambert, D., and Pagh, J. (1997) Supply Chain Management: More Than a New Name for Logistics. *International Journal of Logistics Management*, 8(1), 1–14.
- Department of Standards Malaysia (2010) MS 2400-1:2010 (P): Halalan-Toyyiban Assurance Pipeline—Part 1: Management System Requirements for Transportation of Goods and/or Cargo Chain Services. Department of Standards Malaysia.
- Department of Veterinary Services Malaysia (n.d). Feed Act and Halal Feed Industry [Online] Available at: <http://www.hdcglobal.com/upload-web/cms-editor-files/b08c8a04-c946-4ebe-99b9-2492bd32fcfc/file/21.pdf> [Accessed August 10, 2015].
- Govil, M. and Proth, J. M. (2002) *Supply Chain Design and Management: Strategic and Tactical Perspectives*. San Diego, CA: Academic Press.
- Hajimohammadi, B., Ehrampoush, M. H., and Hajimohammadi, B. (2014) Theories About Effects of Islamic Slaughter Laws on Meat Hygiene. *Health Scope*, 3(1).
- Halal Industry Development Corporation (2013a) *Halal Logistics* [Online] Available at: http://www.hdcglobal.com/publisher/halal_park_logistics [Accessed July 8, 2014].
- Halal Industry Development Corporation (2013b) *Halalan Toyiyiban* [Online] Available at: http://www.hdcglobal.com/publisher/cdh_halalan_toyiyiban [Accessed February 4, 2015].
- Hashim, H., Hussin, S.R. and Zainal, N.N. (2014) Exploring Islamic retailer store attributes from consumer perspectives: an empirical investigation, *International Journal of Economics and Management*, 8(S), 117-136.
- Honkanen, P., Olsen, S. O., and Verplanken, B. (2005). Intention to Consume Seafood—the Importance of Habit. *Appetite*, 45, 161–168.

- Hugos, M. H. (2009) *Essentials of Supply Chain Management, 3rd ed*, Hoboken, New Jersey: John Wiley & Sons, Inc.
- Karijijn, B., Iris, V., Florence, B. B., and Wim, V. (2007) Determinants of Halal Meat Consumption in France. *British Food Journal*, 109, 367–386.
- Khan, N. (2009) *Special Report: Halal Logistics* [Online] Available at: <http://www.arabian-supplychain.com/article-385-special-report-halal-logistics/1/print/#show=comment> [Accessed July 30, 2009].
- Kontena Malaysia Berhad (2014) *Corporate Info* [Online] Available at: http://www.kn.com.my/index.php?option=com_content&view=article&id=22&Itemid=2 [Accessed February 4, 2015].
- Lada, S., Tanakinjal, H., and Amin, H. (2009) Predicting Intention to Purchase Halal Products Using Theory of Reasoned Action. *International Journal of Islamic and Middle Eastern Finance and Management*, 2(1), 66–76.
- Lodhi, A.U. (2009) *Understanding Halal Food Supply Chain*, HFRC UK Limited: Chesham.
- Mohd Bahrudin, S. S., Ilyas, M. I., and Desa, M. I. (2011). Tracking and Tracing Technology for Halal Product Integrity Over the Supply Chain. Paper presented at the *International Conference on Electronic Engineering and Informatics*, Bandung, Indonesia.
- Mukhtar, A. and Butt, M. M. (2012) Intention to Choose Halal Products: The Role of Religiosity. *Journal of Islamic Marketing*, 3(2), 108–120.
- Ngah, A. H., Zainuddin, Y. and Thurasamy, R. (2015) Barriers and Enablers in Adopting of Halal Warehousing. *Journal of Islamic Marketing*, 6(3).
- Nunnally, J. C. (1978) *Psychometric Theory, 2nd ed*. New York: McGraw Hill.
- Omar, E. N. and Jaafar, H. S. (2011) Halal Supply Chain in the Food Industry—A Conceptual Framework. Paper presented at the *IEEE Symposium on Business, Engineering and Industrial Application*, Langkawi, Malaysia.
- Roscoe, J. T. (1975) *Fundamental Research Statistics for the Behavioral Sciences, 2nd ed*. New York: Holt, Rinehart and Winston.
- Shaari, J. A. N. and Arifin, N. S. (2010) Dimension of Halal Purchase Intention: A Preliminary Study. *International Review of Business Research Papers*, 6(4), 444–456.
- Shahijan, M. K., Rezaei, S., Preece, C. N. and Ismail, W. K. W. (2014) Examining Retailers' Behavior in Managing Critical Points in Halal Meat Handling: A PLS Analysis. *Journal of Islamic Marketing*, 5(3), 446–472.
- Tieman, M. (2011) The Application of Halal in Supply Chain Management: In-Depth Interviews. *Journal of Islamic Marketing*, 2, 186–195.
- Tieman, M., van der Vorst, J. G. A. J., and Ghazali, M. C. (2012) Principles of Halal Supply Chain Management. *Journal of Islamic Marketing*, 3(3), 217–243.

- Tieman, M., Ghazali, M. C., and van der Vorst, J. G. A. J. (2013) Consumer Perception on Halal Meat Logistics. *British Food Journal*, 115(8), 1112–1129.
- Tuu, H. H. and Olsen, S. O. (2012). Certainty, Risk, and Knowledge in the Satisfaction-Purchase Intention Relationship in a New Product Experiment. *Asia Pacific Journal of Marketing and Logistics*, 24(1), 78–101.
- Yusof, R. N., Everett, A. M., and Cone, M. H. (2011) Market-Orientation and Islamic Business Practices in Malaysia in *Handbook of Islamic Marketing*. Edward Elgar: Cheltenham, UK, 187–207.