Muslim Consumers' Perceptions of Halal Logsitics in Malaysia

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DECLARATION

The author hereby declares that this project paper is the original study undertaken by him unless stated otherwise. The acknowledgement has been given to references quoted in the list of references. The views and analysis in this study are that of author's, based on the references made, and this does not constitute an invitation to use this study as a technical tool for management purpose.

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Abstract of the project paper submitted to the Senate of Universiti Tun Abdul Razak in partial fulfillment of the requirements for the Master of Business Administration.

Muslim Consumers' Perceptions of Halal Logsitics in Malaysia

By
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Worldwide Muslim consumers must be confident that the food they eat follows the standards of Muslim Halal. Meat and poultry must be slaughtered in accordance with Islamic customs in order to make them halal. Certain meat products must also be kept separate in the supply chain in order to minimise the possibility of contamination. The study examines information on halal goods from consumers, their views, expectations and perceptions of their knowledge and demand for a 100% halal supply chain. The work is carried out in the light of the customer's feelings of satisfaction and/or dissatisfaction with the customer's preference for halal products. It also aims to unravel consumer expectations and perceptions with interrelated issues such as halal food demand and the halal supply chain, each influencing the other in a multi-directional manner. This study provided new insights to policy makers, business owners / consumers or practitioners whose decisions could have an impact on the logistics sector.

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CHAPTER 1

INTRODUCTION

1.1 Background of the Study / Introduction

In recent decades, Muslim customers have seen a wide range of goods and services provided by thousands of companies around the world. A selection of halal products and services are therefore the best choice. The mass demand for halal goods and services, the growth of Muslim social classes, social groups, trade unions, consumer organisations, companies, foreign governments and international organisations, are therefore irrefutably related. Sheet et al., 2008, Lever & Miele, 2012 (Belgium, 2012). In addition, non-Muslims on average have detailed knowledge of halal goods and services. (Aziz & Chok 2013; Gayatri & Chew 2013; Marzuki, Hall & Ballantine 2012). There are currently thousands of globally produced goods and services with an entirely different halal process, such as branding, logo and certification, from Malaysia, Australia, the UAE, Singapore, Indonesia and China (Fisher 2011). The Halal market size, which now stands at approximately USD 632 billion annually, constitutes 17% of the world's whole food industry.

The ability of the halal market to spread its goods worldwide is very promising for these halal producers. Halal logistics' overall supply chain network "From Farm to Fork" is part of its storage, distribution, production, or transport functions (Talib et al., 2013). As described in the Tieman (2013) agreement on the principles of Shariah, the Halal logistics are not very different from conventional approaches to procurement, transfer, storage and handling of material pieces, livestock, semi-finished or final food and non-food products in the network in the supply chain.

Halal-logistics is still a big part of the country and is therefore very limited in terms of expertise, know-how and publication (Zulfakar et al. 2012; Tieman 2013; Talib et al.

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2014). Malaysia is a Muslim country with a population of 30 million (Mundi Index, 2014) accounting for 61 percent of its total population. Halal is therefore necessary every day for Muslim usage and becomes a core obligation in a pluralist society. Over 80% of foodstuffs are produced in Malaysia by non-Muslim producers (Mohamad, 2013). This led to the Muslim community indirectly in the hands of manufacturers, halal, and haram depending on their rightful destiny. In the process of managing courses in various sectors as regards manufacturing, packaging, shipping, storage and distribution, various parties still face problems in the maintenances of halalism. The government and its agencies therefore need to help Muslim businessmen, in particular the Bumiputera, in the manufacture of halal food and services. That would switch the power against

The supply owned by the current manufacturers of non-Muslims. In 2014, about 94 percent of Halal's 2, 3 million products were approved, according to the reports by the JAKIM and Halal Production Corporation (HDC). According to this report, 5400 companies approved the use of Halal certificates, 87.8 percent of which are SMEs but under 10 percent are Muslim businessmen. This assertion reflects Tieman's findings that the majority of the food supply chain including agriculture, food processing, restaurant, logistics and retail chains is dominated by non-Muslim countries and companies (Tiemen, 2015). For example, in Muslim and non-Moslem countries more than 90% of the global halal market have now been dominated by several large transnational companies including Tesco, Kelloggs, Carrefour's, Nestle, KFC, and McDonalds.

Malaysia exported MYR 32.84 billion of Halal goods in 2013 and in 2014 increased by approximately 14.8% or to MYR 37.69 billion. The majority of exports of the halal value of Malaysia are prevailing on a variety of markets, including the APEC, IOC, TPSEP, the ASEAN and EU countries. Food and beverages, additives, palm oil products and health items are at the core of the export values of goods.

In order to sustain its export of global halal products (e.g. regulations, logo and certification), Malaysia developed a range of halal standards, including halal logistic ports and halal parks. Halal logistics are a globally and potentially as a lucrative new market route for halal nice, Kamaruddin et al. (2012). One of the drivers of Halal's growth industry was high demand and perception of the customer's plans for buying halal brands (Aziz et Chok, 2012) and the high level of expertise, understanding and attention paid to entrepreneurs (HDC, 2015). Muslim diets have as their underlying concept that not only Halal, but Toyiban should be a food that means wholesome (healthy, nutritious, nourishing, high quality). This concept is derived from one of the Quran scriptures which says, "O you guys! And do not follow the Wicked One's acts, for he is a powerful opponent of you. Eat Halal and toyyib of what's on Earth.

The definition of halal in Islam has very clear motives. Pure faith, Islamic mentalism should be preserved, life preserved, property preserved, future generations secured, and integrity and respect of ourselves preserved (Riaz & Chaudry 2004). The concept of the halal supply chain is thought to be neglected by many muslim customers who choose halal goods. Muslim customers that have a Halal logo on the package, without doubt and absolutely depending on the manufacturers, typically buy halal items. Halal products are most of them do not know the supply chain and logistical aspects of halal food requirements. It is denied that when buying halal meat products most muslim customers have no choice (Hawkes 2008). For example, halal products are sold along with other meat products (such as pork) that run counter to one of the principles of halal in Singapore. In Malaysia, a halal problem concerning muslim customers is the proper separation and care of halal products from nonhalal products and the full details of companies operating in halal products. Since muslim consumers cannot be completely assured that the products, they purchase are halal. They can only take it at face value, however.

1.2 Problem Statement

Muslim consumers constitute 60 percent of Malaysia's population and information on Halal's demands were included in the supply chain's knowledge and its principles, whether by informal or formal education. Awareness of the Halal Supply Chain is different from conventional supply chain management, which includes halal policy and clear design requirements in order to achieve the goals of the supply chain, logistics control, supply chain network structure, supply chain business processes, supply chain capital, and supply chain performance. The Halal certification for the Halal symbol, supervise and apply the Halal guidelines, as well as the curriculum and training system for Halal, is provided by the Malaysian government body, JAKIM, in Malaysia.

The market knowledge certification Halal has been established to guarantee Halal-like products in order to adhere to the cleanliness and high quality of Islamic dietary laws. Different market types, like non-Muslims, see Halal goods as healthier and safer to use. With the goal of obtaining halal certification, the products of Halal would allow Muslim and non-Muslim consumers as familiar and well-versed on the knowledge in the halal food supply chain to sell their goods regardless of whether it is locally or abroad. In order to maintain the Halal quality at a point of sale, halal shipping and the management of the halal supply chain are one of the main drivers contributing to the rise in prices for halal products in Malaysia. Although the implementation of Halal transport would increase the prices of goods, Malaysia Muslim consumers are aware of the costs of halal transportation and bribery and are therefore prepared to pay prize money in a certain way for halal products. The reasons that customers are prepared to pay premiums for Halal's goods have been shown to be a significant positive attitude. In addition, a positive mindset has a significant effect on intention to purchase and greater willingness to pay high rates, as Halal goods were considered to adhere to the Syariah regulations and to be safe to consume.

Halal logistics providers have a significant effect on the efficiency of halal logistics in the physics separation of halal products from non-halal products in halal transportation and halal terminals. Moreover, halal logistic practices concentrate on comprehensive practices relating to halal transportation, halal storage and halal finals as required for the physical segregationof halal from nonhalal in compliance with the Malaysian Halal Logistics Standards (MS2400 2010). At each touch point in the logistics, from transport (from terminaux) to transport (customer) and segregation, the basic concept of ensuring physical segregation of the halal cargo is protected by separation practices (Talib et al. 2013; Tieman et al. 2013; Zailani et al . 2017; Karia & Asaari 2014; Karia & Asaari, 2016a). The distinction of halal and nonhalal goods is important in order to avoid cross-contamination and to enhance the capacity of halal logistics providers to meet the Shariah and halal logistic regulations and to meet the health needs of various Muslim consumers.

1.3 Research Objectives

Therefore, the aim of this study is to explore muslim consumers ' perceptions of market awareness on the demands of halal food and the supply chains, preparedness to pay premium prices and the separation and handling of logistics halal and Halal supplier chains. This is because the supply chain and logistics that currently exist will not shift until there are ample market awareness and customer demands for 100% halal goods and there is no economic interest to upstream players.

The study based on muslim customer expectations in Malaysia. As such, the study was attended by 112 Malaysian participants. The sample was 112 people of a different culture and way of life in Malaysia but Muslims and everyone who was consuming halal products

1.4 Research Questions

In the study's muslim customers' perceptions of halal logistics in Malaysia four research questions were addressed and there are as below:-

| Are Muslim consumers have adequate knowledge on the halal supply chain requirement and principles |
| Are Muslim consumers are willing to pay a premium for halal products due to stringent SOP |
| Are Halal logistics providers conducting halal product business are fully knowledgeable |
| Are Halal logistics providers practice segregation when handling halal products from the non halal products |

Figure 1: Research Question

1.5 Significance of the Study

The research would play an important role in establishing the relationship between muslim customer understanding and purchasing behaviours theoretically and pragmatically. It analyses the views and perceptions of muslim consumers when they buy a balanced halal food. This knowledge is a benchmark for all academies and companies as it breaks down the true connection between customer understanding, attitude and decision-making. Numerous researches, including understanding and attitude, are available on muslim customer behaviour. However, these findings are based on hypotheses rather than quantitative proof.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

South East Asia and the Middle East are the two main markets for halal products. The largest halal area in the Middle East and a total of 445 inhabitants are Sungkar, Othman, and Hussin in 2008 and in south-east Asia there are more than 250 million halal consumers. Europe, Canada and Australia have become centres of rising growth and large markets for halal processing, trading and consumption in major Muslim communities. Ironically, in some Southeast Asian nations, such as Malaysia, Indonesia, and Singapore, the Halal problems in 2007 were far higher than in the Middle East, according to Bonne and Verbeke. However, the faith and extent to which people interpret and practise their religious lessons in purchasing and using Halal products depends most likely (Ismail and Phoon 2007). (Ismail and Phoon 2007).

Religion can usually be affected by the person's behaviour, good-being and lifestyle (Ebaugh, 2002; Frank & Kaldor 2002; Poloma & Pendlanton 1990; Sloan et al., 1999; Woods et al., 1999). Researchers have argued that faith is the principal cultural element shaping action and procurement decision-making (Assadi 2003; Esso&Dibb 2004; Delener 1994; Babakus et al. 2004; Cornwell et al. 2005). At the same time, religion is considered a subsystem of culture and faith and a way of life that inspires people to follow those values. There are two major explanations for the preference of religious beliefs. Firstly, it is a central force in defining our conduct and behaviour and secondly, it acts as important guiding principles in our day-to-day life (Schwartz and Huismans 1995).

Religious conduct therefore generally refers to a person as it belongs to his own faith (Endang, 2010). The use of such goods and service can be forbidden by religious

customs and practises which are part of certain religions (e.g. Islam, Judaism, Hinduism and Buddhism). Religious affiliation and commitment may influence rules and taboos affecting various aspects of adherents' choosing behaviour. Endang (2010) adds that religion is a limiting factor in food consumption, especially meat. Sitasari (2008) suggests that religiosity is very important because it influences individual interpretation and behaviour.

All Islamic scientists believe that the reduction of consumption is an acceptable course to this target (Riaz & Chaudry, 2004). For Muslims, there are general guidelines. A Muslim does not ensure that the actions of an individual always obey the concept of consumption equilibrium. However, to a certain extent Syariah theories and implementations are formal and informal learning by human learning and socialisation (Endang, 2010). The word moderation can be described differently by different scholars. One way to obtain an understanding is to boost the effectiveness (measuring consumer satisfaction or expenditure) with no limitations on altering or improving the Islamic system. Siddiqi (1992) and Hamouri (1991) were located in this area. Religious practise therefore influences the understanding and values of this idea of balance.

However, Islamic values also vary from Muslim values, since cultural traditions in Muslim societies overlap (Ebady 2004). Religion has many effects on consumer behaviour between cultures and countries (Sood & Nasu, 1995). However, there has been little debate, and the claim has not obtained rigorous empirical proof.

Muslims claim that they feed to a degree that they get the food from the flesh and blood that they feed. The food selected is also carefully considered. Muslims receive special instructions on food selection in the Quran. It distinguishes Halal or Haram. The topic for the consumption of halal and haram in the Quran is quoted as "Eat for you of the good which we prepared" (Qura 2:173). "Eat the real and lovely stuff in the world" (Quran, 2:168).

Adila undertook an investigation in Malaysia in 1999 in order to decide if Islamic teaching is aligned with the expectations and means of reaching studied Muslim consumers. The results demonstrated that Muslims typically invest little on discipline as one of the core concepts of the Islamic business model. Since the majority of Malaysians (60%) are Muslims, they constitute the country's population. The research therefore focuses only on unsustainable products, such as food and apparel that meet physiological needs. It was therefore not possible for Muslim consumers to demonstrate their behaviour when purchasing sustainable products, especially when purchasing vehicles, homes or other economic cartons.

Another study by Shaharudin et al. (2010) of the factors that affect organic food purchases in Kedah, Malaysia revealed that health knowledge and perceived value are both main factors which influence the intention to purchase organic foods. We find that cost is not a significant factor given that the nutritional value of organic foods is greater than the usual value of consumer foods. Halal is recognised as part of organic elements by scientists. The study also showed that organic food is more important and more important to buy. Consumers have shown that the respective government agencies or local authorities have based food protection and halal affairs. Muslim customers are saying that they do not worry about food and faith as long as business is legal to serve and authorities allow Halal. This pattern has already been illustrated by Fischer (2008) on the basis of the increasing number of "certification agencies" claiming approvals for quality verification of Halal's food.

The trade in halal products is relevant on the basis of an appraisal of Malaysian consumer behaviour (Lada et al. 2009). Halal products which drive the halal market throughout the process are also loyal to consumers who use halal (Yousef, 2010). In fact, Muslim consumers are very much like all other segments of the market and they need healthy, high quality products which will also meet Syariah standards (AlHarran & Low 2008). Certain Muslim consumers notice that, even though there is no halal label, they rely

on a well-marketed commodity. Instead of obtaining a reputated person but a halal logo (Al Harran & Low 2008), they will focus more on the quality of their goods.

A 2010 study conducted by Wan Omar, Muhammad and Che Omar, conducted in Kelantan, Malaysia (also the Makkah corridor) showed that the consumer concentrated more on Halal and patented marketing variables than on the Halal certification logo. This is generally a non-issue of the Halal logo. Moreover, the results show that the processing factor does not affect the attitude of Muslim consumers to halal foods. Researchers conclude that Muslim consumers in Kelantan should be favourable to halal food when the marketer takes halal food drivers seriously.

In general, the individual and environmental factors such as marketing, awareness, circumstance and particular property characterised consumer attitudes and behaviour. The decision to purchase the halal product is therefore concentrated on data supplied by halal butchers as freshness, taste and slaughter. Adding Dimara and Skuras (2005), knowledge sharing, like product labelling, plays an important role as a customer information tool. There is a lack of published research on Islamic religion and the connexion between Islam and consumer behaviour, although several research projects have been undertaken on consumption and halal foods. Moreover, there is little mention of the effect of the Islamic food law on Islamic buying behaviour, with regard to the halal supply chain. There is also no empirical evidence that the behaviour of Muslim decisions in procurement, which underline the degree of religious devotion, affects cultural practises. It is not well known what impact cultural / religious consumer, particularly Islam and its customers have on marketing research (Emery & Tian, 2009; McCort & Malhotra, 1993). Therefore, it should be measured and examined as well as the goal of marketers to use halal goods to anticipate and meet consumer and company expectations.

A. Certification Halal

According to Islamic directives, Muslims should use halal food and haram eschew foods (Al-Qaradawi, 2007). Non-Muslim companies and nations regulate much of the food supply chain (farming, food manufacturing, restaurant policies and retail marketing) (Tieman, 2015). Consequently, an association for halal certification was created to ensure that footstools comply with halal standards (Latif et al., 2014). In today's food services industry, demand is strong among the demand for halal certificates from companies in order to adhere to sharia and halal practises (Shafie and Othman, 2006). As the religious understanding of Muslim users increases, the kind of services and food they consume tends to be more cautious. Halal certification marked with a halal-logo is used to inspire their target clients, businesses and companies to ensure that Muslim customers are compliant with Halal and Sharia services and products (Shafie and Othman, 2006). The Malaysian Ministry of Islamic Development (JAKIM) as a government body has a halal provision under its competence. In view of the introduction and adoption of laws, acts, rules and regulations pertaining to the halal criteria in Malaysia, this organisation plays an important role in international activities through its halal standards such as MS 1 500:2009 (Tieman and van Nistelrooy, 2014).

B. Halal logistics

Logistics operations include transport, warehousing, processing of goods, procurement, etc. In the logistics process, Halal logistics is mainly an act of restriction against haram and halal pollution. The process for managing the acquisition, transportation, stocking and control of animals or products, part-finished or finished inventory of non-consumable and consumable items will be the subject of Halal Logistics 466 BFJ 118,2 Downloaded by UNIVERSITY OF MALAYA at 17:11 21 January 2015 (PT) Halal Logistics 466 BFJ 118,2 Downloaded by UNIVERSITY OF MALAYA At 17:11 21 January 2015 (PT). In order to guarantee their compliance with Shariah rules, they also deal with the applicable supply chain, business

certification and data services. Robust halal logistics must be maintained at fundamental stages in supply chain operations and in logistics to ensure that any halal food is secure from non-halal items until it is safely and effectively distributed at the end stage (Lodhi, 2009). Halal LSPs can then take more steps to guard against potentially contaminated halal products. Materials for non-halal and halal products, for instance, are likely to cause contamination (Talib et al. 2010). Furthermore, non-halal or halal foods in transportation and warehousing should be maintained clearly, in order to prevent contamination (Riaz and Chaudry, 2004; Jaafar et al., 2011). Logistics companies can also use halal materials for packaging halal items (Soong, 2007). Halal logistics have achieved outstanding recognition both academically and professionally. As the world's second biggest religious community, Muslims must ensure that their food and products adhere to Islamist laws and principles. As a consequence, there is a rapid growth in global halal industry (Pahim et al., 2012a, b). Not only does Halal comply with Muslim requirements, it appears to be an international indication of business efficiency and lifestyle preferences (Lada et al., 2009). Halalilty of products and foods may be called into question as directly linked to haram during storage and transport (Tieman, 2011). Muslim consumers have recognised this possible risk to halal food and products. Despite the widely distributed marketing of halal products and the role of halal logistics in protecting food halal products, the present evidence indicates that halal logistics does not cover all the companies involved in halal foods. Talib and others. (2013) argues that the customers' lack of demand can be considered the main obstacle to the adoption and involvement of halal logistics. However, there is inadequate research from the consumer's point of view. The primary objective of this study is to determine the drivers of customers' willingness to pay for halal feed.

C. Business of Halal demand:

Malaysia is a leader in the Malaysian sense of halal food benchmarking. The United Nations referred to Malaysia as the World's best example of Halal Food Benchmarking in

accordance with the Codex Alimentarius Committee, which adopted the General Guidelines for the Usage of the word halal in Geneva in 1997. Malaysia has been worldwide standardised for halal methods, and for the global halal food industries the Malaysian standard has also been developed (SME Annual Report 2006, 2007). According to Saifol (2011), this quotation must therefore provide Malaysia with an opportunity to stay competitive as this industry is full of challenges. One challenge is to distinguish goods so that businesses can be versatile to meet customers ' demands and preserve profitability (Barone and DeCarlo 2003). The growth of the halal food industry in Malaysia would have been impossible without the Government policies, support and assistance provided for in the Second Industrial Master Plan 1996-2005; the National Agriculture Strategy 1998-2010; the Ninth Malaysia Plan 2006-2010; and the III Industrial Master Plan 2006-2020. The government's policies have conserved the food industry in Malaysia. One of the measures taken by UNIVERSITY Downloaded from MALAYA at 17:11 January 21, 2016 (PT) is the Halal Master Plan on certification, sectoral development, halal honesty and implementing, 467 Willingness to pay for the halal logistics. The Master Plan (Figure 1) sets out three phases of the roll-out from 2008 to 2020. Similarly, the 2006 IMP3 predicted that the world demand in foodstuffs and non-food halal products will be USD 2.1 trillion annually. With this in mind, Malaysian food companies are encouraged to join established food companies in serving the larger Muslim populations on ASEAN, Middle East, European and U.S. markets, particularly from Neo-Zealand and Australia. Malay has advanced to the pivotal global pivot of the halal food industry through a five-point agenda addressing cinq particular areas: the growth of Muslims in the core halal foods industry; growth in the key halal food market revenue; increased demand for safe and high-quality food in the primary markets; growing demand for higher halal in the primary food market; This ensures that the halal food industry should be able to guarantee and maintain the halalism of the food sold consistently. Due to the high costs, the supply chain of 3PL suppliers for halal transport services remained unreliable. For instance, warehouses and transport vehicles intended for sensitive goods incur high costs, which undermine companies' compliance with halal

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industry activities. Only the transportation and storage of halal foodstuffs into separate boxes and the allocated separate regiments to warehouses and retail stores is able to achieve its purpose. However, additional quality monitoring and additional costs will be needed for these operations (Tieman, 2008).

D. Muslim consumers demand for halal logistics certification

According to Halal Development Corporation (HDC), the agency under the Ministry for International Trade, "the basic principle of halal logistics is for the sake of separating halal from non-halal freight, with a view to avoiding cross-contamination and ensuring that the logistics system is compatible with the preferences of the Muslim customer, thereby maintaining halal integrity in the business. The work ensures also that the distribution system, storage facilities, containers and freezers all are halal certified, which prevents contamination of halal food by any non-halal element. Carriers and warehouses have to comply with the Halal rules. For example, if used previously for distribution of non-halal products, the container should be 'Samak' (clean).

2.2 Theoretical Foundation

Halal literature, briefly, recognized that work in the field of halal and halal logistics in general is not fully discovered and in the area of logistics (Noorliza et al., 2019; Zailani et al., 2017). The importance of halal is stressed by the majority of halal literatures, but it is more concerned with halal (allowable) and toyibba (wholesome and good) in the food cycle, regulation of halal foodstuffs and uniform certification of halal products. The bulk of halal literature was theoretical and non-exploratory (Jhawar et al., 2014; Talib et al ., 2012; Tieman et al ., 2013); This research is important, therefore, to broaden the awareness of both academic and practitioners of halal, halal and industry practices, halal logistics and halal logistics integration. Halal companies are therefore not persuaded of the consequences for increasing efficiency and sustainability of producing halal interest. Halal does not only comply with the laws of Shariah. The Prophet (PBUH) extends beyond all divine aspects, attitudes, actions and decisions that benefit mankind as a whole (Mashlaah) and the world. This applies to God.

Allah recognizes for halal logistics the supreme importance (Noorliza et al. 2019). Several terms have been mentioned in literature defining the general meaning of halal and toyibba. Services including values of trust, loyalty, integrity, timeliness, fairness, discipline, and consistent, safeguarded goods are included. Karia and Asaari (2016(c) conclude that specific public services, price, competition, human and universal health, religious needs and Allah's blessing are important requirements for halal sense (Karia and Asaari, 2016b). In general Halal logistics management refers to the management of Muslim law logistics operations, which are turned into an innovation strategy for the supply of Halal goods or services that improve organizational productivity and sustainability (Karia and Asaari, 2016c). The 'halal logistics' refers to the traditions and principles of Islamic logistics-based companies (Karia et al. 2015; Noorliza et al. 2019). Logistics is the transportation and handling of items, objects or information from one level to the other in practice. Halal's

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contemporary logistic is to be carried into halal development, before the completing halal is supplied for final use (through over the entire supply chain) (Kariah (Kariah) The s logistics or business compliant with Shariah, responsible services and transport of halal, halal or information directly from halal suppliers to halal goods. (Kariah)

2.3 Empirical Research

There are three main factors in the quality of muslim consumers' perceptions into Halal logistics. The first study is to study the experience of clients in the logistics of halal and supply chain. The muslim consumers from here must be aware that logistical suppliers are committed to fulfilling the Halal requirement and, although they are non-Muslims, are also responsible as more than 50% of halal food items are non-Muslims in Malaysia. We want to research into that as opposed to ordinary uncertified halal goods, clients are willing to pay premium rates for halal products. Halal products customers pay for their cash value. In the third report, halal goods are isolated from manufacturers, haulers, shops and eventually halal customers without halal products.

2.4 Proposed Conceptual Framework

Figure 2: Service of Halal Logistics in Malaysia

2.5 Hypothesis Development

H1:   Muslim consumers have adequate knowledge on the halal supply chain requirement
         and principles. (Independent Variable)

Awareness of the management of Halal supply chain differs from traditional management of

the supply chain which includes halal policies and design parameters for supply chain goals,

logistics control, networking structure, supply chain business operations, supply chain

properties, and supply Chain Performance metrics.

H2:   Muslim consumers are willing to pay a premium for halal products due to stringent
         SOP. (Dependent Variable)

The willingness of muslim customers to pay premiums because of the Halal attribute refers

to its source, the essence and methods of production. The integrity of the product must be

clearly told through on-pack or in-label indications. As well as the health and safety aspects

of the food and its preparedness, the Halal certification focuses on sanitation, consistency

and protection.

H3:   Halal logistics practise segregation when handling halal products from the non-halal
         products. (Dependent Variable)

Halal logistics activities including physical segregation of halal goods in halal storage, halal

transport and half terminal have a positive impact on the efficiency of halal logistics.

2.6 Summary of Chapter 2

Research has shown that the perception of muslim consumers of the supplies chain for halal logistics is crucial and that Malaysian consumers are better aware of it. In Malaysia, 60 percent of the population is Muslim consumer, because more than 50% of Malaysian producers are non-Muslims who apply and apply the Halal requirements are very concerned about halal products. Halal certification producers are aware, not only in Malaysia but in the rest of the world, of the value of the halal certification which is also valid for halal goods. You know that most Muslim consumers should look for high quality halal food. They have a moral responsibility to consume only halal food. The key concern and understanding of customers would be segregation and handling if Halal goods would also be treated by non-Muslims not familiar with Halal demands. By enforcing halal certification, manufacturers and carriers are subject to Halal guidelines and audited and then transported to ware houses and groceries by the certification body as JAKIM in Malaysia. The entire process shall be strictly monitored in the logistics and supply chains through the halal committee.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Methodology

This analysis used methods of quantitative grading (Zikmund 2003). Many sites were worked on and methods for structural data collection were used. Active quantitative investigation methods measure current patterns in the procurement of muslim consumers, preferences and attitudes for 100% of halal meat products. Muslim consumers from various areas of life in Malaysia collected data on the nature of mix-site research. Data have been collected online via the on-line questionnaire (Marshall & Duignan, 1987) regarding the multimethod existence of research design.

An online questionnaire has been developed to collect quality data from a range of users rather than online surveys. The questionnaire This negative statement was used to minimise the willingness of respondents to pick the bottom on one side, rather than to flavourfully deal with all statements; for example, statements used to express muslim consumers' general perception of halal products specifications, current practise and understanding, and understanding of a 5-point Halal supply chain Likert scale. If a respondent is not particularly interested in completing the questionnaire, he must keep an eye on constructive and negative feedback. For example, in the case of a person who had ticked 'extraordinarily well-conceived' in favour of a positive statement like 'halal goods sold at a supermarket and botched to the true 'halal requirement,' 'the respondent would not re-enthusiastically tick a negative declaration like' that there is no separate cold storage for halal food'

This questionnaire examined the views of muslim consumers on a wide variety of issues regarding their satisfaction and dissatisfaction with their purchases and current trends and aspirations in the Halal supply chain and food requirements. This quality dimension of the halal food and supply chain was distilled in the literature on the Halal Food requirements and in particular in the Studies on Riaz and Chaudry (2004).

3.2. Sampling

Malaysia, only Muslim consumers and preferable halal items had to take part in the study. It was hoped that the social networking portal such as Facebook, newsletters, corporate emails and websites will provide a sample of a significant amount. Sampling was random, as all those who met the above requirements were offered an open invitation.

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3.3 Research Design

This research utilizes data from online survey to Muslim consumers to gauge the consumers buying preference towards halal products. The demographic profile survey also conducted to ensure that the views and feedback from all level of ages in Malaysia.

Research design it's to describe what is the step was taken to bring out the study of the consumers' perception towards halal logistics in Malaysia. The step was including research design, target of respondents, data collection and the method how to collect the data. Research design is to assist how to do the analysis in depth about consumers' perception in halal logistics practices. Qualitative and quantitative data need to be collected is the easiest to use, convenient and also the time limitation. Base from the previous chapter was provide theory related effectiveness of logistics industry and how to proposed conceptual framework. Below is short illustration on research design.

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┌─────────────┐      ┌─────────────┐      ┌─────────────┐
│  Research   │ ──▶  │  Research   │ ──▶  │ Conceptual  │
│  Statement  │      │  Question   │      │    Model    │
└─────────────┘      └─────────────┘      └─────────────┘
                                                 │
                                                 ▼
┌─────────────┐      ┌─────────────┐      ┌─────────────┐
│Data Analysis│ ◀──  │    Data     │ ◀──  │ Theoretical │
│             │      │ Collection  │      │  Framework  │
└─────────────┘      └─────────────┘      └─────────────┘
       │
       ▼
┌─────────────┐      ┌─────────────┐
│Discussion and│ ──▶ │ Conclusion  │
│Result     Di │     │             │
└─────────────┘      └─────────────┘
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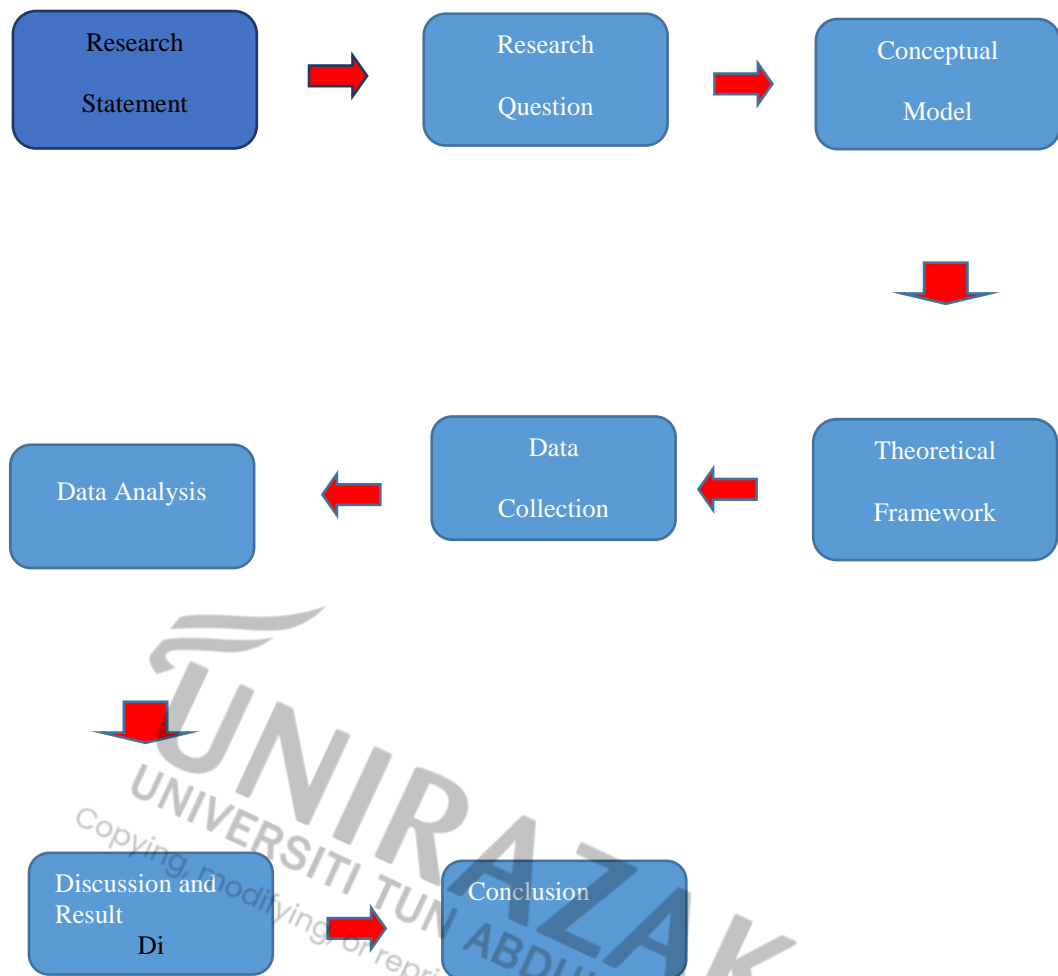
Figure 3: Research Design

3.4 Data Collection Method

Muslim consumers via social networking platforms such as Facebook and corporate email were invited to participate in the survey by means of questionnaires. Based on the formal questionnaires as set out. The questionnaires comprise two parts. Part A of the query dealt with the respondent's demographic profile. The query in Part B based on consumers purchasing halal goods preference. The data would later be transformed into the study figure.

3.5 Data Analysis

All the question that will be answered from respondent will gather to do the analysis into the excel sheet by manual calculation. Data analysis process was involved into two stages by addressing the two objectives, namely, to determine the muslim consumers buying preference towards halal products. Muslim consumer's behaviour and attitude are being prioritise according to their buying preference.

3.6. Results

The four research questions required five categories of data. First, muslim consumer preferences to purchase Halal goods were discussed and split into two parts. The second observed public opinion on the specifications of halal food. The third focused on muslim consumers' understanding of emerging developments in the supply chain and logistics of halal products. The fourth form based on purchase factors and on the fact that muslim consumers should pay a premium on 100% of the supply chain products. This also looked at the views or perceptions of muslim consumers about the current supply chain network and logistics linked to perceived factors that benefit or hamper 100% Halal consumers. The above, which dealt with population history, was very accurate.

3.7. Summary

As Halal's food items are not only consumed and desired by Muslims, the quality of halal logistics in Malaysia will also depend on the implementation, the execution and credibility of the halal supply chain.

Logistics play a vital role before the commodity reaches the final destination in order to retain the halogenity of every commodity through its successful transport, storage and handling within the supply chain. Given the broad halal market and the value of halal

logistics to preserve the halalism of a food product, the demand for halal logistics from a third party was insufficient. The determinants of the consumer's willingness to pay for the halal logistics are therefore necessary to consider. Our findings show a positive and important impact on the readiness to pay for halal logistics by customers about halal logistics, halal interest and media coverage. Moreover, payment would have a beneficial effect on the customer's demand for Halal logistics certification. The conclusions affirm the value of customers' willingness to pay for halal logistics to increase their demand for halal logistics certification. The observation shows that the willingness of customers to pay for halal logistics will ensure that the potential demand for halal logistics is secured. The absence of significant benefits to an entity through halal practises would hinder the implementation of halal logistics by logistics providers from the third party.

Therefore, it is important for the extension of this industry to increase customer readiness to pay for Halal logistics. The results reflect that consumers' sense of the role of halal logistics in preserving the halalness of the products is essential to the readiness to pay for halal logistics. As Muslim consumers become more aware of their religion, they will gradually become more specific in the type of products and services they purchase (Shafie and Othman 2006). Consumers' awareness of the logistics mitigation risk is therefore an opportunity to pay for knowledgeable halal logistics. Political manufacturers and providers of halal logistics services can also advise prospective customers on the importance of knowledgeable halal logistics.

The consumer's expectations reflect the Malaysian consumer's understanding of Halal logistics supply chain information and expectation. It should therefore be launched from any warehouse in which the distribution in Malaysia of only certified halal products is approved. As a fast benchmark and indicator to customers for the purchase of halal products, Halal Logo will be an indicator. Because JAKIM's Halal logo and imported products are also recognized to customers in other certification bodies worldwide. JAKIM's

position in every landing place of the distribution of the goods in Malaysia is very important to enforce this. Consequently, the market interest in Halal products' willingness to invest its value on Halal certification. The classification and handling of halal items in foodstuffs would also be significant observation and interpretation for consumers. Splitting is part of the halal specifications to avoid cross-contamination and to take good care of halal goods. Due to extra precautions and special care to be taken, the rise in price of halal goods would be directly reflected.

In Malaysia the charging of high prices on halal products is not a problem because Muslim customers are optimistic and conscious of the purchased halal products. You know the additional costs and work in the handling of halal products. The importance and value of the hygienic and safety costs incurred by halal goods are not at issue in the payment of premium prices as long as suppliers or manufacturers obey the strict standard operational procedures and standards of halal practice.

CHAPTER 4

FINDINGS AND ANALYSIS

4.1 Introduction

Findings and analysis chapter is considered as significant to extract meaningful information from raw statistical data. The analysis of the collected data from the survey questionnaire is going to be analysed in this chapter. This chapter is focused on extracting meaningful information from the raw data, which is being collected through online surveys. The data analysis of this chapter is going to be done using SPSS software. In this chapter, descriptive statistical analysis is going to be conducted to describe frequencies of the personal information of customers such as age, gender, education and residence. A correlation analysis is going to be included in this research to understand the relationship between different variables of the research. Moreover, the data analysis will include regression analysis to understand the impact of independent variables on dependent variables.

4.2 Response Rate

Muslim users were invited via social network portals such as Facebook and company email to participate in the online survey. 200 Muslims have also been invited via associations and their company websites. It hoped that 150 consumers would respond to the invitation, but only 112 consumers would. Thus, a response rate of 74, 6 percent (112/150 * 100) of the predicted sample size can be statistically determined. This is just an estimate of the rate of reply, since it does not demonstrate how many customers actually clicked or read the invitation. Since websites can be small or up to millions, it's difficult to calculate the exact number of invites online compared to the response rate of the on-site survey.

Furthermore, the names of respondents have not been revealed as the online survey in this study provided total confidentiality.

4.3 Respondents' Demographic Information

4.3.1 Descriptive Analysis

Statistics		Age	Gender	Education	Residence
N	Valid	110	112	112	112
	Missing	2	0	0	0
Mean		3.3545	1.4286	3.3661	3.5804
Median		3.0000	1.0000	4.0000	3.0000
Mode		3.00	1.00	4.00	1.00
Std. Deviation		1.19315	.49710	1.06539	2.48469

Table 1: Descriptive Statistics

Table 1 has demonstrated the output of the responses of the participants regarding their personal information such as age, gender, education and residence. According to Lemenkova (2019), the central tendency of the responses of participants is shown through the values of mean, median and mode. The *mean* value in the given descriptive statistics illustrates the average response of the participants. For example, the mean value for the response of age is 3.3545. It is understood that the average of the total response of customers is 3 which is 31-40.

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The average response, which has been chosen by the customer for the age group, is 31-40. Besides, the *median* value of the given table 1 has demonstrated the detailed descriptions of the given responses than their average. For example, the median value of education corresponds to 4.0000. It suggests that the middle of the total response in the educational qualification is the 4th response, which is a bachelor degree. Furthermore, the response with the highest frequency has been indicated through the *mode* value (Jayakumar & Rajalingam, 2019). In the case of gender, the mode value corresponds to 1.00, which represents that most of the participants have chosen a response (Male) for the question related to gender.

Age					
		Frequency	Per cent	Valid Percent	Cumulative Percent
Valid	Below 20 Years	8	7.1	7.3	7.3
	20-30 Years	18	16.1	16.4	23.6
	31-40 Years	33	29.5	30.0	53.6
	41-50 Years	30	26.8	27.3	80.9
	51-60 Years	20	17.9	18.2	99.1
	Above 60 Years	1	.9	.9	100.0
	Total	110	98.2	100.0	
Missing	System	2	1.8		
Total		112	100.0		

Table 2: Frequency of Age

The frequency of the response related to the age of participants has been demonstrated in the above table 2. It has been found from table 2 that only 110 participants out of 112 participants have been given proper response. Two of the total responses have been identified as missing. Besides, it has been signified in the table most of the respondents of the present study belong to the age groups of 31-40 years and 41-50 years having frequencies of 33 and 30 respectively (Mishra, 2019).

Age

110 responses
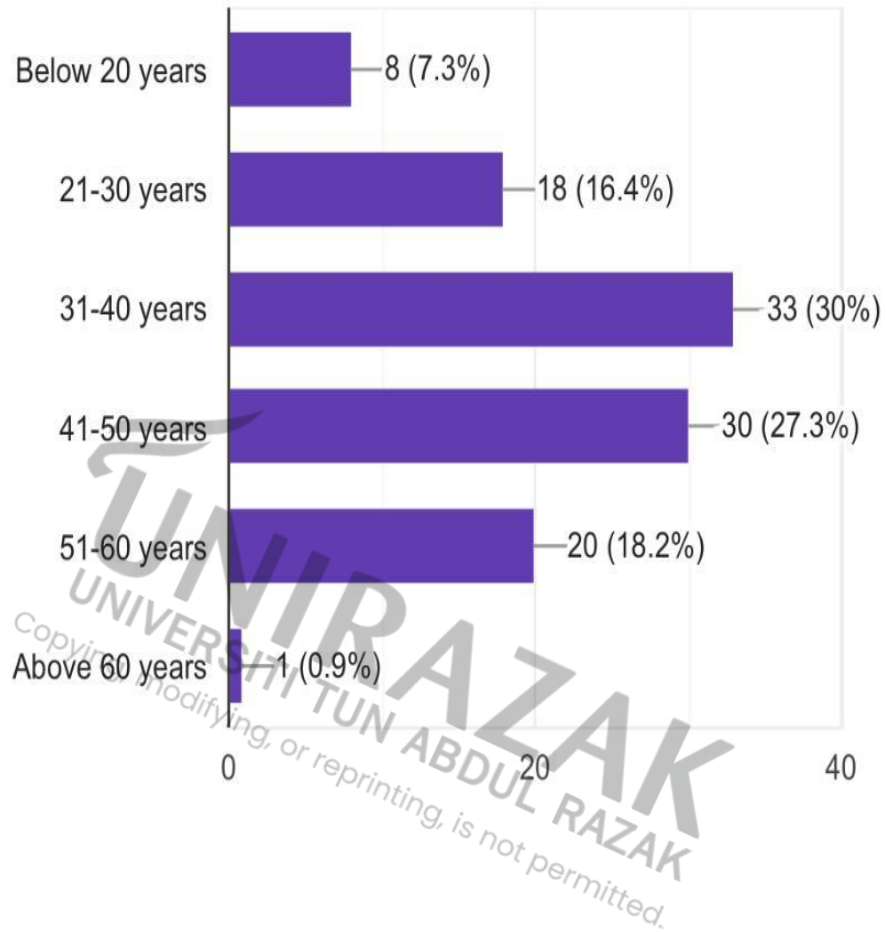
Figure 4: Research question responses age

Gender					
		Frequency	Per cent	Valid Percent	Cumulative Percent
Valid	Male	64	57.1	57.1	57.1
	Female	48	42.9	42.9	100.0
	Total	112	100.0	100.0	

Table 3: Frequency of Gender

Table 3 illustrates the output of given responses in the respect to gender-related questions. It has been found from the analysis that most of the respondents of the present research are male (Laureano & Botelho, 2017). There are 64 male and 48 female respondents who have been identified through descriptive analysis. The percentage of male and female responses in the present research is 57.1% and 42.9% respectively.

Gender

112 responses

Figure 5: Research question responses by gender

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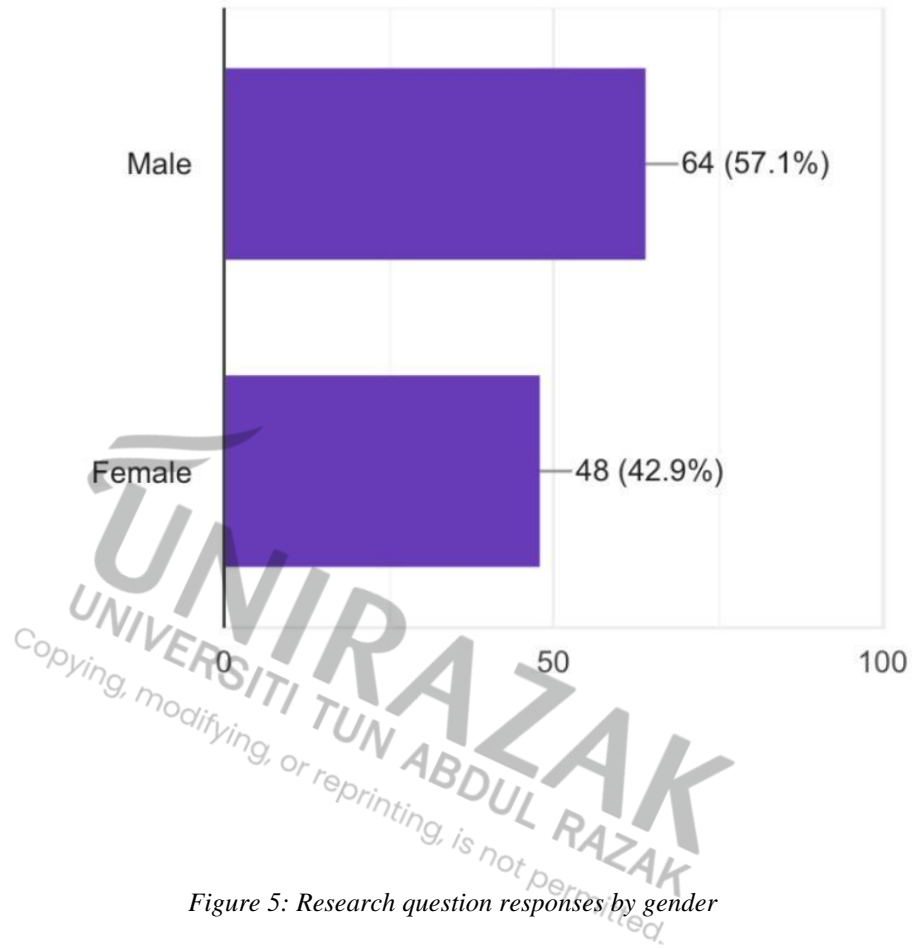| Education					
		Frequency	Per cent	Valid Percent	Cumulative Percent
Valid	High School	8	7.1	7.1	7.1
	Certificate	16	14.3	14.3	21.4
	Diploma	25	22.3	22.3	43.8
	Bachelor Degree	53	47.3	47.3	91.1
	Master Degree	10	8.9	8.9	100.0
	Total	112	100.0	100.0	

Table 4: Frequency of Education

Educational qualification of the participants of this study has been represented through table 4. It has been understood from the responses that most of the customers (53) have a bachelor's degree. A diploma is the second largest group of educational qualification as chosen by the participants. High School, Certificate and Master Degree are least chosen responses having frequencies of 8, 16 and 10 sequentially. It is found from the analysis that a major part of the participants has either a bachelor degree or diploma (Jin & Qi, 2018).
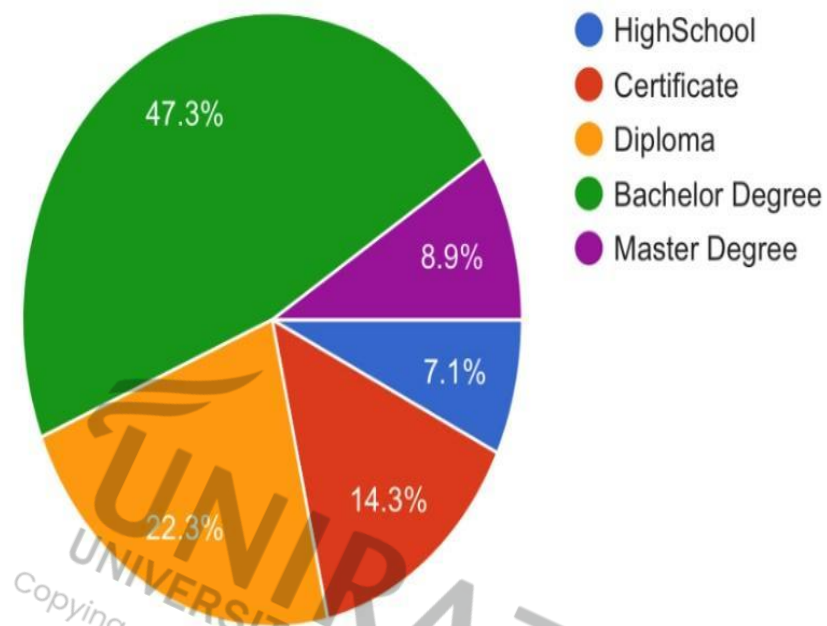
Education

112 responses

- ● HighSchool
- ● Certificate
- ● Diploma
- ● Bachelor Degree
- ● Master Degree

47.3%

8.9%

7.1%

14.3%

22.3%

Figure 6: Research question responses by education

residence		Frequency	Per cent	Valid Percent	Cumulative Percent
Valid	Selangor/KL/Putrajaya	39	34.8	34.8	34.8
	Negeri Sembilan	6	5.4	5.4	40.2
	Johor	16	14.3	14.3	54.5
	Trengganu/Kelantan	12	10.7	10.7	65.2
	Pahang	13	11.6	11.6	76.8
	Palau Pinang	6	5.4	5.4	82.1
	Perak	10	8.9	8.9	91.1
	Kedah/Perlis	7	6.3	6.3	97.3
	Sabah/Sarawak	3	2.7	2.7	100.0
	Total	112	100.0	100.0	

Table 5: Frequency of Residence

Table 5 has provided descriptive statistics of the state of residences that participants belong to. The columns of frequency have suggested the number of responses in respect to each state (Bhatti et al. 2019). Based on the analysis of table 5, it has been identified that 39 of the total respondents are from Selangor/KL/Putrajaya states, which is the highest among all. States such as Johor and Pahang are other most chosen states of residence. The least number of participants belong to Sabah/Sarawak states with only 3 (2.7%) of the total responses.
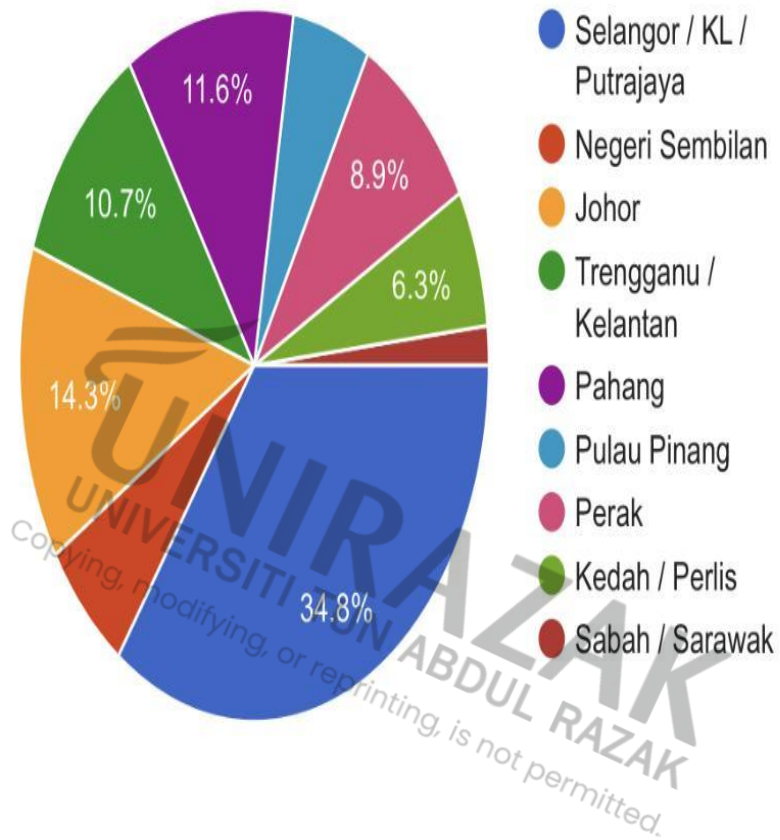
State of Residence

112 responses

Figure 7: Research question responses by state of residence

4.3.2 Correlation Analysis

Correlations		Cleanliness	Logo &_certification	display_space_or_cold_storage	pay_premium	observation
Cleanliness	Pearson Correlation	1	.939**	.879**	.882**	.914**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	112	112	112	112	112
Logo & certification	Pearson Correlation	.939**	1	.902**	.937**	.885**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	112	112	112	112	112
Display_space_or_cold_storage	Pearson Correlation	.879**	.902**	1	.901**	.860**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	112	112	112	112	112
pay_premium	Pearson Correlation	.882**	.937**	.901**	1	.873**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	112	112	112	112	112
observation	Pearson Correlation	.914**	.885**	.860**	.873**	1
	Sig. (2-tailed)	.000	.000	.000	.000	

	N	112	112	112	112	112
**. Correlation is significant at the 0.01 level (2-tailed).						

Table 6: Correlation

The table 6 of the present chapter has included all the essential information related to the analysis of correlation among the variables. As cited by Kafle (2019), correlation analysis has been included in this chapter to understand the relationship between each of the variables such as pay premium, observation, cleanliness and others. The analysis of the variables has been done through correlation analysis with respect to the hypothesis of the research. The hypothesis of the research mainly focused on understanding the relationship between pay a premium (DV), segregation (DV), knowledge (IV). Pay a premium and segregation has been explained in the correlation table through *pay_premium* and *display_space_or_cold_storage* respectively. On the other hand, knowledge is represented through *cleanliness, observation* and *logo_and_certification*.

The value of *Pearson Correlation* in the given table shows the relationship between the variables. According to Barchard & Lapping-Carr (2016), the correlation between variables is considered as significant when it remains closer to the value of 1. For example, the value of the *Pearson Correlation* between *logo_and_certification* and *pay_premium* is .937, which suggests a strong correlation. It suggests that customers are more likely to pay a premium when they have adequate knowledge of logo and certification. Similarly, the correlation between *display_space_or_cold_storage* and *cleanliness* is .879. It indicates that customers consider the halal products clean when it has display space or cold storage.

4.3.3 Regression Analysis

A. Premium Pay as Dependent Variable

Model Summary				
Model	R	R Square	Adjusted R Square	Std. The error of the Estimate
1	.943[a]	.890	.887	.45894
a. Predictors: (Constant), observation, logo_and_certification, Cleanliness				

Table 7: Model Summary

It has been found from table 7 of the model summary that *R Square* value is .890. It suggests that 89% of the total outcomes of the research are explainable (Wathan, 2019). It further indicates that 89% of the total variation in *pay_premium* is explained by independent variables.

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	183.681	3	61.227	290.697	.000[b]
	Residual	22.747	108	.211		
	Total	206.429	111			
a. Dependent Variable: pay_premium						
b. Predictors: (Constant), observation, logo_and_certification, Cleanliness						

Table 8: ANOVA

It has been signified in table 8 of ANOVA that *Sig* value of the regression analysis is .000[b].
As the *Sig* value of the ANOVA table is less than 0.05, it has indicated that the regression
model statistically significantly predicts the variables' outcomes (Sivam et al. 2018).

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.304	.106		2.878	.005
	Cleanliness	-.252	.157	-.175	-1.608	.111
	logo_and_certification	.916	.100	.865	9.128	.000
	observation	.407	.122	.267	3.338	.001
a. Dependent Variable: pay_premium						

Table 9: Coefficients

The *Coefficient* table has suggested that *Pay Premium* is equal to *.304 - .252 (cleanliness)
+ .916 (logo and certification) + .407 (observation)*. It has been found from the equation
that *logo_and_certification* and *observation* have a positive impact on *pay premium*. Hence,
these two variables accept alternate hypotheses (Walker, 2017). Besides, *cleanliness* accepts
the null hypothesis, as it contributes negatively to pay a premium.

B. Segregation as Dependent Variable

Model Summary				
Model	R	R Square	Adjusted R Square	Std. The error of the Estimate
1	.912[a]	.832	.827	.51709
a. Predictors: (Constant), observation, logo_and_certification, Cleanliness				

Table 10: Model Summary

It has been found from the model summary when *Segregation* has been considered as DV that *R Square* value is .832. According to Tang (2018), it can be understood from the value that 83% of the outcomes of regression analysis is explainable. Besides, 83% of the total variances in *Segregation* has been explained by independent variables.

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	143.114	3	47.705	178.413	.000[b]
	Residual	28.877	108	.267		
	Total	171.991	111			
a. Dependent Variable: display_space_or_cold_storage						
b. Predictors: (Constant), observation, logo_and_certification, Cleanliness						

Table 11: ANOVA (Source: Created by Learner)

It has been found from table 11 of ANOVA analysis that *Sig* value is .000[b]. The Sig value of the ANOVA is less than 0.05, hence; the model of regression has statistically and significantly predicted the outcome of variables (Atalyan et al. 2019).

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.168	.119		1.408	.162
	Cleanliness	.125	.177	.094	.704	.483
	logo_and_certification	.575	.113	.595	5.090	.000
	observation	.343	.137	.247	2.496	.014
a. Dependent Variable: display_space_or_cold_storage						

Table 12: Coefficients

It is signified in the *Coefficient* table that *Display Space or Cold Storage* is equal to *.168 + .125 (cleanliness) + .575 (logo and certification) + .343 (observation).* The formula has suggested that each of the independent variables have a positive contribution to the value of *Display Space or Cold Storage.* Therefore, the independent variables support the alternative objectives and reject the null hypothesis when *Segregation* has been considered as DV (Çanga et al. 2019).

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4.4 Summary

It can be summarized based on the above discussion that knowledge of customers has a positive impact on the payment of the premium price and segregation of products. The descriptive analysis has been conducted in this chapter to understand the personal details of the respondent, for instance, age, education, gender and residence. The correlation analysis has demonstrated the strong relationship between each variable. Moreover, regression analysis has been identified as crucial for understanding the acceptability of the hypotheses in the study. Based on the inferences of the finding in this chapter, the conclusion will be drawn up in the next chapter.

CHAPTER 5

CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

Based on the analysis of each chapter of the research, it can be concluded that knowledge of halal products has a significant impact on their purchasing decision. The decision of paying a premium price is influenced by the knowledge of the muslim customers regarding the supply and logistics. The perception of muslim customers towards the supply chain of halal products in Malaysia has been illustrated in this research.

The study has demonstrated the urgency or requirement of the knowledge regarding the standard halal products among the Muslim community. It is important for the Muslim community to understand whether the halal product is as per the appropriate measurements or not. In the first chapter of *Introduction*, it has been found that the growing demand for halal food is aligned with the social development of Muslims in Malaysia. However, a problem regarding the lack of knowledge of the supply chain of halal products has been identified in this study (Karia, 2019). Therefore, the study has developed the objective of exploring the awareness of customers regarding halal food and its supply chain.

The aim of the study is to examine the preparedness of Muslim customers towards paying premium prices and separation of logistics handling. The study has turned out to be essential for understanding the perception of customers and their purchasing behaviour in a pragmatic and theoretical manner. The second chapter of the research is *Literature Review*, which includes the analysis of the existing literature on the topic of halal food. Some of the major factors such as Halal Logistics, Halal Certification and Business Demand are associated with awareness of the muslim customers that have been identified in this chapter. It has been found from the review of existing literature that halal logistics in Malaysia is

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dependent upon three aspects namely, knowledge on halal supply, segregation and handling, and premium price (Talib et al. 2017).

Literature review chapter has indeed the major variables for instance pay a premium (DV), segregation (DV) and adequate knowledge (IV), which are used in the data analysis process. The analysis of the literature has shown that Malaysian customers are required to be aware of logistics and supply of halal to ensure compliance with the religious teaching of Quran (Ingsih & Rahmawati, 2020). It has been identified as the moral responsibility for Muslims to gain awareness of the quality of halal products. The description of the quantitative grading has been included in the chapter of Methodology. The importance of tools and techniques which are used to develop the research have been described in the third chapter. A random sampling method via social networking portals, emails and newsletters have been chosen in the study.

The sampling method has been used to invite Muslims of Malaysia who consumes halal food religiously. The research design of the study has been developed based on the steps such as research design, a target of respondents, data collection and data analysis. In order to collect data, a survey questionnaire has been distributed among users of social media and other platforms. The survey questionnaires have been developed based on two parts. The first part of the questionnaire included demographic questions for muslim consumers. The second part of the questionnaire has consisted of the questions related to the perception and awareness of muslim consumers. Based on the primary quantitative data collected from an online survey, the *Findings and Analysis* chapter has been developed. In this chapter, the research has used SPSS software to analyse primary quantitative data.

The first part of the survey questionnaire has been analysed through descriptive statistics. Descriptive statistics have identified that among the 150 target muslim customers, 112 has given response to the survey questionnaire. The personal details of the 112

participants have been explained through descriptive statistics. The correlation analysis has further been included in this chapter to develop relationships between different variables. There is a strong relationship between each of the variables, which have been included in the survey questionnaire. The model summary and ANOVA test have suggested that the impact of independent variables on dependent variables is significant (Rouder et al. 2016). Moreover, coefficient analysis has indicated that most of the independent variables have a positive contribution to the dependent variables.

The alternative hypothesis of the present has been accepted through the correlation analysis. The overall analysis has been crucial for gaining authentic information on the topic of halal products. The study is a significant piece of work that could be helpful for understanding muslim customers' perceptions regarding halal food.

5.2 Recommendations

Based on the above study, it can be recommended that the halal supply chain will have to maintain a proper logo and certification. This will allow muslim consumers to get knowledge about the supply chain. This, in turn, will allow the muslim customers to pay a premium price. Following are the recommendations:

- The halal supply chain will have to handle the halal and non-halal products separately. According to Azmi et al. (2018), this situation in the nation will enhance the trust of the muslim consumer and will allow them to clear their perception regarding the product.

- The halal supply chain has a separate principle compared to the normal supply chain that reduces the efficiency of the supply chain. As mentioned by Khan, Haleem & Khan (2018), in order to enhance the efficiency of the halal supply chain, they will not be able to implement the normal supply chain. Thus it is required the principles

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should be more simplified that allows the muslim consumer to gather knowledge about the chain.

- In order to improve the supply chain, they will have to gather knowledge about muslim consumer demand in the country that will allow them to maintain the efficiency of the supply chain in Malaysia (Khan, Haleem & Khan, 2018).

- The Halal supply chain will have to create awareness that will enhance the perception of the muslim consumer. This, in turn, allows them to maintain the efficiency of the supply chain.

5.2.1 Linking with objectives

The muslim consumer perception of logistics in Malaysia changes, in order to analyse the changes in perception, the researcher has gathered data through a survey. Additionally, in order to analyse the correlation and to determine the relationship between the variable that includes dependent and independent. As mentioned by Mohamed Elias, Othman & Yaacob (2017), the knowledge of the muslim consumer is considered as the independent variable and pay a premium is considered as the dependent variable. Correlation table has analysed the degree of relationship between the difference between dependent and independent variable.

The evaluation of the correlation tables demonstrates that it has shown a strong positive correlation among the dependent and independent variables. Therefore it signifies that the muslim people of Malaysia are willing to pay a premium price. This also enables them to create a demand for the 100% halal food, which attracts the upstream players of the nation. As mentioned by Mohd Saifudin, Othman & Mohamed Elias (2017), in order to the efficiency of the halal supply chain, the muslim consumers have to gain knowledge regarding the halal supply chain. This also creates awareness for the people in the nation as well.

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The value of the correlation between pairs of premium price and knowledge is zero points .919 that describes that there is a positive correlation between them. Additionally, it is mentioned the evaluation between them is strongly positive. Therefore, the muslim customers are willing to pay a premium price in order to attain a halal supply chain. The core relationship between handling halal and non-halal products is also positive. This signifies that the halal supplies and is able to handle both known halal and halal products separately. Near about 60% of the people belong to the Muslim religion in Malaysia.

It is easier to provide an understanding of the halal supply chain in the nation. From the table of correlation, muslim customers are more likely to pay a premium when they have adequate knowledge of logo and certification. Therefore, the halal supply chain has to provide adequate knowledge regarding the principles. It demonstrates that muslim customers consider the halal products clean when it has display space or cold storage. The centre connection between dealing with halal and non-halal items is additionally sure. This implies that the halal supplies and can deal with both known halal and halal items independently. Close about 60% of individuals have a place with the Muslim religion in Malaysia.

It is simpler to give a comprehension of the halal supply chain in the country. From the table of relationship, clients are bound to pay an excellent when they have satisfactory information on logo and confirmation. Hence the halal supply bind needs to give sufficient information with respect to the standards. It exhibits that clients consider the halal items clean when it has shown space or cold stockpiling in order to decide the connection between the variable that incorporates dependent and autonomous. The information on the buyer is considered as the autonomous variable, and pay a premium is considered as the needy variable.

The table has broken down the level of connection between the distinction between reliant and autonomous variables. According to Jaafar et al. (2016), the assessment of the relationship tables exhibits that it has demonstrated a solid positive connection among the ward and the independent variable. Accordingly, it implies that the individuals of Malaysia muslim are eager to address the premium cost. This likewise empowers them to encourage an interest for the halal food which pulls in the upstream players of the country. It has allowed to investigate the connection and to decide the connection between the variable that incorporates reliant and free. This situation, the information on the buyer is considered as the autonomous variable and pays a premium is considered as the needy variable.

Correlation table has examined the level of connection between the distinction between reliant and free factors. As mentioned by Usmana (2020), the assessment of the connection tables exhibits that it has indicated a solid positive relationship among the ward and independent variable. In this way, it implies that the individuals of Malaysia muslim are happy to follow through on premium cost. This empowers them to drive interest for the 100% halal food which draws in the upstream players of the country. Finally, the analysis of the correlation table has allowed meeting the objective of the research work.

5.2.2 Limitations

The limitation of the present research is associated with the data collection and analysis method. The primary qualitative and secondary qualitative analysis has not been done in the study. In order to ensure the authenticity and reliability of the research outcomes, a statistical analysis based on SPSS has been used in this study. The primary data has helped the research to meet the research objectives and examine the hypothesis.

Inclusion of primary qualitative methods would have provided descriptive information on consumer preferences (Lee et al. 2018). Besides this, the study has not shed light on the perception of consumers who do not consume halal food on a regular basis (Lestari et al. 2018). Inclusion of such consumers would have made the study useful to understand the perception of consumers on halal products, irrespective of their community and food habits. It would be crucial for creating awareness about the significance of halal products in different communities.

5.2.3 Future Scope

The detailed analysis awareness of the halal food in Malaysia has been emphasized in this study in reference to logistics and supply chain. The present research is focused on the perception and awareness of muslim consumers on the halal food supply chain (Zailani et al. 2017). The information acquired from the study can be used in future research on this particular topic. The concepts and theories related to supply and logistics have been aligned with the muslim consumer purchasing decision. It would be crucial for gaining specific knowledge of consumer behaviour for halal foods in Malaysia. A primary quantitative analysis has been used in this study to meet the research objectives, which can be useful for future research. The findings of the analysis can be used by future researchers to develop a secondary study on this topic.

REFERENCES

Al-Baqarah (n.d). The Holy Quran, Chapter 57, v.110.

Al-Harran, S., & Low, P. (2008). Marketing of halal products: The way forward. *Halal Journal*. Retrieved from http://www.halaljournal.com.

Atalyan, A. V., Kuzmin, O. V., & Suturina, L. V. (2019). Using of RM-Anova in R and SPSS software on the example of prospective analysis of glucose tolerance test results in patients with polycystic ovary syndrome. *Ekologiya cheloveka (Human Ecology)*, (3), 53-61.

Azmi, F., Abdullah, A., Bakri, M., Musa, H., & Jayakrishnan, M. (2018). The adoption of halal food supply chain towards the performance of food manufacturing in Malaysia. *Management Science Letters*, *8*(7), 755-766.

Barchard, K. A., & Lapping-Carr, L. (2016). Correlation in SPSS 22.0: Assignment and grading rubric. Retrieved from:https://digitalscholarship.unlv.edu/psychology_fac_articles/174/

Bhatti, N. B., Siyal, A. A., Qureshi, A. L., & Bhatti, I. A. (2019). Socio-economic impact assessment of small dams based on T-paired sample test using SPSS software. *Civil Engineering Journal*, *5*(1), 153-164.

Bonne, K., & Verbeke, W. (2007). *Religious values informing halal meat production and the control and delivery of halal credence quality*. Department of Business Studies and Public Administration, Hogeschool Ghent, Ghent.

Çanga, D., Yenipınar, A., Karaokur, Ö. F., Önem, A. B., & Efe, E. (2019). Contrast analysis on single factorial studies and solution with SPSS. *Black Sea Journal of Engineering and Science*, *2*(1), 1-6.

Dimara, E., & Skuras, D. (2005). Consumer demand for informative labelling of quality food and drink products: a European Union case study. *Journal of Consumer Marketing, 22*(2), 90-100.

Endang, S.S. (2010). Business opportunities for halal products in the global market: Muslim consumer behaviour and halal food consumption. *Journal of Indonesian Social Sciences and Humanities*, 3, 151-160.

Essoo, N., & Dibb, S. (2004). Religious influences on shopping behaviour: An exploratory study. *Journal of Marketing Management*, 20, 683-712.

Halal Choices (2013). What is sharia? Retrieved from http://www.halalchoices.com.au/what_is_sharia.html

Halal Development Corporation (HDC) (2010). Halal Industry Training and Services. Retrieved on 14 February 2010. http://www.hdcglobal.com/publisher/bhi_ind_train_serv

Ingsih, I. S., & Rahmawati, A. (2020). Public perception of transportation systems in the halal logistics. *Civil and Environmental Science Journal (Civense)*, *3*(2), 94-100.

Ismail, K., & Phoon, O. F. (2007). Consumer intention in purchasing halal food products. Retrieved from http://econ3.upm.edu.my/epms/view.php?cat=journal&jt=all

Jaafar, H. S., Faisol, N., Rahman, F. A., & Muhammad, A. (2016). Halal logistics versus halal supply chain: A preliminary insight. In *Contemporary Issues and Development in the Global Halal Industry* (pp. 579-588). Springer, Singapore.

Jayakumar, M., & Rajalingam, S. (2019). Effective evaluation of students attainment in assessment components for the unit taught in large classes by using SPSS v17. *Asian Journal of Education and Social Studies*, 1-8.

Jin, Y., & Qi, X. (2018). The SPSS-based analysis of reading comprehension: Take grade eight english mid-term test for example. *Journal of Language Teaching and Research*, *9*(5), 939-945.

Kafle, S. C. (2019). Correlation and regression analysis using SPSS. *Management, Technology & Social Sciences*, 126.

Karia, N. (2019). Halal logistics: practices, integration and performance of logistics service providers. *Journal of Islamic Marketing*. Retrieved from: https://www.researchgate.net/profile/Noorliza_Karia/publication/334689514_Halal_logistics_practices_integration_and_performance_of_logistics_service_providers/links/5dd03632a6fdcc7e13876df7/Halal-logistics-practices-integration-and-performance-of-logistics-service-providers.pdf

Khan, M. I., Haleem, A., & Khan, S. (2018). Defining halal supply chain management. In *Supply Chain Forum: An International Journal*, *19*(2), 122-131.

Kim, B. (2005). *Mastering business in asia: Supply chain management*. John Wiley & Sons, Singapore.

Laureano, R. M., & Botelho, M. D. (2017). IBM SPSS Statistics–O Meu Manual de Consulta Rápida. *Lisboa, 3ª Edição*. Retrieved from:https://static.fnac-static.com/multimedia/PT/pdf/9789726188865.pdf

Lee, M. S., Ray, K. N., Mehrotra, A., Giboney, P., Yee, H. F., & Barnett, M. L. (2018). Primary care practitioners' perceptions of electronic consult systems: A qualitative analysis. *JAMA Internal Medicine*, *178*(6), 782-789.

Lemenkova, P. (2019). Numerical data modelling and classification in marine geology by the SPSS statistics. *International Journal of Engineering Technologies*, *5*(2), 90-99.

Lestari, Y. D., Susanto, J. M., Simatupang, T. M., & Yudoko, G. (2018). Intention towards halal logistics: A case study of Indonesian consumers. *Journal for Global Business Advancement*, *11*(1), 22-40.

McCort, J. D., & Malhotra, N. L. (2001). A cross-cultural comparison of behavioural intention models –

Mishra, P., Pandey, C. M., Singh, U., Gupta, A., Sahu, C., & Keshri, A. (2019). Descriptive statistics and normality tests for statistical data. *Annals of cardiac anaesthesia*, *22*(1), 67.

Mohamed Elias, E., Othman, S. N., & Yaacob, N. A. (2017). Relationship of spirituality leadership style and SMEs performance in halal supply chain. *International Journal of Supply Chain Management (IJSCM)*, *6*(2), 166-176.

Mohd Saifudin, A., Othman, S. N., & Mohamed Elias, E. (2017). Exploring in setting a model for Islamic supply chain in Malaysia. *International Review of Management and Marketing*, *7*(1), 95-102.

Rouder, J. N., Engelhardt, C. R., McCabe, S., & Morey, R. D. (2016). Model comparison in ANOVA. *Psychonomic Bulletin & Review*, *23*(6), 1779-1786.

Sitasari (2008). *Preferensi atribut dan perilaku konsumen kartu kredit syariah*. (Laporan Tesis. PSTTI–UI -in Bahasa Indonesia)

Sivam, S. S. S., Karuppaiah, S. M., Yedida, B. K., Atluri, J. R., & Mathur, S. (2018). Multi response optimization of setting input variables for getting better product quality in machining of magnesium AM60 by grey relation analysis and ANOVA. *Periodica Polytechnica Mechanical Engineering*, *62*(2), 118-125.

Talib, M. S. A., Rahim, M. A. R. A., Chin, T. A., & Hamid, A. B. A. (2017). Logistics service providers perceptions on halal logistics certification. *International Journal of Logistics Economics and Globalisation*, *6*(4), 311-331.

Tang, S. (2018, April). The experiment research on giant magnetoresistance based on data analysis of SPSS. In *2018 8th International Conference on Applied Science, Engineering and Technology (ICASET 2018)*. Atlantis Press.

Tieman, M. (2010). *Halal logistics, logasiamag.com*, Retrieved from http://www.logasiamag.com/article-1744-Asia.html,

Usmana, I. (2020). Halal supply chain management practice model: A case study in evidence of halal supply chain in Indonesia. *Int. J. Innov. Creat. Chang*, *11*(11), 440-451.

Walker, D. A. (2017). JMASM 48: The Pearson product-moment correlation coefficient and adjustment indices: The fisher approximate unbiased estimator and the Olkin-Pratt Adjustment (SPSS). *Journal of Modern Applied Statistical Methods*, *16*(2), 29.

Wan Omar, W.M., Muhammad, M.Z., & Che Omar, A. (2010). An analysis of the Muslim consumers' attitudes towards 'halal' food products in Kelantan, Universiti Teknologi MARA, Kelantan.

Wathan, J., Higgins, V., Elliot, M., Browne, W., Carlton, C., Morales Gomez, A., & Buckley, J. (2019). *Multiple regressions in SPSS worksheet (Quiz and Practical)*. Retrieved from:http://eprints.ncrm.ac.uk/4277/5/LCFMultRegPrac.pdf

World Halal Forum Post-Event Report. 21 & 22 June 2010.

Zailani, S., Iranmanesh, M., Aziz, A. A., & Kanapathy, K. (2017). Halal logistics opportunities and challenges. *Journal of Islamic Marketing*. Retrieved from:http://conghalaliran2017.mums.ac.ir/editor_file/Halal%20literature%20review%20%282%29.pdf

Zakaria, Z. (2008). Tapping into the world halal market: Some discussions on Malaysian laws and standards. *Shariah Journal, 16*

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TITLE OF PROJECT PAPER: **MUSLIM CONSUMERS' PERCEPTIONS OF HALAL LOGSITICS IN MALAYSIA**

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