FACTORS INFLUENCING READINESS TOWARDS HALAL LOGISTICS AMONG FOOD AND BEVERAGE INDUSTRY IN JOHOR

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DECLARATION

I hereby declare that all the work of this thesis entitled "THE FACTORS INFLUENCING READINESS TOWARDS HALAL LOGISTICS AMONG FOOD AND BEVERAGE INDUSTRY IN JOHOR" is original done by myself and no portion of the work encompassed in this research project proposal has been submitted in support of any application for any other degree or qualification of this or any other institute or university of learning.

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DEDICATION

I would like to appreciate the dedication of my beloved family members who educated me and motivate me to learn until I achieve my degree level. Alhamdulillah and thank you Allah for this opportunity that you gave me. Thank you to my parents that did their best in order to let me fly higher till this level. My mak, Zarina Binti Abd Wahab and my Abah, Buang Bin Abdullah Timin has encouraged me to study and be the best version of myself. My brother and sister that helped me throughout my degree life, they supported me so that I could finish my study and make my family proud.

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Not to forget my classmate and roommate in UTeM, thank you for being there through my ups and down. I would not finish this degree without all of you. And also, I express a deep sense of gratitude to my lecturer whom also my supervisor for my final year project, Dr Siti Norbaya binti Yahya and my fellow friends. She has provided me fully support and advice throughout this research. Without their blessing and encouragement, this research is impossible to complete within short period of time.

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ABSTRACT

Supply chain management and logistics are both important instrument for any kind of industry nowadays. The increase number of population in the world subsequently resulting higher number of Muslim population. Therefore, in order to keep track with halal food supply, each of food and beverage industry play important role in adopting halal logistics in their organization. Concern on Halal food and beverage has become one of the main reason to study the factors influencing readiness towards Halal logistics among food and beverage industry in Johor. Manufacturer need to be aware of this matter in order to provide a clean and Halal food and beverage towards customer. Therefore, with the emerged economy in Johor, the researcher would like to study this factors specifically in Johor. The goal for this study is to determine identify factor influencing readiness towards halal logistics among food and beverage industry in Johor. According to prior study, there are three variables that have been used to measure readiness of food and beverage industry which are political factors, social factors and technological factors. A total of 260 questionnaires have been sent out to respondents related in food and beverage industry. Furthermore, the findings of the respondents will be examined using the Statistical Package for Social Sciences (SPSS). To evaluate the researcher's hypothesis, descriptive statistics, Pearson's correlation coefficient, and multiple regression analysis are utilized. Based on the result, politic, social and technological factors have a significant relationship in influencing readiness towards halal logistics along food and beverage industry in Johor. In future research, the researchers can use the proposed new conceptual framework to carry out the study or add other variables for the study.

Keyword: Halal logistics, food and beverage industry

ABSTRAK

Pengurusan rantaian bekalan dan logistik kedua-duanya merupakan instrumen penting untuk sebarang jenis industri pada masa kini. Pertambahan bilangan penduduk di dunia seterusnya mengakibatkan bilangan penduduk Islam semakin tinggi. Oleh itu, bagi menjejaki bekalan makanan halal, setiap industri makanan dan minuman memainkan peranan penting dalam mengguna pakai logistik halal dalam organisasi mereka. Keprihatinan terhadap makanan dan minuman Halal menjadi salah satu sebab utama untuk mengkaji faktor-faktor yang mempengaruhi kesediaan ke arah logistik Halal dalam kalangan industri makanan dan minuman di Johor. Pengilang perlu mengambil tahu tentang perkara ini untuk menyediakan makanan dan minuman yang bersih dan Halal kepada pelanggan. Oleh itu, dengan kemunculan ekonomi di Johor, pengkaji ingin mengkaji faktor ini secara khusus di Johor. Matlamat kajian ini adalah untuk mengenal pasti faktor yang mempengaruhi kesediaan ke arah logistik halal dalam kalangan industri makanan dan minuman di Johor. Mengikut kajian lepas, terdapat tiga pembolehubah yang telah digunakan untuk mengukur kesediaan industri makanan dan minuman iaitu faktor politik, faktor sosial dan faktor teknologi. Sebanyak 260 borang soal selidik telah dihantar kepada responden berkaitan industri makanan dan minuman. Seterusnya, dapatan responden akan diteliti menggunakan perisian Statistical Package for Social Sciences (SPSS). Untuk menilai hipotesis penyelidik, statistik deskriptif, pekali korelasi Pearson, dan analisis regresi berganda digunakan. Berdasarkan keputusan tersebut, faktor politik, sosial dan teknologi mempunyai hubungan yang signifikan dalam mempengaruhi kesediaan terhadap logistik halal di sepanjang industri makanan dan minuman di Johor. Dalam penyelidikan masa depan, penyelidik boleh menggunakan konsep baru yang dicadangkan

Kata kunci: Logistik halal, industri makanan dan minuman

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CHAPTER 1

INTRODUCTION

1.1 Introduction

This chapter explained about the introduction of the research. The introduction of this research contains background of study, problem statement, research objectives, research questions, scope and limitation of study and significance of study.

1.2 Research Flow

1.3 Background Study

According to JAKIM (Jabatan Kemajuan Islam Malaysia), the word *'Halal'* is originated from an Arabic word which means permitted or allowable. This is according to the guidelines given by Allah (The God) in the Qur'an and Sunnah by Muhammad (The Prophet) the Messenger of Allah. This has been the Muslim dietary law ever since Islam has spread from Arab to around the world but *Halal* aspect is not only about the ingredients of the food products. It is including the process the food products get through from raw materials until final food

products. Anything related to *Halal* food or/and non-food products should be complied with Islamic rules including the logistics activities for the *Halal* products, based on the 5th principle of *Halal* (HDC, 2012). In term to ensure that the *Halal* aspects is happen thorough the whole process of food products to end customers, logistics activity has become a part of the process of *Halal* products. *Halal* logistics activities involved *halal* transports, *halal* warehouse and *halal* retail. The *halal* industry was expected to contribute 8.1 per cent to the country's gross domestic product (GDP) and generate RM56 billion export revenue in 2025 compared to Rm30.6 billion in 2020, according to the 12th Malaysia Plan (MIDA, 2021).

Halal logistics have been a very popular industry nowadays as Muslim people started to be very serious about the source of food they want to buy and also the process the products going through including the transportation the product takes in order to come to retailer and customer. As we can see that Halal food is not only searched by Muslim people but also non-Muslim people as most of people claim that Halal food is clean and come from a very trusted farmer, seller or manufacturer. This is the reason why *halal* logistics have become an important scheme in the *halal* market. Halal logistics has known as an innovation in the logistics industry and grow bigger day by day. It helps to avoid *syubhah* or a doubtful feeling while having the products. Not only transportation that involve but it also includes the warehousing, material handling, packaging and also retailing the food product.

1.4 Problem Statement

Nowadays people started to be aware of *halal* food and it has create rising in halal demand around the world especially in Johor which majority lives by Muslim. We can see at the supermarket that sometimes *halal* and *non-halal* food get mixed up which makes consumer confused and feel doubted to buy the product. Therefore, the increasing of technologies application has also increased the awareness of people towards halal product which people can search the details about product they want to buy. Currently there are growing number of F&B manufacturers getting *halal* certificate from both Muslim and Non-Muslim manufacturers. The real question is that did this F&B industry ready to adapt *halal* logistics? It will definitely take a few steps for a company of manufacturers to be ready. Hence, this will help to fulfill the *halal* demand nowadays.

In addition, there are emerged in Halal of economy sector in Johor whereas J-Biotech CEO Wan Amir Jeffery Wan Abdul Majid points out that JHP provides facilities and services that add value to the halal and biotech industries, such as scientific halal laboratories, consolidated processing and packaging, cold storage and logistics, and a one-stop centre to assist businesses with licencing approval and taxation issues (Leng, T. A., & Leng, T. A., 2016).

The global *halal* logistics market size was valued at USD 289.96 billion in 2019 and it is expected to expand at a compound annual growth rate (CAGR) of 8.4% from 2020 to 2027 (Gr and view research, 2020). In 2018, Muslim spent over USD 2 trillion on *halal* and Islamic lifestyle. Furthermore, the increasing number of Muslim make the *halal* industry expanded from not just the *halal* food product but also into various lifestyle like halal pharmaceutical, hospitality, fashion, travel services and more. Tentu Teguh Sdn Bhd (TTSB) CEO Mohd Noor Abd Salam tells City & Country stated that a HALAL economy would emerge as another economic engine for Iskandar Malaysia, with Johor having opened the industry to Japanese and other Asian enterprises (Leng, T. A., & Leng, T. A., 2016).

Therefore, there a huge potential growth for this *halal* market in future and definitely rise in demand for *halal* logistics will happen. This will make food and beverage industry growth rise up and the service providers and F&B company should be preparing in all aspect to accept this new wave of innovation in logistics. They should look into the infrastructure of the

warehousing, transportation, packaging and material handling for the *halal* product. this will need collaboration between political, social and technological factors.

1.5 Research Objectives

The aim of the study is to study the factors influencing readiness towards *halal* logistics among food and beverage industry in Johor. The research objectives developed in this study was based on problem statement above as follow:

1) To identify the factors influencing readiness of F&B industry toward *halal* logistics
2) To analysis the relationship between factor influencing the readiness of F&B toward *halal* logistics
3) To examine the most significance factors faced by F&B industry toward *halal* food logistics

1.6 Research Questions

The purpose of this study is to answer the following questions:

1) What are the factors influencing readiness of F&B industry toward *halal* logistics?
2) What are the relationship between factor influencing the readiness of F&B toward *halal* logistics?
3) What is the key challenges face by F&B industry toward *halal* food logistics?

1.7 Scope and Limitations of Study

The research is about the factors influencing readiness towards halal logistics among food and beverage industry in Johor. The scope of this study comprises the readiness of F&B industry in Johor. This research will be conducted in Johor, Malaysia and the respondent will be chosen among over 764 companies in this industry including the employees who work in the F&B industry.

1.8 Significance of Study

From research perspective, this study is expected to be in terms of factors influencing readiness towards halal logistics among food and beverage industry in Johor and to encourage more halal logistics studies to be conducted in this developing countries to determine the similarity of studies conducted. Furthermore, this study will bring benefits to food and beverage company to act as a reference for halal logistics companies to have a deeper level of understanding about implementing halal logistics instrument in Johor. As halal food chain consumer is increasing, this study can identify the factors influencing readiness towards halal logistics and increase the awareness of food and beverage company on their readiness implementing halal logistics.

1.9 Summary

This chapter outlines the overview of the research study. The researcher has briefly explained the background of study, defined problem statement, research objectives and research questions of the study. The research objectives and questions are developed according on the problem statement. Furthermore, the researcher has explained scope and limitation of study the coverage and restrictions of this study. Lastly, significance of study is described by defining the goal of study and advantages of this research.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This chapter analyses empirical knowledge on dependent variable and independent variable of this study. The relevant literature is explained in terms of economy, social and technology. This section provides background information about the conceptual framework developed to elaborate on the relationship between factors influencing readiness toward halal logistics. In this chapter, hypothesis testing is covered to predict the expected outcome of this study.

2.2 Malaysia's Food and Beverage Industry

Food and beverage industry in Malaysia has contributes a huge amount of money to Malaysian economy. It is one of the industry that is popular around the world also in Malaysia because food is an essential component in a person's life. In 2018, the Malaysia Food and Beverage Industry are growing with 7.6% rate whereas around RM117.822 billion in valued (Flanders and Trade, 2020). There are a lot of variety for food and beverage industry in Malaysia which also include all the processed food with Asian taste and also diet preference food with western twist recipes. This industry is dominantly concurred by Small and Medium Enterprises (SMEs) and also Multinational Companies (MNCs) which also manufactured process food in

Malaysia. Other than that, in Malaysia there are also many food outlets, full service restaurants, small stalls, fast food restaurant, bars and café (Maizatulaidawati Md Husin, Suizilawati Kamarudin & Adriana Mohd Rizal, 2021). Even though Malaysia is popular by its diversity of food and its own agricultural product but the market food and beverage product are not limited to only that. Based on Malaysian Investment Development Authority (2019), food that has been processed in Malaysia are estimated exported to more than 200 countries around the world and also RM21.176 billion from that has been contributed to Malaysian economy.

We can see that Malaysian agricultural product are becoming famous among other countries meanwhile demand for American fast food franchise in Malaysia are higher by year like McDonalds, KFC and Pizza Hut but in 2020 demand for plant-based and healthy food has remarkably increase. in 2020/2021 GrabFood Trend Report has shown that seven out of 10 Malaysians people choose to order healthier food and are willing to pay more money for it (The Stars, 2022). This shown that there is food shift demand in food and beverage industry in Malaysia and even though there are a lot of cheap and tasty fast food franchise in Malaysia but Malaysian are willing to pay more money to healthier plant-based foods. We can see that there are increase in organic food consumption in Malaysian Food and Beverage Industry. With the help of food delivery services and apps such as McDelivery, Kfc Delivery, FoodPanda and GrabFood, food delivery trend also rising and making food and beverage industry learn to adapt with this food delivery trends in order to keep track with the high demand for foods Malaysia (Oppotus, 2022).

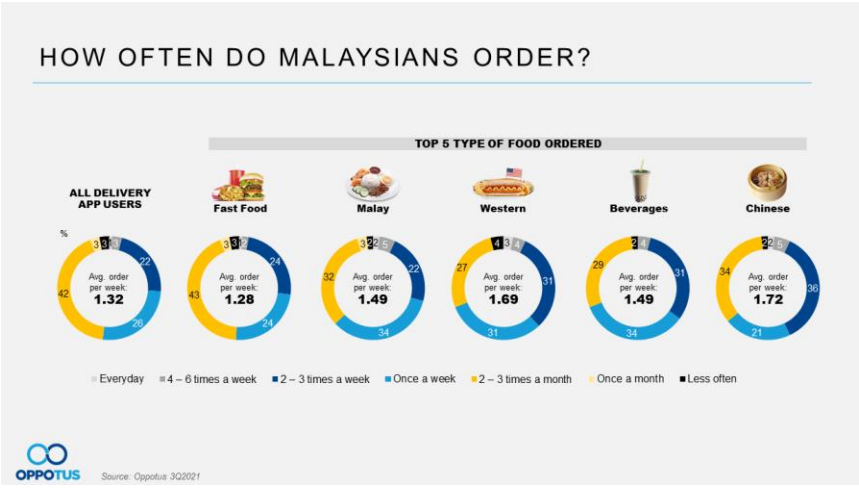

FIGURE 2.2: Frequency of Usage (OPPOTUS, 2022)

Based on picture above, Malaysian makes an order delivery around 1-2 times a week using delivery services and apps on average and most of the user ordered 2-3 times per months which make it 42% in percentage monthly. With the high demand of food in food and beverage company, there will definitely effecting the trend in halal logistics.

2.3 Halal Logistics

According to Azmin Azliza Aziz and Suhaiza Zailani (2017), Since halal is becoming more popular across the supply chain, the food and logistics industries are working together to ensure the 'halalness' of the products when they reach the final client. This leads to the establishment of halal logistics, in which logistical activities are carried out in accordance with halal standards. (Abdul, Ismail, Hashim & Johari, 2009). Halal logistics is all of the process of managing the procurement, movement of product, packaging, storage for both of food and non-food, through the organization and supply chain compliance. Besides, with the increasing demand of halal product it has been one of the challenges for halal manufacturer and logistics company. This has become the same for food and beverage company whereas the success of halal marketplace in Malaysia has become the influenced via halal guarantee product (Eko Ruddy Cahyadi, 2021). Halal logistics is very significance nowadays as the ascending of popularity for halal items worldwide same as in Malaysia. As a result, halal food logistics has become important in order to ensure the kosher dependability of the whole logistics process indicated above, the process of procurement, movement, manufacturing, storage, and organization of the product meet and follow Shariah Law for Halal logistics.

In order to guarantee that the food and beverage product meet and follow the Shariah Law, halal logistics players need to focused on their equipment and also facilities specification for the halal certified products (Mubin, N. A. ., Rahman, A. A. ., Kamarulzaman, N. H. ., & Yusof, R. N. R., 2021). This include the transportation like truck, lorry or ships. This is based on JAKIM to ensure that company who send halal certificate application find the meet and follow their terms and regulation to earn the certificate. Deputy Minister in the Prime Minister's Department, Fuziah Salleh stated that JAKIM has rigorous criteria for halal certification because

of the notion of 'halalan toyyiban,' which means not only being 'halal' (permissible), but also 'toyyib' (acceptable). This standard is recognized by 45 nations and 78 organizations worldwide, and we cannot lower it (MalayMail, 2019). However, majority of the business in food and beverage industry are still hesitant in implementing halal logistics in their business operation due to high criteria stated by JAKIM.

One of the halal arrangements is the organization's requirement to ensure the halal acceptability of such supply chain. Storing, shipping, and terminal operations are the three most important aspects of HFL. In Malaysia, halal gauges produced by the certified authority; Department of Standards Malaysia (MS) that correspond to Shariah law are available (Norlila Mahidin, Adam Mohd Saifudin & Siti Norezam Othman,2017). Besides, halal logistics practices are important due to upgrade of supply chain performance. A lot of study concerning halal logistics and SMEs, implementation of supply chain and influence of stakeholders toward halal logistics (Husin et al,2021).

2.4 Political Factors

Malaysia has a very strategic position which lead to a good external trade and Malaysian government gave a very strong support to the logistics industry. The government's responsibility is evident in the logistics business, since political interventions, such as the building of critical logistical facilities, will drive the growth and development of the logistics industry (Abu Talib & Abdul Hamid,2016). Other than that, government role in logistic industry effecting employee's promotion, education, training and also supplying the employee's needs and rights. In tern of political and government roles in logistics industry especially in halal logistic medium, there are many efforts given from the government like financial supports for both employees and business owner, certification and regulations for company in this industry and also tax incentives.

Apart from that, not only by the various efforts shown by the government in helping halal logistics industry, government role also includes each of halal logistics process such as planning, training, developing, adopting and also educating Halal in this industry (Talib et al,2016). The initiative and encouragement that the government gave to halal logistics industry and food and beverage industry are one of investment for logistics industry future itself. This is also to increase the use of information communication technology (ICT) in Halal Logistics toward 4.0 robotic shift. Government assistance, according to Talib (2014), also takes the shape of rules, processes, and directives.

Malaysia Halal Certification has become acknowledged for its reliability as a result of government initiatives, and Malaysia is noted for its Halal certification. Government assistance, according to Talib (2014), also takes the shape of rules, processes, and directives. Malaysia Halal Certification has become acknowledged for its reliability as a result of government initiatives, and Malaysia is noted for its Halal certification. As the Halal showcase grows, with billions of clients and a plenty of cash and work prospects, capable governments must advance Halal in arrange to attain financial advance. Governments must help in advancing the Halal industry by creating a Halal affirmation framework, subsidizing colleges and inquire about organizing to conduct R&D in Halal-related thinks about, giving offices for Halal businesses, and sorting out preparing for industry specialists to create Halal professionals/auditors (Haleem, A.; Khan, M.I.; Khan, S.,2021).

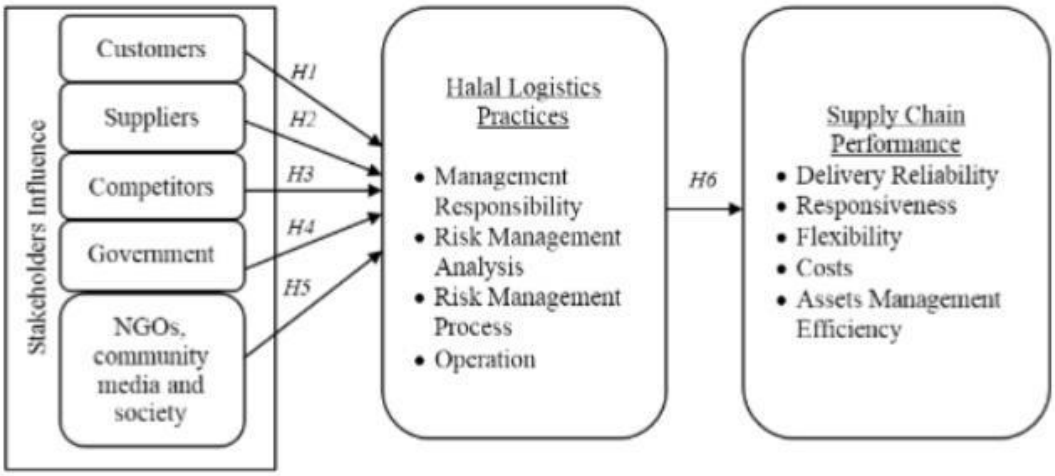

FIGURE 2.4: Theoritical Framework developed by Mubin et al. (2021)

2.4.1 Regulation

By and large, governments administer by implementing sets of rules and controls for trade communities, and society at huge. Ngah, A.H., Zainuddin, Y. and Thurasamy, R. (2015) propose that endeavors from the government through controls and requirement are required which government ought to be more emphatic in advancing halal warehousing. The part of government in empowering more coordination's firms to offer halal-compliant administrations is basic since the thrust is more typical than organizational self-initiatives. Even though the role of government with the regulations effort they put for logistics industry, it is still focusing more on halal goods and majority on food and beverage product but Talib et al. (2015) argue that the government should also focus on placing the regulations for the service sector in halal logistics industry. We can see that government did play a huge role in changing the vision seen by halal logistics company in food and beverage company whereas the regulatory requirement can help the firms to follow the rules and regulation stated by the government. Therefore, these firms can practice on halal operation and make halal logistics included in the industry-standard operating procedure which also helps fulfill national agenda based on Tieman and van Nistelrooy (2014) research.

Based on Ngah et al. (2015) study he stated that the government has built up halal logistics standards in food and beverage industry and also establish certification and legislation for halal logistics firm. This become one of the factors that influence the readiness of food and beverage industry towards halal logistics. Regulations that have been establish by the government help food and beverage company to prepare and be ready adopting halal logistics. For case, the Malaysian government is commended for organization halal benchmarks and certification starting with the exceedingly referenced Malaysian Standard for Halal Nourishment Generation, Arrangement, Handling, and Capacity, the MS1500 (Ngah et al., 2015). However, Talib and Hamid (2014) agreed that current halal logistics industry measures are on an intentional premise and there are certain quarters within this industry that are hesitant to actualize halal logistics, and cite costs, collaboration, and motivations as the common inhibitors.

2.4.2 Infrastructure

Other than establish regulation for food and beverage industry for implementing halal logistics, government also responsible in providing a reliable infrastructure for logistics facilities in this industry. By mean logistical infrastructure, government are doing their best ensuring that ports, roads networks, hubs and warehousing facilities are available to be used for logistics company around Malaysia (Ngah et al., 2015). According to Malaysian Investment Development Authority (MIDA) (2019), The East Coast Railroad Line (ECRL) venture is another major activity by the Government towards building world-class logistics framework to back worldwide exchange exercises in Malaysia. This extend is anticipated to complement the Oceanic Silk Street (MSR), an advancement procedure to boost framework network all through Southeast Asia, Oceania, the Indian Sea, and East Africa. Malaysia will be on track in creating network and growing the country's economy to other districts as the MSR activity advances.

Apart from that, Information Technology (IT) also one of the nonphysical support that gave by the government in order to upgrade the logistical infrastructure to a better feature. Ngah et al. (2015) informed that IT improvement is crucial for traceability of halal supply chain in

Malaysia. He also stated that with the assistance of government running and improving the logistics ports, hubs and warehouse facilities, it will help to encourage logistics firms to adopt halal logistics which also encourage food and beverage company on implementing halal logistics to deliver their goods. Good infrastructure provided by the government will be the reason for food and beverage industry to be ready adopting halal logistics and also become one of the main reasons behind Malaysian supply chain progress in Halal industry (Talib and Hamid, 2014).

2.5 Social Factors

Other than politic, social also play a huge role in the demand of goods and services in food and beverage industry. Since people started to get to know more about their foods especially as for Muslims who need to be knowledgeable on their food intake, halal products become popular by years. This include plant-based foods that are not only Muslims but non-Muslim also interested in. Nowadays, halal food is also known as a symbol of healthy and clean food that come from a trusted source (Ambali, A. R., & Bakar, A. N., 2013).

Moreover, a danger worth saying is the need of ability and information of Halal logistics. Talib et al. (2013) mention in his study that the shortage of ability and information around Halal and coordinations combined is an issue got to be address ed. Information of both Halal process must be hand-inhand in arrange to attain unique Halal logistics administrations, but as specified prior, there's need of experts in logistics industry. Other than that, employee's social communication in adopting halal logistics in a company also play an important role which affecting the readiness of food and beverage company to accept halal logistics.

2.5.1 Concern on Halal

As stated above, the number of Muslims consumer are growing and they are more likely to be aware about the food they consume (Bonne & Verbeke, 2008). This become one of the

aspect that influencing the readiness adopting halal logistics in most of food and beverage company in Malaysia. They need to earn profit and get more customer which with the halal food demand in halal market growing excessively, they need to shift to a better instrument of halal logistics in their company. Apart from that, Abdul et al. mentioned that other than being concern about their food intake, people also unlock the confidence and trust they have toward the transportation process of halal products they consume. Besides, aside from adjusting to Islamic teaching, the reason to select Halal items and administrations are since of wellbeing reasons (Ambali & Bakar, 2013).

Moreover, a few shoppers too regarded Halal item and supply are kind to the creature welfare. For occurrence, there are abattoirs in Spain hones Halal butchering in arrange to cater for requesting customers who are concern about creature welfare and pre-slaughter supply chain (Miranda-de la Lama, G. C., Villarroel, M., Liste, G., Escós, J., & María, G. A., 2010).

2.5.3 Vision to Change

The vision for change comes mostly from top-level management. If senior management has a vision to adapt their operations to meet halal logistics criteria, all personnel of the organization must study, comprehend, and be able to conduct all logistical operations in accordance with what JAKIM and SIRIM have agreed upon for a halal logistics operation system. However, organizational leaders must be conscious that vision should only point personnel to the most crucial aspects of a transformation (Tarmizi et al., 2013). Therefore, in order to fulfill the need of food and beverage industry to implement halal logistics the top management level of the company must play their role to shape and train other employee.

Company can provide policies and practices for their employee and train the leader of each department to learn how to implement halal logistics instrument into the firms based on government regulations for halal logistics industry in food and beverage companies (Tarmizi et al.,2013). Based on her study, company need to change their vision to a new one in order to

adopt halal logistics. This is one of the way food and beverage company in Malaysia can be ready and prepare adopting it.

2.6 Technological Factors

Nowadays, there are many studies and research that shown how technological factors help industry to implement halal logistics. With the implementation of Information and Communication Technology (ICT) in halal logistics and supply chain, it has created an attention in academic and business world whereas ICT does change a lot in logistical aspect. Concurring to Tierman, ICT have the plausibility to conduct Halal supply chains more effectively, way better organization of supply chains moreover increase the Halal execution at the goals. Tierman also addressed, the specialized and progressed logistics solution is when the LSPs creates and eventually controls the entire Halal calculated concept by cruel conducting organization with a specialized and progressed ICT to create the logistics, included the transportations handle, item taking care of and supply chain operations and controllable.

Apart from that, with the improvement or implementation of ICT in a certain company, the management need to learn how to handle the new technology in order for their employee to work with the new environment (Richey et al., 2008). However, technological readiness rate does not ensure a company mastering in technological advancement even though they are working with new technology. A corporation with a higher level of technological preparedness performs better in terms of logistics. The hypothesis is validated after data analysis. The research becomes the core framework of this research, in which the researcher investigates the impact of technological preparedness on halal logistic performance (Raziah Noor Razali, 2012).

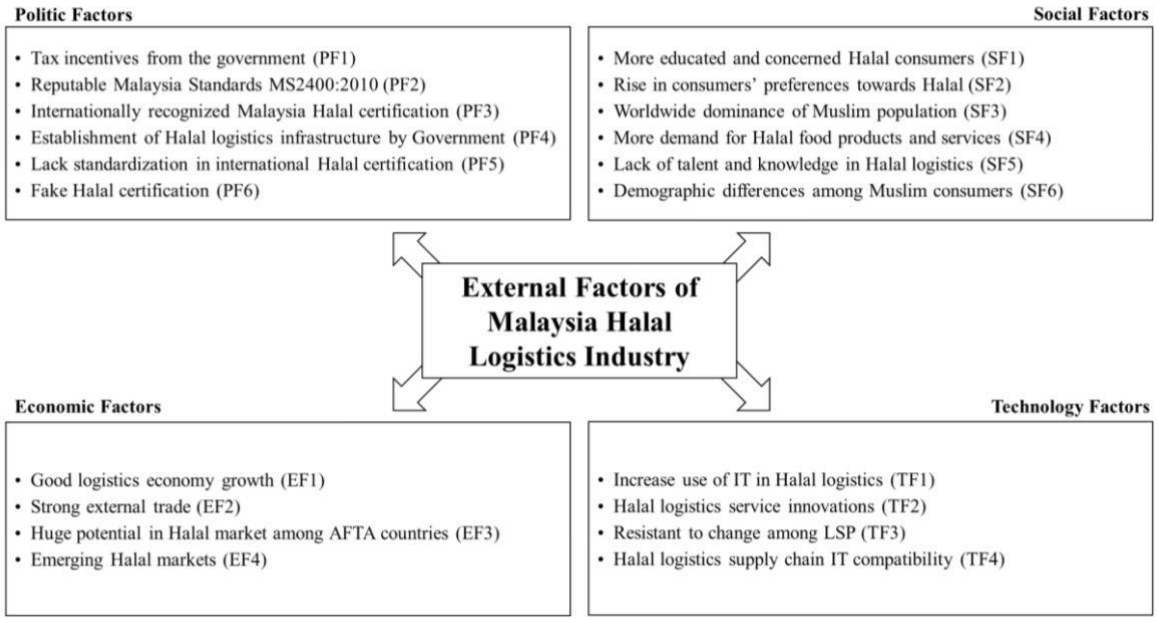

FIGURE 2.6: External Factors of Malaysia Halal Logistics Industry (Ab Talib, 2014)

2.6.1 Halal Assurance System (HAS)

Halal Assurance System (HAS) also one of the crucial key components that need to be look into by food and beverage company in halal logistics in order to smooth the way of the company in adopting HLs (Tarmizi et al., 2014). Halal Assurance System (HAS) gives common rules for all halal logistics operations on the company. Halal confirmation framework gives rules to guarantee the judgment of halal items along it supply chain. Affirmation framework in halal division is to form beyond any doubt each substance who include along the supply chain of halal items fulfill all the Halalan-Toyibban prerequisites for all angles such as administration framework, halal risk assessment, halal offices, gear and foundation. Therefore, to earn Halalan-Toyyiban goods, company need to follow Shariah Law which it is one of an important aspect in develop halal standard (Razali, 2008). According to Zailani, there is no way to ascertain whether a food product originated in the nation specified on its package. This discovery has opened potential for additional Halal LSPs to stimulate the development and acceptance of an ICT

solution for tracking reasons. The government's duties are critical in bringing order to the local Halal business and ensuring Halal purity (Zailani et al., 2017).

2.6.2 Robust ICT

According to Murphy, P.R. and Knemeyer, A.M (2014), robust ICT become one of the factor that affects halal logistics industry which it include the process of controlling ICTs. Other than that, robust ICT also very crucial as it helps to improves its efficiency and also performance in halal logistics. As we know that, robust ICT already been used in logistic industry and supply chain management so that it is very relevant for food and beverage company to adopt robust ICT in order to improve their company performance in halal logistics (Piplani, R.; Pokharel, S.; Tan, A., 2004). Piplani also stated that, robust ICT help to improve effectiveness and enhancing traceability for information system in a company. Therefore, it can be one of the technological factor that helps food and beverage company to be ready in order to adopt halal logistics in their company.

Within the Halal Logistics chain, strong ICTs will create effective Halal traceability systems. The utilize of ICT can increment straightforwardness and client believe. It can be utilized to follow possibly non-Halal fixings and approve that item are without a doubt Halal. The amount of shopper certainty within the Halal industry is for the most part connected to the sum of information that the shopper may get at the time of buy (Poniman, D.; Purchase, S.; Joanne, S., 2015). Hence, robust ICT are one of the technological factors that can influence readiness of food and beverage industry towards halal logistics.

2.7 Proposed Conceptual Framework

The proposed conceptual framework in this study is to illustrate the diagram of the constructs and variables and the interrelationship between variables. The independent variable

consists of politics, social and technological factors. The framework below shows the relationship between independent and dependent variables.

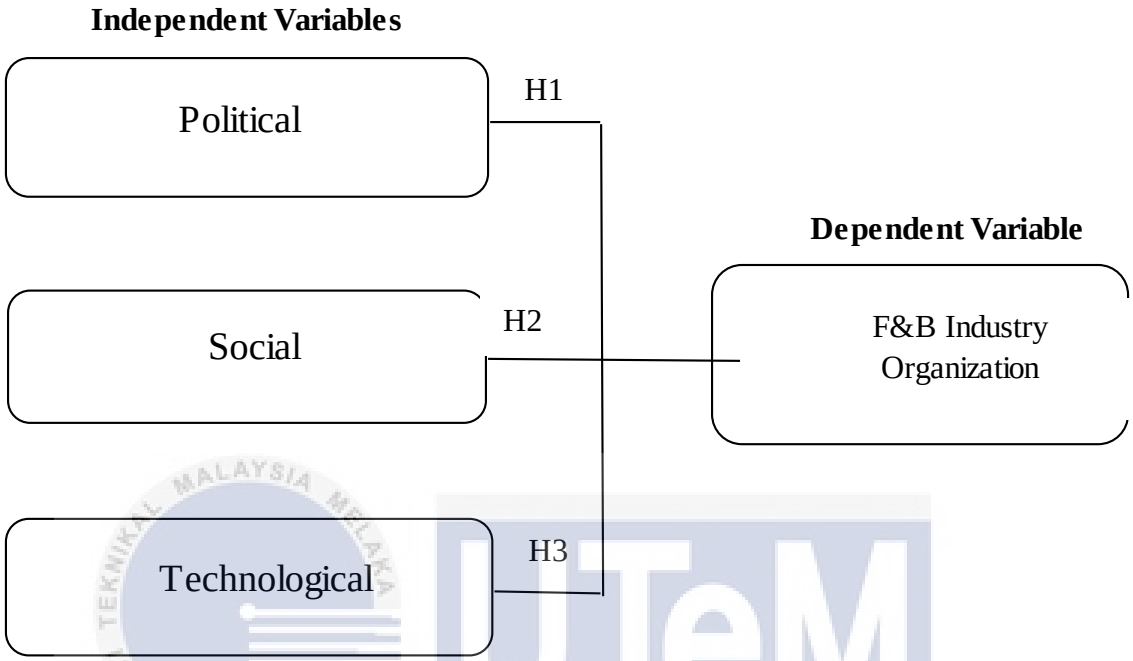

Figure 2.7: Proposed Conceptual Framework

The conceptual framework is about three factors that may affects the food and beverage industry organization in adopting halal logistics where Ab Talib (2020) study mentioned about the government roles in adopting halal logistics. In the framework, the political factors are divided into two which are regulation and infrastructure based on Ab Talib (2020) article. Meanwhile the social factors which H2 in the framework above are develop from Azhari (2017) and Ab Rahman (2009) which their study are about concern on halal and vision to change significantly. Azhari (2017) stated that most of Muslim people stated to be aware about their food product and become more knowledgeable about halal food products. Therefore, this become one of the social factors that leads to halal logistics adaption and affecting readiness of halal logistics. Meanwhile, Ab Rahman (2009) study about vision to change in food-based player's management. Therefore, vision to change developed as social factors in this study. In other hand, Karia (2019) and Haleem (2021) mentioned about Halal Assurance System (HAS) and robust ICT significantly. Based on their study, HAS and robust

ICT are one of the reasons that leads to readiness of food and beverage industry adopting halal logistics. Meanwhile, Ab Rahman stated in his study that all of the factors mentioned are affecting the readiness of food-based players in Malaysia therefore, the three factors in the conceptual framework are related to the food and industry organization.

2.8 Summary

This chapter provides an overview of the associated theories on the study issues. This chapter focuses on politics, social, and technology. A literature review is important in research because it serves as a reference for gaining insights and improved knowledge by evaluating prior papers investigated by previous researchers. The literature reviews explain the dependent and independent variables as well as the relationship between them.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

According to Kothari (2004), research methodology is a systematic and logical strategy for resolving research problems and studying the process of doing research. Research technique can direct researchers along the right road for answering research issues. More precisely, research methodology helps researcher to ensure the validity and reliability that connected with research aims and objectives.

In this chapter, the researcher outlines the research methods used and ways in solving research question which includes research design and research strategy. Apart from that, the methods used for collecting data on factors influencing readiness towards halal logistics among food and beverage industry in Johor will be explained. This chapter also includes pilot test, reliability which is related to questionnaire construction. Analysis used to test the hypothesis of the study also identified.

3.2 Hypothesis Development

Based on the conceptual framework proposed, the hypothesis that are developed for this research are shown as below.

Hypothesis 1:

H1: There is significant relationship between political factors and food and beverage industry readiness towards halal logistics.

H_0: There is no significant relationship between political factors and food and beverage industry readiness towards halal logistics.

Hypothesis 2:

H1: There is significant relationship between social factors and food and beverage industry readiness towards halal logistics.

H_0: There is no significant relationship between social factors and food and beverage industry readiness towards halal logistics.

Hypothesis 3:

H1: There is significant relationship between technological factors and food and beverage industry readiness towards halal logistics.

H_0: There is no significant relationship between political factors and food and beverage industry readiness towards halal logistics.

3.2.1 Political factors and food and beverage industry readiness towards halal logistics

Political factors between political factors and food and beverage industry towards halal logistics have been recorded by Ab Talib (2020). Ab Talib stated regulation and infrastructure are one of the factors in adopting halal logistics. Government plays an important in promoting halal logistics because government investment in the country could led to multiple positive impact especially in logistics factors (Ab Talib, 2021). Apart from country-specific studies, the involvement of government is seen in a variety of logistics fields. Kunz and Reiner (2012) find in a meta-analysis of humanitarian logistics research that 'government' is among the most often investigated components, demonstrating the relevance of government in the relief logistics area. Furthermore, Govindan and Bouzon (2018) highlight government-related motives of regulatory constraints, legitimacy obligation, and incentives as the widely explored implementation aspects in a recent study on reverse logistics. Therefore, the following theory is put forth:

H1: There is significant relationship between political factors and food and beverage industry readiness towards halal logistics.

3.2.2 Social Factors and food and beverage industry readiness towards halal logistics

The significant relationship between social factors and food and beverage industry readiness towards halal logistics is based on Azhari (2017) and Ab Rahman (2009) article. Azhari mention about concern on halal based on his article meanwhile Ab Rahman mentioned about vision to change on his article. It is taken from Ab Rahman article which title factors influencing readiness towards halal logistics in food-based players in Malaysia. Ab Rahman stated that top management has a vision to adapt their operations to meet halal logistics criteria; all personnel of the organization must study, comprehend, and be able to conduct all logistical operations in accordance with what JAKIM and SIRIM have agreed upon for a halal logistics operation system. In other hand, in Azhari study stated that concern on Halal affecting the demand for halal logistics certification. In this research, the concern on halal become one of the

factors that influence the readiness of food and beverage industry. Thus, the following theory is offered:

H2: There is no significant relationship between social factors and food and beverage industry readiness towards halal logistics.

3.2.3 Technological factors and food and beverage industry readiness towards halal logistics

Logistics service developments in the domain of Halal logistics and Halal transportations, as well as the enhancement of Halal services once they gained the benefit and satisfaction of ICT usage, have taken numerous elements into account (Karia, 2019). Oher than that, robust ICT has a significant impact on logistics and supply chain management. Taking use of and regulating ICTs is an important aspect of SCM (Haleem, 2021). Robust ICTs will establish effective Halal traceability systems in the Halal Logistics chain. The use of information and communication technology (ICT) may promote transparency and consumer confidence. It may be used to track down possible non-Halal ingredients and confirm that the result is Halal (Haleem, 2021). Therefore, food and beverage industry need to be aware on this technological factors that might influence their readiness in adopting halal logistics. As a result, the following theory is offer:

H3: There is significant relationship between technological factors and food and beverage industry readiness towards halal logistics.

3.3 Research Design

Research design refers to the overall approach you pick to combine the many components of the study in a cohesive and logical manner, assuring you will effectively solve the research topic; it serves as the blueprint for data collection, measurement, and analysis. The research design is the overall strategy for how the researcher will approach addressing the study questions. It is made up of specific objectives obtained from research questions. It also defines the sources from which the researcher intends to acquire data, as well as the method by which the researcher intends to collect and analyse the data. Following that, study design covers the ethical difficulties and limits that the researcher would unavoidably face, such as access to data, time, location, and money (Saunders, M., Lewis, P., & Thornhill, A., 2009).

The nature of the research endeavor might be exploratory, descriptive, explanatory, evaluative, or a combination of these. An exploratory research is used to get a better knowledge of a certain issue, problem, or occurrence. The goal of descriptive research is to provide an accurate profile of events, people, or circumstances. The research design in this study is explanatory research. Explanatory research is performed to obtain data on the factors influencing consumer credit card spending. For example, explanatory research questions such as "Why" or "How" might be used to elicit explanatory responses.

3.4 Methodological Choices

The methodological options for research include qualitative research, quantitative research, and mixed approaches. Qualitative research is used to observe and analyze real-life situations in order to develop theories to explain what happened (Newman & Benz, 1998). Quantitative research is used to construct a theory and test the hypothesis's confirmation or denial. The quantitative approach will be utilized to collect data from respondents in this study. The quantitative technique focuses on numerical data that may be generalized across a

population or used to define a phenomenon (Mujis, 2010). Statistical analysis is used to analyze the connection between variables using quantitative approaches.

3.5 Data Collection

Data collection known as a procedure of collecting, measuring and analyzing data research using standard validated techniques. Data collection is a methodical way of gathering information from primary and secondary sources in order to create a comprehensive picture of a topic of interest. The information and data for the study were acquired from both primary and secondary sources. Essential information are data assembled in a ponder for a particular investigate theme utilizing appropriate forms (Hox & Boeije, 2005). Essential information can be collected through surveys, interviews, and perception approaches. The essential information for the consider is procured through a study given to a Malaysian e-logistics trade. The data is accurate and has not been altered in any way. statistical analysis is used to investigate the connection between variables.

Furthermore, secondary data are data that has been obtained and is easily accessible from other sources. Secondary data can be used to identify problems, find appropriate solutions, and do more research for the project. Secondary data for this study are acquired from books, articles, and other sources scholarly publications, journal papers, academic articles, and websites pertinent to the study.

3.6 Questionnaire Development

In this study, the survey method with self-administered questionnaires is chosen for the process of sending questionnaires to the respondents. The questionnaire is divided into three sections. Section A was designed to capture demographic information such as gender, age, race and duration of working experience. Section B then asks questions about factor that influencing readiness towards halal logistics among food and beverage industry. Political factors like regulation and infrastructure, social factors such as concern on halal and vision to change and also technological factors like Halal Assurance System (HAS) and robust ICT are among the variables that will be stated in the questionnaire. The respondents were requested to react to the

questions using a Likert scale, which reflects the level of agreement of the respondents from 1 to 5. Section C of the questionnaire is regarding their company's organizational performance.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

FIGURE 3.6: Likert Scale

3.7 Sampling Technique

Sampling technique divided into two categories which are probability sampling and non-probability sampling. In each of this sampling, each sample has an equal chance of being chosen (Kumar, 2011). Non-probability sampling means that each sample does not has the equal chance to be selected. The aim of sampling technique is to select population to be sampling units in the survey.

In this research, probability sampling was chosen and simple probability sampling is the method to select random sample. this is the process of selecting sample size from the sampling population provided each sample has equal and independent chance to be selected. The target respondents of the survey are food and beverage company in Malaysia who practicing halal logistics. Food and beverage industry in Johor is approximately 764 company based on Halal Malaysia Official Portal. Therefore, the current study sample size is 260 respondents, according to Krejcie and Morgan (1970). Hence, 260 respondents are chosen as a source of data and evaluation to complete the questionnaire.

Table 3.7: Determining sample size of a known population

Source: Krejcie and Morgan (1970)

Population Size (N)	Sample Size (S)
100	80
200	132
300	169
400	196
500	217
600	234
700	248
800	260
900	269
1000	278
2000	322
3000	341
4000	351
5000	357
6000	361
7000	364
8000	367
9000	368
10 000	370
15 000	375
20 000	377
30 000	379
40 000	380
50 000	381
75 000	382
1 000 000	384

3.8 Location of Research

The primary location for the research is food and beverage company in Johor. According to Department of Statistics Malaysia (DSM), there are approximately 764 food and beverage company in Johor.

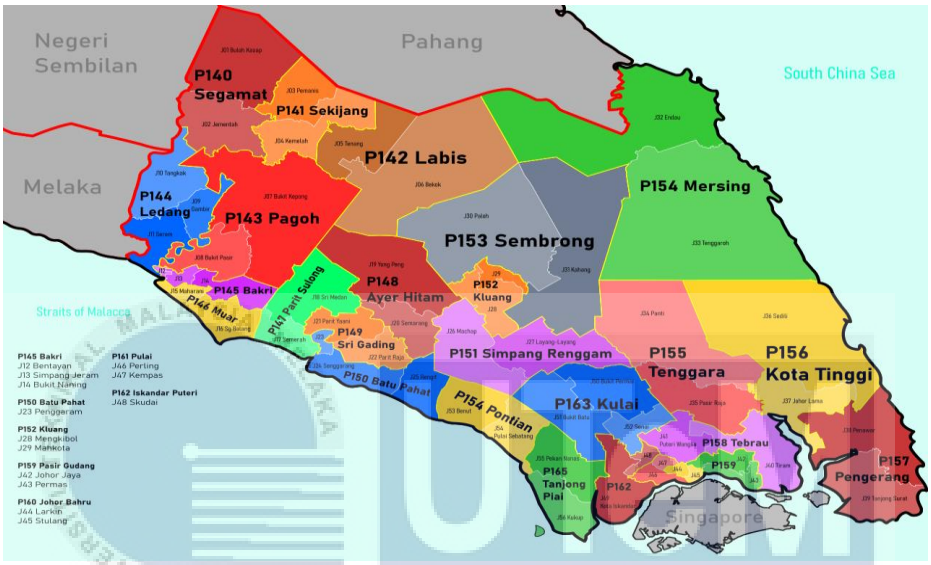

FIGURE 3.8: Map of Johor

Source: Google Image (2022)

3.9 Data Analysis

The systematic process of analyzing data using statistical or logical techniques is known as data analysis. Various data analysis methods, such as the pilot test, Cronbach's alpha, and descriptive statistics for respondents, are employed in this study to show and analyze the data acquired data on demographics. Following that, Pearson's correlation coefficient and multiple regression analysis are performed utilized for data analysis

3.9.1 Pilot Test

A pilot test is a preceding study used to assess the reliability and validity of the questions created by the researcher. The goal of the pilot test is to ensure that the questionnaire is feasible and that respondents can comprehend and answer the questions. Furthermore, the pilot test is utilized to determine if the researcher can acquire the desired data. The pilot test sample is 10% of the total sample size, 260 questionnaires to be delivered to potential responders. Respondents to the pilot test will provide feedback on the questionnaires' difficulty or applicability. Based on the findings of the pilot study, researchers may make changes to clarify any confusing items or correct any mistakes, allowing study participants to answer questions more successfully. As a result, researchers may obtain reliable information and contribute to the research.

3.9.2 Reliability and Validity

Reliability and Validity are used to judge the quality of research in the quantitative research in the social sciences (Saunders et al., 2016). The repetition and consistency of data are referred to as reliability. The suitability of the measurements utilized, the results on correctness of the analysis, and the generalizability of the conclusions are all examples of validity. Internal validity is established in a survey questionnaire by a group of questions that have been statistically linked to an analytical factor or result. External validity is concerned with whether a study's findings are generalizable to other relevant situations.

Cronbach's Alpha is used by the researcher to assess the dependability of the variables. The alpha coefficient has a range of 0 to 1. Cronbach's Alpha scores more than 0.7 are deemed acceptable, greater than 0.9 are considered good, and equal to or greater than 0.9 are considered exceptional. While, if the value of Cronbach's Alpha demonstrates less than 0.6 is considered poor and less than 0.5 is considered unacceptable. There is indicated something wrong on the data when the value comes to a negative number.

Table 3.9.2: Cronbach's Alpha Coefficient Range and Strength of Association

Sources: Saunders et al., (2016)

Cronbach's Alpha Coefficient Range	Strength of Association
$\alpha \geq 0.9$	Excellent
$0.9 > \alpha \geq 0.8$	Good
$0.8 > \alpha \geq 0.7$	Acceptable
$0.7 > \alpha \geq 0.6$	Questionable
$0.6 > \alpha \geq 0.5$	Poor
$0.5 > \alpha$	Unacceptable

3.9.3 Descriptive Statistics

The examination of data to properly explain variables is known as descriptive statistics. There are two types of variables: measures of tendency (mean, mode, and median) and measures of dispersion (range, standard deviation, variance). Large volumes of data are made more manageable with descriptive statistics. In this study, descriptive statistics are used to examine demographic data from respondents as well as independent variables such as political, social, and technical issues.

3.9.4 Pearson's Correlation Coefficient

Pearson's Correlation analysis will be chosen in this study to determine the strength of the linear relationships between the dependent and independent variables. Pearson's correlation coefficient ranges from -1 to +1, representing perfect negative and perfect positive correlations, respectively. Meanwhile, a score of 0 indicates that there is no connection link (Saunders et al., 2016). The value indicates a positive correlation between two variables, whereas the value indicates a negative correlation between two variables. The greater the variance in the data from the best fit line, the closer the coefficient value is to zero. A coefficient value of 0 denotes that no link exists between two variables.

Correlation Coefficient Value (*r*)	Direction and Strength of Correlation
-1	Perfectly negative
-0.8	Strongly negative
-0.5	Moderately negative
-0.2	Weakly negative
0	No association
0.2	Weakly positive
0.5	Moderately positive
0.8	Strongly positive
1	Perfectly positive

Figure 3.9.4: Value of the correlation coefficient

Sources: Saunders et al. (2016)

3.9.5 Multiple Regression Analysis

Multiple regression analysis is a statistical technique that allows researchers to evaluate the strength of the cause and effect connection between three independent variables and one dependent variable (Saunders et al., 2016). The strength of the association between one continuous dependent variable and two or more independent variables is explained by multiple regression analysis. The regression was investigated on three independent variables in this study, which included economic, social, and technical elements. The regression equation is created to demonstrate how the independent variables fit together and to investigate the proportional contribution of each predictor of total variance. The multiple regression equation is as follows:

Equation of MRA: $Y = a + bX1 + cX2$

Where:

Y = Dependent Variable (Consumer Behaviour)

a = Constant value or Intercept

b = Influence of X1 (IMC tools)

c = Influence of X2 (types of media)

X1, X2 = Independent variables

3.9.6 Statistical Package for Social Sciences (SPSS)

Statistical Package for Social Sciences (SPSS) is utilized to achieve the information investigation. It is commonly utilized by analysts for complex factual information examination. SPSS is program package to produce arranged report, charts and other complex measurable examination. SPSS is utilized because it can total profoundly complicated information operation and examination precisely.

3.9.6 Summary

Through this chapter, the researcher described the approaches used in gathering information and collecting data. Quantitative method is selected to perform the study. The data obtained in the study is from primary data and secondary data. As for the research strategy, survey is chosen, and a structured questionnaire is used to conduct the survey. In data analysis, there is pilot test, Cronbach's alpha, reliability analysis, descriptive statistics, Pearson's correlation coefficient, multiple regression analysis and SPSS used to accomplish research aim and interpret results of the study.

CHAPTER 4

DATA ANALYSIS AND RESULTS

4.1 Introduction

In Chapter 4, the results and findings of data analysis which conducted in the research project are presented. The data is collected from 27 respondents over two months' period. The data will be analyzed using Statistical Package for Social Science (SPSS) to get result of research objectives and to examine whether research hypothesis are valid. The results will be presented in charts and table forms.

In addition, this chapter also present the result of pilot test and the findings in the form descriptive statistics which includes respondents' demographic and their responses as per questions. Then, Pearson Correlation Coefficient analysis describe the degree of relationship between independent variables and dependent variable followed by regression analysis to test the hypothesis and chapter summary.

4.2 Pilot Test

The purpose of pilot study is to test the feasibility of the questionnaire whether respondents can understand the questions. In this study, the researcher selects 26 respondents which are 10% of total respondents. Cronbach's alpha is used to measure the consistency of data where the value not less than 0.7 represent that the questionnaire has consistent reliability.

4.2.1 Reliability

According to Tavakol and Dennick (2011), internal consistency should be checked before to using a questionnaire for research purposes. Internal consistency defines the extent to which each component in the test refers to the same concept, which is connected to the interdependence of components inside the test. Cronbach's Alpha values vary from 0 to 1. Internal consistency is greater when the coefficients of dependability are closer to 1.

There are total 27 items of questions are measured using Likert scale ranging from 1 to 5 where 1= strongly disagree, 2= disagree, 3= neutral, 4= agree and 5= strongly agree. The value of Cronbach's Alpha coefficient indicates the strength of association of each item in independent variable on dependent variable.

4.2.1.1 Political Factor

Table 4.2.1.1.1: Case Processing Summary of Economic Factor

Source: (Develop from Research)

		N	%
Cases	Valid	26	100.0
	Excluded[a]	0	.0
	Total	26	100.0

Table 4.2.1.1.2: Reliability Statistics of Economic Factor

Source: (Develop from Research)

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.804	.804	5

Table 4.2.1.1.2 illustrate Cronbach's Alpha for five questions for economic factors. The reliability statistics has value of 0.804 which is greater than 0.7. Hence, the questions for the independent variable is reliable and can be used for the actual questionnaire.

4.2.1.2 Social Factor

Table 4.2.1.2.1: Case Processing Summary of Social Factor

Source: (Develop from Research)

		N	%
Cases	Valid	26	100.0
	Excluded[a]	0	.0
	Total	26	100.0

Table 4.2.1.2.2: Reliability Statistics of Social Factor

Source: (Develop from Research)

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.676	.686	5

Table 4.2.1.1.2 illustrate Cronbach's Alpha for five question for social factors. The result of the reliability statistics possessed Cronbach's Alpha value is greater than 0.5 which is 0.676. this shown that the independent variable result is moderate but still reliable. It also can be used for the actual questionnaire.

4.2.1.3 Technological Factor

Table 4.2.1.3.2: Case Processing Summary of Technological Factor

Source: (Develop from Research)

		N	%
Cases	Valid	26	100.0
	Excluded[a]	0	.0
	Total	26	100.0

Table 4.2.1.3.2: Reliability Statistics of Technological Factor

Source: (Develop from Research)

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.726	.732	5

Table 4.2.1.3.2 demonstrate the outcome of Cronbach's Alpha for five questions in technological factor. The value of Cronbach's Alpha is 0.726 which is higher than 0.7. therefore, the questions construct can be used for actual questionnaire.

4.2.1.4 Food and Beverage Industry Organization

Table 4.2.1.4.1: Case Processing Summary of Food and Beverage Industry Organization

Source: (Develop from Research)

		N	%
Cases	Valid	26	100.0
	Excluded[a]	0	.0
	Total	26	100.0

Table 4.2.1.4.2: Reliability Statistics of Food and Beverage Industry Organization

Source: (Develop from research)

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.700	.699	5

Table 4.2.1.1.2 illustrate the Cronbach's Alpha value exactly 0.7 which is strong value for the dependent variable, food and beverage organization. Therefore, the result is meant for five questions constructed for dependent variable and can be used for the actual questionnaire.

4.2.1.5 Reliability Analysis

Table 4.2.1.5.1: Case Processing Summary

Source: (Develop from research)

		N	%
Cases	Valid	26	100.0
	Excluded[a]	0	.0
	Total	26	100.0

Table 4.2.1.5.2: Reliability Statistics

Source: (Develop from Resource)

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.889	.894	20

Table 4.2.1.5.2 demonstrate that the Cronbach's Alpha result for total number of independent variables and dependent variable. The overall value of Cronbach's alpha is 0.889 which higher than 0.7. It is considered as a good reliability. Therefore, the result of overall Cronbach's Alpha has a great reliability whereas this the overall question of independent variables, political, social and technological factor with total of fifteen question can be used for the actual questionnaire. This also include the dependent variable that have a good reliability with five question is also used in the actual questionnaire.

4.2.2 Validity

The degree of precision in measuring what is designed to measure is characterized as validity. A high validity value indicates that the study result is trustworthy. Exploratory Factor Analysis, according to Chan and Idris (2017), is used to find a structure of latent dimensions of variables in instrument objects. As a result, EFA is used to assess the questionnaire's validity.

4.2.2.1 Validity for Independent Variables

Table 4.2.2.1.1: Table for KMO and Bartlett's Test for Independent Variable

Source: (Develop from Research)

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.502
Bartlett's Test of Sphericity	Approx. Chi-Square	232.361
	df	105
	Sig.	<.001

From the table 4.1.2.1.1, the Kaiser- Meyer-Olkin (KMO) measure of sampling adequacy is moderate with 0.502 because the value is higher than 0.5 (Yong and Pearce, 2013). When the value is closer to 1, the more suitable the method to analyze the data and the factors are reliable to each other. Then, Bartlett's test of sphericity is significant $\chi 2$ (df =105) because p-value is less than 0.001. Hence, the items listed in independent variables have pattern relationships among the variables because the p-value is less than 0.001 with approximate Chi-Square value 232.361.

4.2.2.2 Validity for Dependent Variable

Table 4.2.2.2.1: Table for KMO and Bartlett's Test for Dependent Variable

Source: (Develop from Research)

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.635
Bartlett's Test of Sphericity	Approx. Chi-Square	23.012
	df	10
	Sig.	.011

From the table 4.2.2.2.1, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy is moderately strong, 0.635 because the value is higher than 0.5 (Yong & Pearce, 2013). When the value closer than 1, the more suitable the method to analyze the data whereas the factors are reliable to each other. Then, Barlett's test of sphericity is significant $\chi 2$ (df =10) because p-value is less than 0.01 hence the items listed in independent variables have pattern realtionships among the variables because the p-value is less than 0.01 with approximate Chi-Square value 23.012.

4.3 Respondent's Profile

4.3.1 Respondent's Gender

Table 4.3.1: Respondent's Gender

Source: (Develop from Research)

1. Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	165	63.5	63.5	63.5
	Female	95	36.5	36.5	100.0
	Total	260	100.0	100.0	

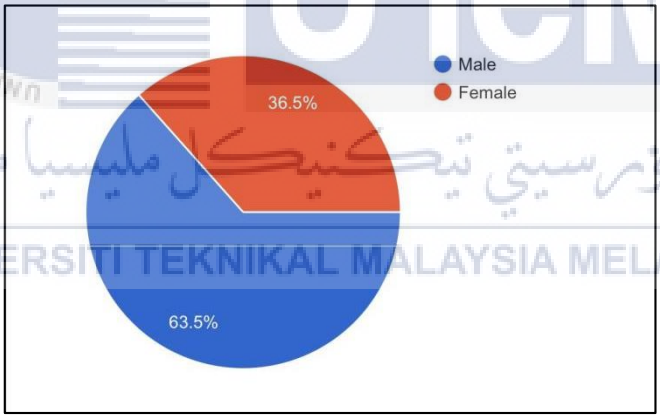

Figure 4.3.1: Respondent's Demographic of Gender

Source: (Develop from Research)

Table 4.3.1 above shows that the frequency and percentage of respondent's demographic of gender. There are total of 260 respondents and there are 165 of male respondents and 95 of female respondents among the total respondents collected. The percentage of male respondents are 63.5 meanwhile for female respondents are 36.5. as shown in figure 4.3.1.

4.3.2 Respondent's Age

2. Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20-29 years old	129	49.6	49.6	49.6
	30-39 years old	99	38.1	38.1	87.7
	40-49 years old	30	11.5	11.5	99.2
	50-59 years old	2	.8	.8	100.0
	Total	260	100.0	100.0	

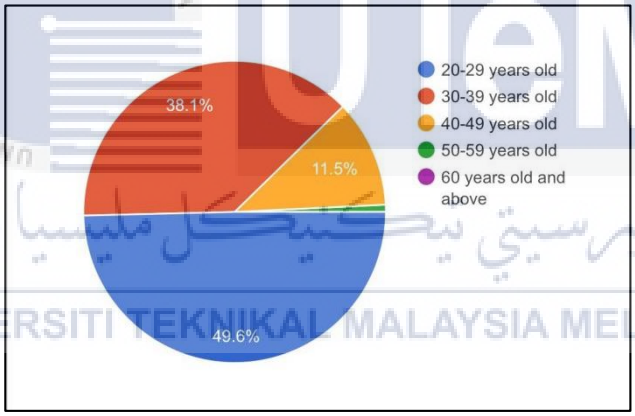

Figure 4.3.2: Respondent's Age Group

Source: (Develop from Research)

Table 4.3.2 illustrate that the data range on the age of respondents. Among 260 respondents, there are 129 respondents (49.6%) age 20-29 years' old. This is the highest are group percentage among the others. There are 99 respondents (38.1%) in between the age of 30-39 years old. Besides, the rage of 40-49 years old has 30 respondents (11.5%). There are 2 respondents (0.8%) who aged between 50-59 years old. Figure 4.3.2 shows the percentage of respondent's demographic of age group above.

4.3.3 Respondent's Race

Table 4.3.3: Respondent's Race

Source: Develop from Research)

3. Race

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Malay	249	95.8	95.8	95.8
	Chinese	5	1.9	1.9	97.7
	Indian	1	.4	.4	98.1
	Others	5	1.9	1.9	100.0
	Total	260	100.0	100.0	

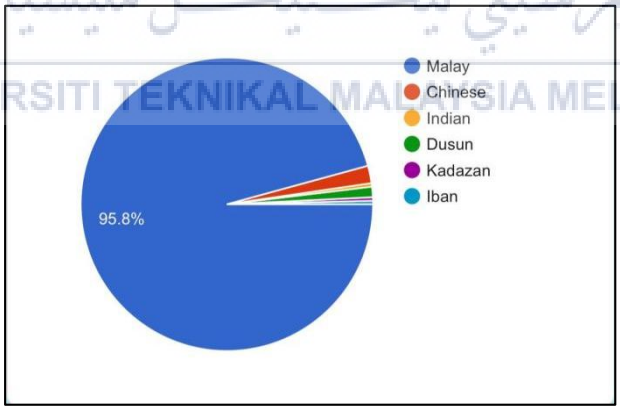

Figure 4.3.3: Respondent's Race

Source: (Develop from Reseacrh)

Table 4.3.3 shows the race group of respondents collected. Among the respondents, 249 respondents (95.8%) who are Malay which have the highest percentage among other race group meanwhile there are 5 respondents (1.9%) who are Chinese. Besides, respondent who are Indian

has the total of only 1 respondent (0.8%) and for others race group has the total of 5 respondents (1.9%). Figure 4.3.3 above illustrate the percentage of respondent's race group.

4.3.4 Respondent's Duration of Working Experience

Table 4.3.4: Respondent's Duration of Working Experience

Source: (Develop from Research)

4. Duration of Working Experience

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 1 year	13	5.0	5.0	5.0
	1-2 years	17	6.5	6.5	11.5
	3-5 years	156	60.0	60.0	71.5
	More than 5 years	74	28.5	28.5	100.0
	Total	260	100.0	100.0	

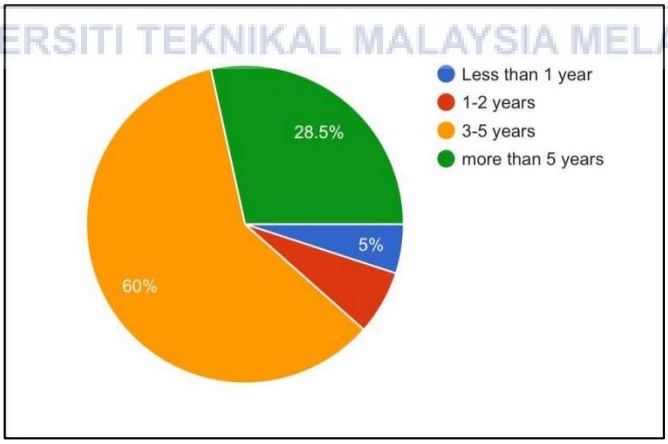

Figure 4.3.4: Respondent's Duration of Working Experience

Source: (Develop from Research)

Table 4.3.4 above shows the duration of working experience for 260 total respondents. There are 13 respondents (5%) with less than 1 year of working experience which is the least percentage than others. Besides, for 1-2 years working experience has total respondents of 17 respondents (6.5%) meanwhile for the duration of working experience of 3-5 years has the highest total of respondents, 156 respondents (60%). There are also 74 respondents (28.5%) for more than 5 years of working experience. All of the percentage are shown above in Figure 4.3.4.

4.4 Descriptive Analysis

4.4.1 Descriptive Analysis for Independent Variable (Political Factor)

Table 4.4.1: Summary of Political Factor

Source: (Develop from Research)

Item	Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
RI1	Rules constitutes by the government helps company to easily adopt Halal logistics	43 (16.5%)	203 (78.1%)	10 (3.8%)	2 (0.8%)	2 (0.8%)
RI2	Established Halal logistics standards effecting halal logistics operation	136 (52.3%)	110 (42.3%)	10 (3.8%)	3 (1.2%)	1 (0.4%)
RI3	A reliable physical and non-physical infrastructure helps to facilitate Halal logistics process	139 (53.5%)	110 (42.3%)	9 (3.5%)	1 (0.4%)	1 (0.4%)
RI4	Sustainable Halal logistics facility affecting the efficiency of Halal logistics operation	118 (45.4%)	132 (50.8%)	7 (2.7%)	2 (0.8%)	1 (0.4%)
RI5	Government must provide support for promotion of Halal industry	124 (47.7%)	131 (50.4%)	4 (1.5%)	0	1 (0.4%)

Table 4.4.1 shows response of 260 respondents on independent variable, political factors that influence the readiness of food and beverage organization based on each statement above. The item of RI1 stated that rules constitutes by the government helps company to easily adopt Halal logistics. From the table above, the result shown that there are 16.5% respondents strongly agree on that statement meanwhile 78.1% respondents agree on the statement with the highest percentage. 3.8% expressed neutral on the statement and 0.8% disagree and strongly disagree on the statement of RI1.

The item RI2 stated that the established Halal logistics standards effecting Halal logistics operation whereas based on this statement there are 52.3% respondents strongly agree with the statement. This shows the highest percentage among others. Besides, 42.3% respondents agree on the statement meanwhile there are 3.8% respondents that choose neutral and 1.2% respondents do not agree with the statement. There are low percentage of respondent that strongly disagree with the percentage of 0.4%.

Based on Table 4.4.1, the item of RI3 describe that a reliable physical and non-physical infrastructure helps to facilitate Halal logistics process. Based on the result obtained, majority of the respondent strongly agree with the statement with the highest percentage of 53.5%, there are 42.3% respondent that agree on RI3 statement. There are 3.5% of respondents claims that they are neutral and 0.4% respondents disagree and strongly disagree on the statement.

Next, item RI4 explain that the sustainable Halal logistics facility affecting the efficiency of Halal logistics operation. There are 45.4% of respondents strongly agree and 50.8% majority of respondents agree on the statement followed by 2.7% of respondents claim that they feel neutral about the statement. In addition, there are 0.8% and 0.4% of respondents disagree and strongly disagree respectively.

Lastly, the item RI5 shows that government must provide support for promotion of Halal industry. There are 47.7% respondent strongly agree on the statement meanwhile 50.4% of respondents agree on the statement of item RI5. Besides, 1.5% respondents are neutral and only 0.4% of respondents that strongly disagree on the statement.

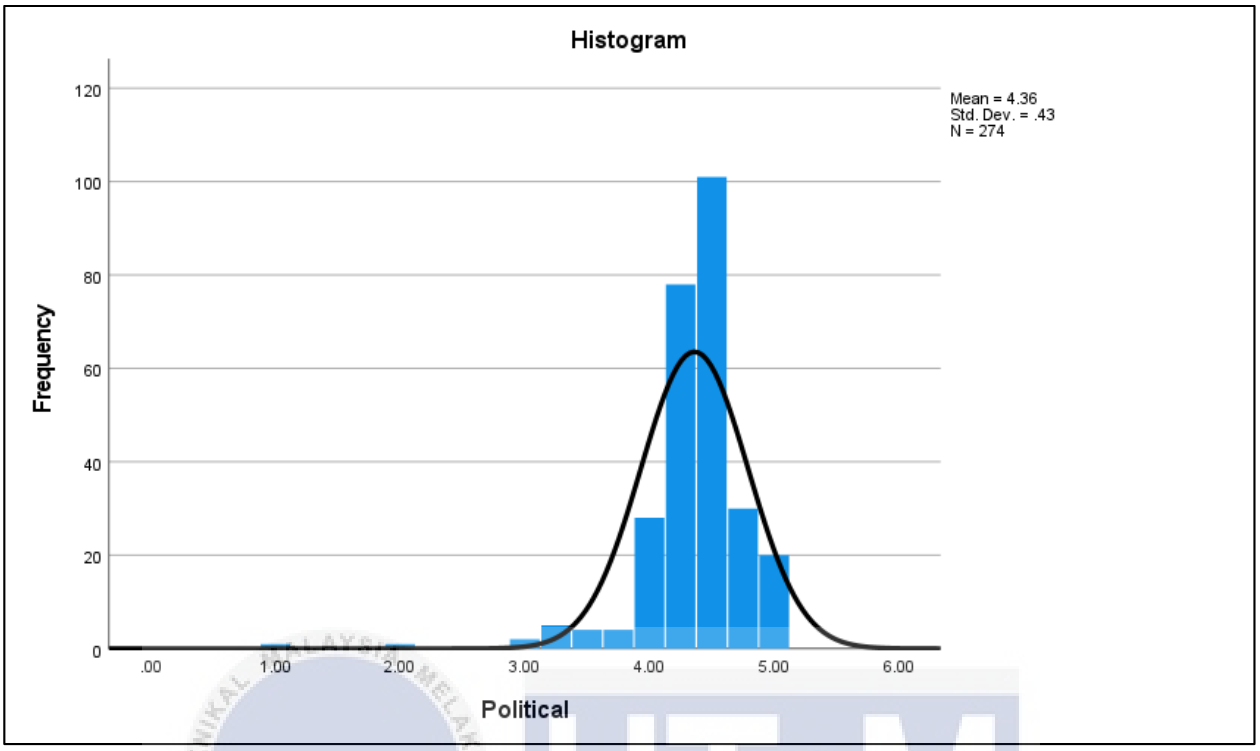

Figure 4.4.1: Independent Variable (Political Factors)

Source: (Develop from Research)

Figure 4.4.1 above shows that the shape of frequency distribution of political factor influencing readiness of food and beverage industry organization. The respondents have to rate based on self-consciousness on the Likert scale provided on the statement. Most of the respondent's rate strongly agree and agree for the political factor influencing readiness of food and beverage industry organization where the mean value is equal to 4.36 meanwhile the standard deviation is 0.43.

4.4.2 Descriptive Analysis for Independent Variable (Social Factor)

Table 4.4.2: Summary of Social Factor

Source: (Develop from Research)

Item	Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
CHVC1	Customers are confident that our product fulfills the hygiene, sanitation and food safety of Halal logistics standards	101 (38.8%)	150 (57.7%)	7 (2.7%)	1 (0.4%)	1 (0.4%)
CHVC2	Our consumers require our company to operate based on Halal requirements	123 (47.3%)	128 (49.2%)	8 (3.1%)	0	(0.4%)
CHVC3	Our company ready for new policies and practices of Halal logistics	128 (49.2%)	126 (48.5%)	5 (1.9%)	0	1 (0.4%)
CHVC4	All members in company will be given opportunity to deal with Halal logistics	106 (40.8%)	147 (56.5%)	6 (2.3%)	0	1 (0.4%)
CHVC5	All members in company are ready for new innovation in Halal logistics	115 (44.2%)	137 (52.7%)	7 (2.7)	0	1 (0.4%)

Table 4.4.2 displays the responses of 260 respondents to the independent variable, social considerations influencing the readiness of food and beverage organizations based on each of the statements above. According to CHVC1 customers are confident that our product fulfills the hygiene, sanitation and food safety of Halal logistics standards. According to the results in the table above, 38.8% of respondents strongly agree on the statement, whereas 57.7% agree on the statement with the highest amount. 2.7% were indifferent on the statement, whereas 0.4% disagreed or strongly disagreed with CHVC1.

The item CHVC2 stated that our consumers require our company to operate based on Halal requirements, and 47.3% of respondents strongly agree with this statement. Among the others, this has the greatest proportion. However, 3.1% of respondents feel neutral about CHVC2 and 1.8% strongly disagree with the statement CHVC2.

The third statement, CHVC3, asserts that our company ready for new policies and practices of Halal logistics. The statement is supported by 49.2% of respondents who strongly agree and 48.5% who agree. However, there are respondents who have neutral opinions: 1.9% are neutral and 2.9% strongly disagree with statement CHVC3.

Following that, item CHVC4 explains all members in company will be given opportunity to deal with Halal logistics. There are 40.8% of respondents who strongly agree, 56.5% of respondents who agree, and 2.3% of respondents who say they are neutral towards the statement. Furthermore, 0.4% of respondents strongly disagree.

Finally, item CHVC5 indicates that all members in company are ready for new innovation in Halal logistics. 44.2% of respondents strongly agree with the statement, whereas 52.7% agree with the statement of item CHVC5. Furthermore, there is only 0.4% strongly disagreeing with the statement.

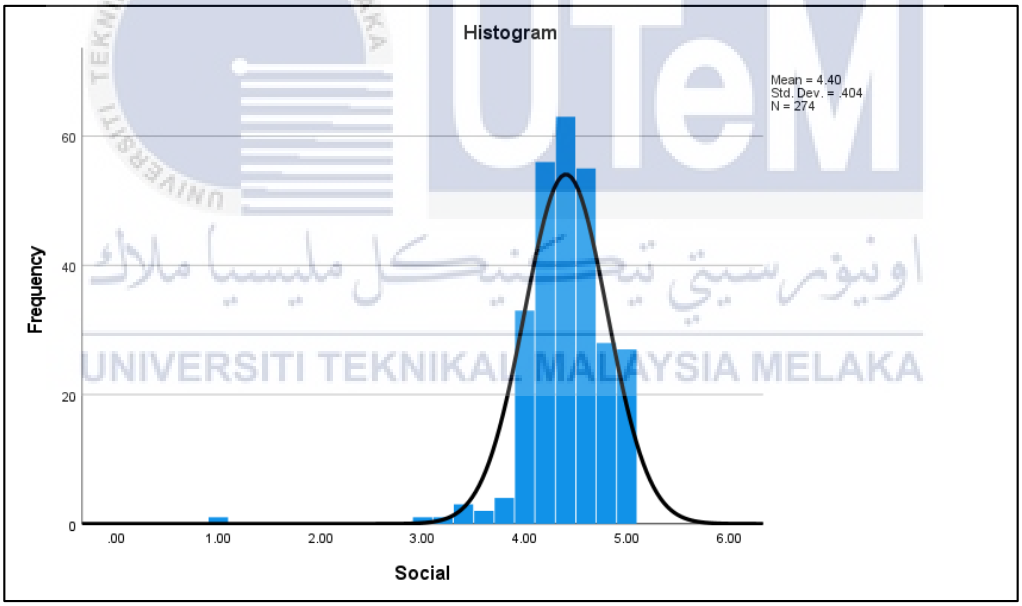

Figure 4.4.2: Independent Variable (Social Factors)

Source: (Develop from Research)

The frequency distribution of readiness of food and beverage industry organization is depicted in Figure 4.4.2. It illustrates the responses of respondents using a Likert Scale, where 1 means strongly disagree, 2 means disagree, 3 means neutral, 4 means agree, and 5 means strongly disagree, based on the respondents' self-conscious evaluation. The majority of

respondents think that social factors influence the readiness of food and beverage industry organization. The mean is 4.40, with a standard deviation of 0.404.

4.4.3 Descriptive Analysis for Independent Variable (Technological Factors)

Table 4.4.3: Summary of Technological Factor

Source: (Develop from Research)

Item	Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
HR1	Advanced information system help to ensure the Halal system	97 (37.3%)	153 (58.8%)	8 (3.1%)	1 (0.4%)	1 (0.4%)
HR2	HAS helps Halal logistics operation runs smoothly	123 (47.3%)	128 (49.2%)	8 (3.1%)	0	(0.4%)
HR3	The use of ICT increase customer trust in the company's Halal logistics	116 (44.6%)	126 (53.1%)	5 (1.9%)	0	1 (0.4%)
HR4	ICT helps to trace potentially non-halal ingredients in the product	132 (50.8%)	147 (46.2%)	6 (2.3%)	1 (0.4%)	1 (0.4%)
HR5	Robust ICT will develop efficient Halal systems	114 (43.8%)	137 (53.1%)	6 (2.3%)	1 (0.4%)	1 (0.4%)

Table 4.4.3 shows the result of technological factors influencing readiness of food and beverage industry organization. The item HR1 point out that advanced information system helps to ensure the Halal system. There are 37.3% of respondents that are strongly agree that the advanced information system helps to ensure the Halal system. Meanwhile, majority of 58.8% respondents vote for agree on the statement. Thus, there are 3.2% respondents that are neutral and 0.4% of respondents that are disagree and strongly disagree for the statement of HR1.

Clearly in the table above state that HAS helps Halal logistics operation runs smoothly in item of HR2. Therefore, the result of the research demonstrates that 47.3% of respondents strongly agree on the statement. There are also 49.2% of respondent that are agree on the statement of item HR2 with the highest percentage than others. Besides, there are 3.1% respondents that neutral and 0.4% respondents strongly disagree on the statement.

Next, item HR3 stated that the use of ICT increase customer trust in the company's Halal logistics. The result above shows that there are 44.6% respondents that strongly agree with the

statement, majority of respondent agree with percentage of 53.1%. Meanwhile, there are 1.9% respondents feel neutral about the statement and 0.4% of respondents strongly disagree.

For the item HR4, it stated above that ICT helps to trace potentially non-halal ingredients in the product. Most of the respondents with 50.8% strongly agree on the statement and 46.2% respondents agree. There are 2.3% respondents that were neutral meanwhile 0.4% of respondents disagree and strongly disagree on the statement above.

Item HR5 highlight that robust ICT will develop efficient Halal systems. There are, 3.8% respondents strongly agree that robust ICT help develop the efficiency of Halal systems meanwhile most of the respondent agree with the percentage of 53.1% on the statement. There is also 2.3% of respondent's neutral and 0.4% of respondents agree and strongly disagree on the statement.

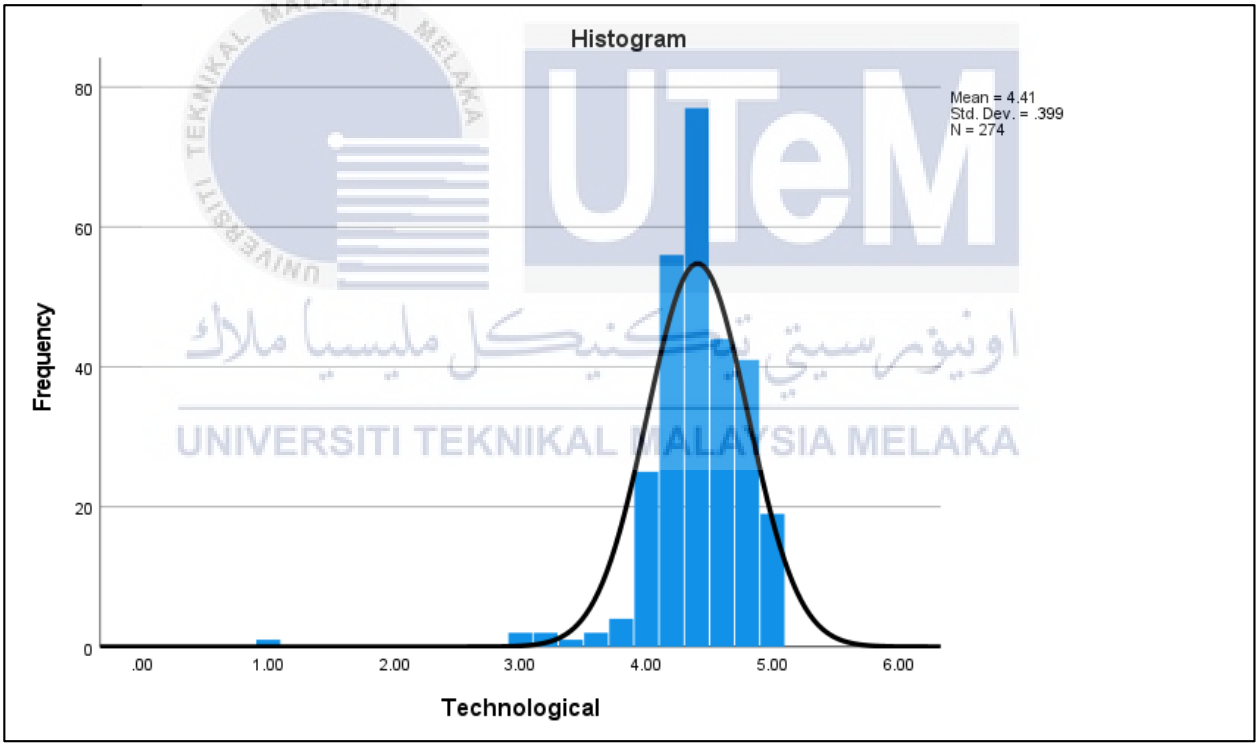

Figure 4.4.3: Independent Variable (Technological Factors)

Source: (Develop from Research)

Figure 4.4.3 above shows that the shape of frequency distribution of political factor influencing readiness of food and beverage industry organization. The respondents have to rate

based on self-consciousness on the Likert scale provided on the statement. Most of the respondent's rate strongly agree and agree for the political factor influencing readiness of food and beverage industry organization where the mean value is equal to 4.41 meanwhile the standard deviation is 0.399.

4.4.4 Descriptive Analysis for Dependent Variable (Food and Beverage Industry Organization)

Table 4.4.4: Summary of Food and Beverage Industry Organization

Source: (Develop from Research)

Item	Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
FIO1	Support from top management is essential in the process of halal logistics implementation	109 (41.9%)	143 (55.0%)	7 (2.7%)	0	1 (0.4%)
FIO2	Organizations need to develop capability to deal with halal logistics challenges	121 (46.5%)	130 (50.0%)	7 (2.7%)	1 (0.4%)	1 (0.4%)
FIO3	F&B industry are working together to ensure the 'halalness' of their products	124 (47.7%)	127 (48.8%)	8 (3.1%)	0	1 (0.4%)
FIO4	Halal food and beverage products demand is increasing every years	124 (47.7%)	126 (48.5%)	8 (3.1%)	1 (0.4%)	1 (0.4%)
FIO5	Enabling organizational culture helps the company to implement Halal logistics	114 (43.8%)	134 (51.5%)	11 (4.2%)	0	1 (0.4%)

Table 4.4.4 displays dependent variable food and beverage industry organization based on each of the statements above. According to FIO1, support from top management is essential in the process of halal logistics implementation. According to the results in the table above, 41.9% of respondents strongly agree on the statement, whereas 55.0% agree on the statement with the greatest proportion. 2.7% were neutral on the statement, whereas 0.4% strongly disagreed with FIO1.

The item FIO2 stated that organizations need to develop capability to deal with halal logistics challenges, and 46.5% of respondents strongly agree with this statement. Furthermore, 50.0% of respondents agree with the statement. Among the others, this has the greatest proportion while 2.7% pick neutral and 0.4% disagree with the assertion. The amount of respondents that strongly disagree with the percentage of 0.4% is minimal same as the percentage of disagree.

According to Table 4.4.4, the item of FIO3 describes F&B industry are working together to ensure the 'halalness' of their products. According to the results, there are 47.7% of respondents that strongly agree with the statement but the majority of respondents agree with the statement, with the greatest proportion of 48.8% agreed. There are 3.1% of respondents who claim to be neutral, and 0.4% strongly disagree with the statement.

Following that, item FIO4 states that Halal food and beverage products demand is increasing every year. The statement is supported by 47.7% of respondents who strongly agree and 48.5% who agree. 3.1% of respondents are neutral about the statement. Furthermore, 0.4% of respondents disagree that Halal food and beverage products demand is increasing, while also 0.4% strongly disagree on that statement.

Item FIO5 indicates that enabling organizational culture helps the company to implement Halal logistics. 43.8% of respondents strongly agree with the statement, and majority of 51.5% believe that enabling organizational does helps the company to implement Halal logistics. However, 4.2% of respondents are neutral on the statement and 0.4% strongly disagree.

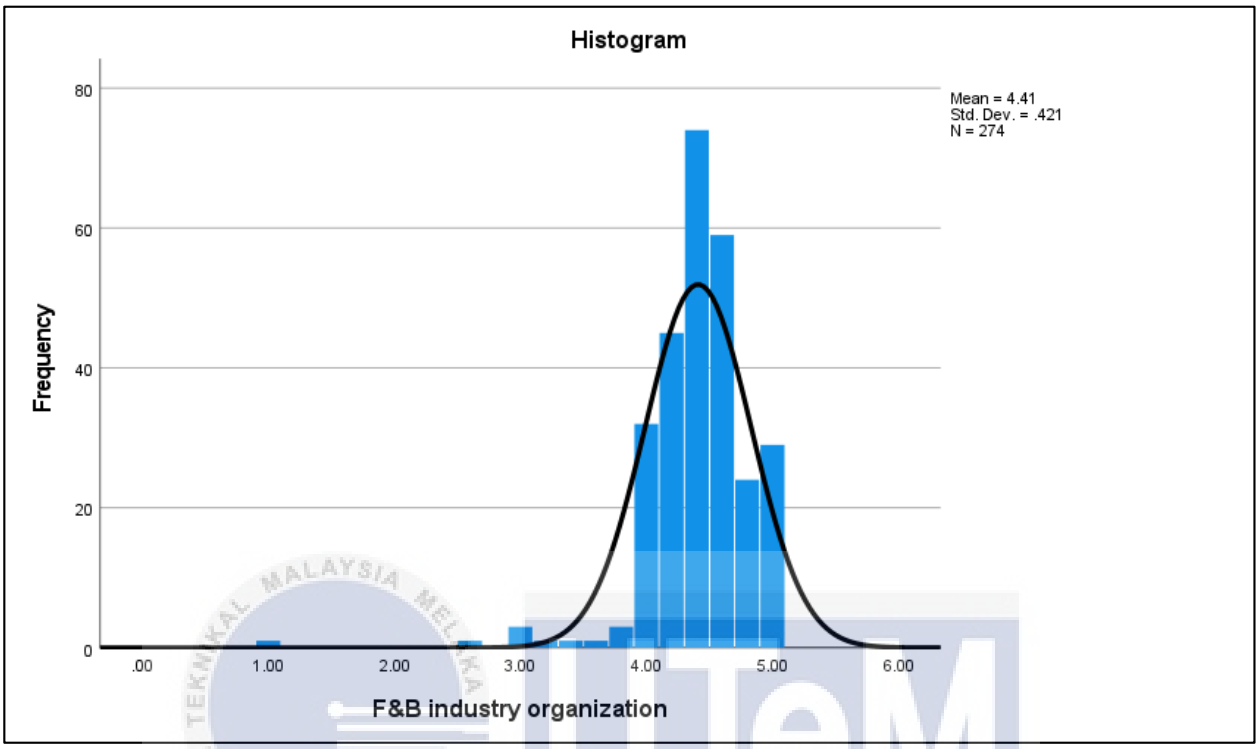

Figure 4.4.4: Dependent Variable (Food and Beverage Industry Organization)

Source: (Develop from Research)

The figure 4.4.4 shows shape of frequency distribution of food and beverage industry organization. The respondents have to rate based on self-consciousness on the Likert scale provided on the statement. Most of the respondents rated agree with statements in consumer spending by using credit cards where the mean value is equal to 4.41 while the standard deviation value is 0.421.

4.5 Descriptive Statistics

Table 4.5: Descriptive Statistics for Each Independent Variable

Source: (Develop from Research)

Descriptive Statistics

	Mean	Std. Deviation	N
Political	4.3548	.43808	260
Social	4.4023	.41047	260
Technological	4.4062	.40684	260

The table above shows the descriptive statistics of each independent variable (political, social and technological). Based on the table, all of the independent variables have almost similar value of mean. Political factor has the highest mean at 4.3548 subsequently followed by technological factors at 4.4062 and social factor has lowest mean at 4.4023. From the table obtained, it can be clearly seen that majority of the respondents rated agree on the questionnaire that the independent variables influence food and beverage industry organization.

In contrast, standard deviation specifies how the data spread from the mean. From the study, political factor has the highest standard deviation at 0.43808 followed by social factor at 0.41047 while the lowest standard deviation is technological factor at 0.40684. The standard deviation value indicate that the data are not deviate from the mean.

4.6 Pearson's Correlation Analysis

Table 4.6: Correlations of Independent Variables and Dependent Variable

Source: (Develop from Research)

Correlations

		Political	Social	Technological	F&B industry organization
Political	Pearson Correlation	1	.637**	.602**	.703**
	Sig. (2-tailed)		<.001	<.001	<.001
	N	260	260	260	260
Social	Pearson Correlation	.637**	1	.629**	.732**
	Sig. (2-tailed)	<.001		<.001	<.001
	N	260	260	260	260
Technological	Pearson Correlation	.602**	.629**	1	.695**
	Sig. (2-tailed)	<.001	<.001		<.001
	N	260	260	260	260
F&B industry organization	Pearson Correlation	.703**	.732**	.695**	1
	Sig. (2-tailed)	<.001	<.001	<.001	
	N	260	260	260	260

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

Table 4.6 illustrate the relationship between political, social and technological factors with food and beverage

Pearson's Correlation Analysis assesses the strength of the linear relationship that exists between the independent and dependent variables. Pearson's Correlation Coefficient has a value

between +1 and -1. Positive values indicate positive correlation between variables, whereas negative values indicate negative correlation between variables. A coefficient value of 0 indicates that there is no relationship between the variables. Pearson's Correlation Coefficient is represented by the symbol r.

Significant correlations varied from 0.695 to 0.732 in the table. The technical component has the highest coefficient value of 0.732 among the three independent variables. The number reflects a significant positive relationship between technology factors and consumer expenditure. The p-values for all variables are less than 0.01 at the two-tailed test, indicating that there is a statistically significant link.

Next, social factor has the second highest correlation coefficient value, r at 0.732. It indicates that social factor has strong positive correlation with food and beverage industry organization. Furthermore, the r-value of technological factor is 0.695 which clearly shows strong moderate positive relationship between economic factor and consumer spending.

Therefore, there is significant relationship between independent variables which consist of political factor, social factor and technological factor and dependent variable which is the food and beverage industry organization. Thus, the researcher conducts further analysis on the independent variables with multiple linear regression analysis.

4.7 Simple Linear Regression Analysis

The researcher decided to use linear regression analysis to determine the influence of each independent variable on dependent variable. Through linear regression analysis, the hypothesis testing result will be obtained to test the relationship between independent variables and dependent variable.

4.7.1 Simple Linear Regression for Political Factor

Table 4.7.1.1: Model Summary of Political Factor

Source: (Develop from Research)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.703	0.494	0.492	0.30458

a. Predictors: (Constant, Political

The summary of political factors from the linear regression model is shown in table 4.7.1.1. R reflects the relationship between political factors and food and beverage industry organization. According to the table, the R-value is 0.703, indicating a good connection between political factors and food and beverage organization. The square of R-value indicates the amount of variation in the dependent variable that can be clarified by the independent variables. The R-square score in the table is 0.494, indicating that political explains 49.4% of the variation in food and beverage industry organization.

Table 4.7.1.2: ANOVA of Political Factor

Source: (Develop from Research)

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	23.323	1	23.323	251.402	<.001[b]
	Residual	23.935	258	.093		
	Total	47.258	259			

a. Dependent Variable: F&B industry organization

b. Predictors: (Constant), Political

Analysis of Variance (ANOVA) is used to evaluate hypotheses and determine how well the model fits the data. The p-value is <0.001, which is Beta less than 0.05, indicating that political

factors adequately justified food and beverage industry organization. As a result, when alpha = 0.05, the alternative hypothesis is accepted.

Table 4.7.1.3: Coefficients of Political Factor

Source: (Develop from Research)

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.426	.189		7.543	<.001
	Political	.685	.043	.703	15.856	<.001

a. Dependent Variable: F&B Industry Organization

Beta values from the table are used to forecast the dependent variable from the independent variable. The political factor coefficient has a substantial association with food and beverage industry organization. The result reveals that p-value is <0.001 while Beta is 0.703, indicating that political factors do influence readiness food and beverage organization. As a result, the alternative hypothesis (H1) is accepted and the null hypothesis (H0) is rejected.

4.7.2 Simple Linear Regression for Social Factor

Table 4.7.2.1: Model Summary of Social Factor

Source: (Develop from Research)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.732	0.536	0.534	0.29166

a. Predictors: (Constant), Social

According to the table, the value of R is 0.732, indicating a substantial link between social factors and food and beverage industry organization. The coefficient determination, R square, has a value of 0.536, indicating that social factors explain 53.6% of the variation in consumer expenditure.

Table 4.7.2.2: ANOVA of Social Factor

Source: (Develop from Research)

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	25.311	1	25.311	297.544	<.001[b]
	Residual	21.947	258	.085		
	Total	47.258	259			

a. Dependent Variable: F&B industry organization

b. Predictors: (Constant), Social

The table 4.7.2.2, the p-value is equal to <0.001 is less than 0.05 represents there is significant relationship between social factor and food and beverage industry organization. Therefore, alternative hypothesis (H2) is accepted at alpha equal to 0.05.

Table 4.7.2.3: Coefficient of Social Factor

Source: (Develop from Research)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.057	.195		5.412	<.001
	Social	.762	.044	.732	17.249	<.001

a. Dependent Variable: F&B industry organization

The coefficient of independent variable in table 4.7.2.3 has a significant link with food and beverage industry organization toward social variables since the p value is less than 0.05. The data reveals that p-value is <0.001 while Beta is 0.732, indicating that social factors do influence food and beverage industry organization. As a result, the alternative hypothesis (H2) is accepted and the null hypothesis (H0) is rejected.

4.7.3 Simple Linear Regression for Technological Factor

Table 4.7.3.1: Model Summary of Technological Factor

Source: (Develop from Research)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.695	0.482	0.480	0.30788

a. Predictors: (Constant), Technological

Based on the table above, the R-value is at 0.695 which indicate strong relationship between technological factor and food and beverage industry organization. The coefficient determinant, R square valued at 0.482. There are 48.2% of variation in technological factor that influence food and beverage industry organization.

Table 4.7.3.2: ANOVA of Technological Factor

Source: (Develop from Research)

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	22.802	1	22.802	240.548	<.001[b]
	Residual	24.456	258	.095		
	Total	47.258	259			

a. Dependent Variable: F&B industry organization

b. Predictors: (Constant), Technological

From the table 4.7.3.2, ANOVA shows that technological factor is significant as the p value is <0.001 (less than 0.05). It represents that there is significance relationship between technological factor and food and beverage industry organization. Therefore, alternative hypothesis (H3) is accepted at alpha equal to 0.05.

Table 4.7.3.3: Coefficient of Technological Factor

Source: (Develop from Research)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.196	.208		5.747	<.001

Technological	.729	.047	.695	15.510	<.001

a. Dependent Variable: F&B industry organization

By referring to the table 4.7.3.3, the coefficient of independent variable indicates that there is significant relationship between technological factor and F&B industry organization due to the p-value is less than 0.05. The result shows that β value at 0.695 which represents that technological factor does affect food and beverage industry organization. Thus, the null hypothesis (H0) has been rejected while alternative hypothesis (H3) is accepted.

4.8 Multiple Linear Regression

Table 4.8.1: Model Summary of Multiple Linear Regression

Source: (Develop from Research)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.821	0.674	0.670	0.24534

a. Predictors: (Constant), Political, Social, Technological

b. Dependent Variable: F&B industry organization

The model summary from multiple linear regression analysis is shown in table 4.8.1. The findings reveal that R is 0.821, indicating that the three independent variables are highly connected. The coefficient of determination, R square, is 0.674, indicating that the independent variables can explain 67.4% of total variance in food and beverage industry organization (political, social, technological). R Square is more than 0.01, which is regarded a positive number since there is less variation in the regression model's independent variables, which are food and beverage industry organizations. As a result, there are additional key factors impacting food and beverage industry organizations that were not included for this study.

Table 4.8.2: ANOVA of Multiple Linear Regression

Source: (Develop from Research)

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	31.848	3	10.616	176.365	<.001[b]
	Residual	15.410	256	.060		
	Total	47.258	259			

a. Dependent Variable: F&B industry organization

b. Predictors: (Constant), Technological, Political, Social

Based on the table, the significance value, p-value is <0.001 which is less than the alpha value, 0.05 is statistically significant. The F-value is 176.365 is significant because when the F-value is higher, alternative hypotheses are well fit in the model and accepted.

Table 4.8.3: Coefficients of Multiple Linear Regression

Source: (Develop from Research)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.156	.186		.837	.403
	Political	.293	.048	.300	6.102	<.001
	Social	.374	.053	.360	7.119	<.001
	Technological	.302	.051	.288	5.911	<.001

a. Dependent Variable: F&B industry organization

According to the table, each independent variable in the research has contribution in influencing food and beverage industry organization. The social factor is the strongest predictor variable where $\beta = 0.374$, $t(260) = 7.119$, $p < 0.05$. The unstandardized beta, β also has the highest value compared to other independent variables. It can be clearly seen that social factor has the highest influence of positive relationship with food and beverage industry organization.

Following that, the political component is a better variable, with = 0.293, $t(260) = 6.102$, $p<0.05$. Political unstandardized Beta is the least positive of the factors. As a result, the political component has the lowest positive value of all independent variables and is the third factor impacting food and beverage industry organization.

The lower variable is thus technological factor, where = 0.302, $t(260) = 5.911$, $p <0.05$. The technological unstandardized beta is the least positive of the factors. As a consequence, the third factor impacting food and beverage industry organization is technological factor, which has the lowest positive value of all independent variables. According to the findings, each independent variable contributes differently to the dependent variable and provides considerable prediction to the food and beverage industry organization. The multiple regression equation can be used to identify the connection between the dependent and independent variables.

Equation: $Y = a + bX1 + cX2 + dX3$

$Y = 0.156 + 0.293X1 + 0.374X2 + 0.302X3$

Table 4.8.4: Equation of Multiple Regression Analysis

Source: (Saunders et al., 2016)

Where;

Y	Dependent variable (Food and Beverage Industry Organization)
a	Constant or other influence
b	Influence of X_1 (Political)
c	Influence of X_2 (Social)
d	Influence of X_3 (Technological)
X_1, X_2, X_3	Independent variables

From the multiple regression equation, there is positive relationship between all independent variables and dependent variable. The regression equation formed to predict the value of food and beverage industry organization for new case, multiply independent variables score and add values to the constant. For every increase in unit in independent variable, the researcher expects value increase in dependent variable holding all the variables in constant. Social factor is the strongest variable from the result obtained as $\beta = 0.374$, $t\ (260) = 7.119$, $p<0.05$. Hence, the most significant factor influencing readiness of food and beverage industry organization is social factor.

In a nutshell, the regression equation is:

Food and Beverage Industry Organization = 0.156 + 0.293 (Political) + 0.374 (Social) + 0.302 (Technological). Therefore, the regression equation is established to show how the variables are associated to each other.

4.9 Hypothesis Testing

By evaluating samples from the population, hypothesis testing allows researchers to draw conclusions about the population (Applegate et al., 2003). The hypothesis is chosen between alternative hypothesis and null hypothesis.

Where:

H_0 is null hypothesis

H_1 is alternative hypothesis

The null hypothesis will be rejected if the significance value is less than 0.01, and the alternative hypothesis will be accepted. If this is the case, the researcher might infer that the independent and dependent variables are not homogeneous.

4.9.1 Hypothesis Testing 1

H_1: There is significant relationship between political factors and food and beverage readiness towards halal logistics.

H_0: There is no significant relationship between political factors and food and beverage readiness towards halal logistics.

The significance value in table 4.7.1.2 is less than 0.05, indicating that the alternative hypothesis, H1, is accepted and the null hypothesis, H0, is rejected. As a result, there is a considerable link between political factors and the organization of the industry of food and beverages. The findings are consistent with prior study, which revealed that political issues have a major impact on food and beverage industry organization. From Abu Talib (2016), regulatory efforts are increasingly focused on halal commodities, particularly food products and he also argue that the government regulatory is required in promoting halal logistics for food and beverage industry. Furthermore, the role of government in political sector needs to be more assertive in promoting halal logistics in the industry (Ngah et al. 2015). In addition, Haleem and

Khan (2017) stated that the support from government helps to protect consumer from unsafe food followed by the halal food guideline and laws. Hence, the studies show that political factors have effect food and beverage industry organization in halal logistics.

4.9.2 Hypothesis Testing 2

H_1: There is significant relationship between social factors and food and beverage readiness towards halal logistics.

H_0: There is no significant relationship between social factors and food and beverage readiness towards halal logistics.

Based on the table 4.7.2.3, the significance value is less than 0.05 which indicate the alternative hypothesis, H2 is accepted and null hypothesis, H_0 is rejected. Therefore, there I significant relationship between social factors and food and beverage readiness towards halal logistics. The result is parallel with the previous studies. According to Tarmizi et al (2014), policies and procedures will aid and assist all management and technical levels in the proper implementation of halal logistics. A new leadership vision should be considered in order to prepare for the transition to halal logistics. Adoption of the HL system requires organizational support, as well as sufficient preparedness for the entire system to handle failure, issues, and dangers. To acquire the support of lower-level management (Halal), upper management must explain and provide a complete training program (Haleem et al,2021). The studies highlight that social factors have effect on food and beverage industry towards readiness of halal logistics.

4.9.3 Hypothesis Testing 3

H_1: There is significant relationship between technological factors and food and beverage readiness towards halal logistics.

H_0: There is no significant relationship between political factors and food and beverage readiness towards halal logistics.

Based on the result in table 4.7.3.3, the significance value is less than 0.01 which indicate the alternative hypothesis, H1, is accepted and the null hypothesis, H0, is rejected. As a result, there is a considerable link between technological factors and the organization of the industry of food and beverages. Integrating powerful technological component with Halal logistics increases efficiency and effectiveness while improving traceability by giving precise information about resource utilization (Haleem et al, 2021). Many academics believe that ICT has the potential to improve Halal services in logistical tasks. According to Marco Tierman (2009), ICT allows for more effective Halal supply chain management. Better supply chain organization also improves Halal performance at destinations. (Razali R.N, 2021). From all previous studies, technological factor influences readiness of food and beverage industry organization towards halal logistics.

4.9. Hypothesis Testing Result

Table 4.9.4: Hypothesis Testing Result

Source: (Developed for Research)

Independent Variables	P Value	Result
Economic	<0.001	Accepted H1
Social	<0.001	Accepted H2
Technological	<0.001	Accepted H3

From table 4.9.4 above, the hypothesis result demonstrates that there are significant relationships between all of the independent variables with the dependent variable. The result shows that all the significant value is below 0.05 where $p<0.001$. Hence, null hypothesis (H_0) of each independent variable is rejected while the alternative hypothesis of each independent variable is accepted.

4.10 Summary

As summary, this chapter discussed data analysis and result of the research. SPSS Version 25.0 was used to obtain data and result from 260 respondents to study the critical factors

influencing food and beverage industry organization. There are several different statistical tools used for the data analysis.

In pilot test, reliability analysis was conducted to test internal consistency of the questionnaire with Cronbach's Alpha. For respondents' profile, the data and variables projected in pie charts, tabulated in table and shown in the figures. With linear regression analysis, researcher determined that all of the alternative hypotheses are accepted while null hypotheses rejected as there are significant relationship between the independent variables (political, social and technological factors) with consumer spending by using credit cards. Meanwhile, Pearson's Correlation Coefficient analysis shows that there is strong positive relationship between independent variables and dependent variable in the research. Hence, multiple regression analysis conclude that social factor is the most significant factor influencing food and beverage industry organization.

CHAPTER 5

CONCLUSION AND RECOMMENDATION

5.1 Introduction

The researcher will address the overall debate regarding the findings of this investigation in this chapter. Based on the study goals, a summary of the findings, a review of the literature, a conclusion, and suggestions are developed. The recommendations are based on research findings and are intended for further study. The findings and results of this study can be used by other academics in the future to investigate halal logistics in the food and beverage industry.

5.2 Summary of Findings

In the previous chapter, the study had accomplished the research objectives of identifying factors influencing food and beverage industry readiness for halal logistics, studying the relationship between political, social, and technological factors with food and beverage industry organization, and examining the most significant factor influencing food and beverage industry organization.

5.2.1 Research Objective 1

RO 1: To identify the factors influencing readiness of F&B industry toward *halal* logistics

The first objective of this study is to identify the factors influencing readiness of food and beverage industry toward Halal logistics. In previous chapter, the researcher had suggested three critical factors influencing readiness of food and beverage industry toward Halal logistics. The first objective had been achieved through Literature Review in Chapter 2. The critical factors had been proved by previous researchers. Hence, the researcher comes out with independent variables (political, social and technological factors) influencing readiness of food and beverage industry in Halal logistics.

Based on Sham et al. (2017) because not only Muslims eat and enjoy Halal food items, the implementation, enforcement, and integrity of the halal supply chain are critical to the success of halal logistics. JAKIM's role is critical at every point of departure for commodities distribution. (Sham et al.,2017). The supply chain is favorably connected to organizational capabilities. Halal logistics techniques were discovered to operate as a bridge between organizational capabilities and organizational management performance (Abd Rahman et al, 2021). There are Halal logistic brand through advancement in Halal traceability that helps in implementing Halal logistics (Fernando et al., 2022). Based on Tarmizi et al. (2014), the social factor of vision to change and concern on Halal on Halal has been proved with 0.957 of Cronbach alpha. Therefore, the researcher chose the social factor of vision to change and concern on Halal for this research paper based on the research of Tarmizi et al. (2014). Meanwhile, for the political factor of regulation and infrastructure, it has been proved by Ab Talib et al. (2020) with his research paper about the role of government in promoting Halal logistics. Ab Talib mentioned about the factor of government regulation and provided infrastructure has become one of the important factor Halal logistics and last but not least for the technological factor, it has been proved by both Tarmizi et al. (2014) and Haleem et al. (2021) where the researcher stated about both Halal Assurance System (HAS) and Robust ICT. This factor has influencing the readiness of Halal Logistics towards Food and beverage industry in Johor. Hence, these three independent variables studied by the researcher do play vital roles in influencing Halal logistics implementation among food and beverage industry but there are also other significant factors that also play important roles in Halal logistics.

5.2.2 Research Objective 2

RO 2: To analysis the relationship between factor influencing the readiness of F&B toward halal logistics

The second study goal may be accomplished using the Statistical Package for Social Sciences (SPSS) software's Pearson's Correlation Coefficient Analysis. The findings show that all of the independent variables, which are political, social, and technological aspects, are positively related to the dependent variable, which is readiness of food and beverage industry toward Halal logistics. Furthermore, the study findings demonstrate that all of the independent factors have a substantial link and are positively connected with readiness of food and beverage industry toward Halal logistics. According to table 4.5, the independent variables (political, social, and technological factors) show a moderately strong to strongly positive connection with food and beverage industry organization, with values ranging from 0.695 to 0.746 and 0.732. The social factor has the strongest correlation, followed by the political factor.

According to Othman et al. (2006), compliance with Halal requirements is no longer viewed as a threat, but rather as a business opportunity and source of competitive advantages (Zailani et al. 2011), but the majority of Halal manufacturers are still hesitant to incorporate halal warehouses into their business operations. Besides, the government should be able to prepare the necessary steps to encourage food and beverage industry to use halal logistics services while also ensuring the integrity of our halal product is preserved and managed (Husny, Z. J., Hussien, M. Z. S. B. M., & Tan, M. I. I., 2017). In term of food and beverage industry organization, Firms must supply a sufficient facility regarding the vision that has been created on achievement and fulfil the demand of halal logistics in order to have the vision. This will improve income and seamlessly grow manufacturing (Tarmizi et al.,2014).

Hence, with Pearson Correlation Analysis result whereas political factor with the value of 0.703. It shown that the government role in regulation and infrastructure has strongly positive relationship with the dependent variable, readiness of food and beverage industry organization. As Ab Talib stated that the role of government is indeed important in promoting Halal Logistics. Other than that, for Social factor the value of Pearson Correlation is 0.732 which also shown a

strongly positive relationship with the dependent variable. This proved that social factor of vision to change and concern on Halal does influencing the readiness toward Halal logistics in food and beverage industry in Johor. Lastly, technological factor shown a value of 0.695 based on Pearson Correlation Analysis whereas it illustrates a moderately positive relationship with the dependent variable. Therefore, this proved that technological factor from previous research of Tarmizi and Haleem that Halal Assurance System (HAS) and Robust ICT does influencing the readiness of food and beverage industry towards Halal logistics.

5.2.3 Research Objective 3

RO 3: To examine the most significance factors faced by F&B industry toward halal logistics

The final research goal is to investigate the most important factor impacting consumer spending using credit cards readiness of food and beverage industry toward Halal logistics. SPSS Multiple Linear Regression analysis can help you attain this goal. According to table 4.8.3, the most significant factor affecting readiness of food and beverage industry toward Halal logistics.

Based on the result shown in Table 4.8.3, social factor is the most significant factor among other factors. The table shows Pearson Correlation value of social factor with 0.732. This shown a strongly positive relationship with dependent variable, readiness of food and beverage industry organization. This been followed by second highest value of political factor of 0.703 and lowest value of 0.695 for technological factor. Therefore, social factor is the most significant factor consist of vision to change and concern on Halal.

According to Tarmizi et al. (2017), firms must supply a sufficient facility regarding the vision that has been created on achievement and fulfil the demand of halal logistics in order to have the vision. This will improve income and seamlessly grow manufacturing. Food and beverage industry with a halal logistics vision should be equipped with a new halal management team that will oversee all areas of halal logistics operations. It is recommended that logistics firms appoint at least one halal adviser or halal internal auditor to assist management in monitoring day-to-day logistics operations. Companies may also hire trainers to instruct their personnel on halal training programs (Ngah et al., 2015).

5.3 Research Implication

The goal of this research is to gain a better knowledge of the essential aspects impacting the food and beverage industry's preparation for Halal logistics as the demand for Halal food and beverage products grows. Although just three elements were explored in the study, the researcher concluded that there were more aspects that may impact consumer spending using credit cards. As a result, the researcher proposed a new framework that future researchers may adopt.

Through a literature review, Pearson's Correlation Coefficient analysis, and Multiple Linear Regression analysis, the researcher is able to achieve the research objectives and test the hypothesis on the relationships on independent variables (political, social, and technological) influencing consumer spending by using credit cards. In conclusion, political, social, and technological factors impact the food and beverage industry's preparation for The most important component that might impact the dependent variable, food and beverage industry readiness, is Halal logistics and social factors.

The critical factors influencing readiness towards Halal logistics among food and beverage industry is crucial to have in depth understanding of Halal logistics issue in food and beverage organization. With a huge potential growth for Halal market in future, it is very important for Halal logistics in food and beverage industry also other parties to play their roles in focusing on the factor that impacting readiness on adopting Halal logistics. This will eventually help Halal product consumer to have less concern about Halal product among food and beverage industry production. The Halal industry's performance is mostly dependent on logistics service management capabilities in assuring the integrity of Halal products (Ngah et al.2015). As a result, a complete strategy should be devised. The government has a significant impact on the logistics business. As well as other factors as top management of food and beverage industry need to focus on these crucial factor. Besides, advanced technology in Halal Assurance System is as important as other factor.

5.4 Research Limitation

Several constraints were encountered by the researchers over the course of the investigation. For future research, the constraint might be improved. The first limitation is a time constraint, which limits the researcher to studying only three independent variables, which are political, social, and technological issues. However, the researcher is aware that there are other crucial aspects that might impact food and beverage industry preparation for Halal logistics. In the future, the Halal logistics study might focus on more variables to reach a more accurate and exact outcome.

The food and beverage industry organization answers are the next constraint. Potential responders may decline to complete the questionnaire for personal reasons. Some respondents may not answer the questionnaire based on their personal experiences and may not fully comprehend the questions before responding. As a result, the data may not be able to give sufficient proof of the food and beverage industry's preparation for Halal logistics. The questionnaire was prepared by the researcher based on the issue description in order to acquire precise and accurate data for an important study. As a result, the data may be insufficient to reflect the food and beverage sector organizations in Johor.

5.5 Recommendation for Future Research

The researcher offered a new conceptual framework for future research because this study only includes three independent variables: political, social, and technological factors. However, the researcher thought that there are additional crucial aspects that might impact the food and beverage industry's willingness to embrace Halal logistics. Future academics may do qualitative study on Halal logistics studies to acquire a better understanding of the food and beverage industry's preparation for Halal logistics. Future studies might expand the study's sample size to achieve generalization on Halal logistics.

Based on the study of Tarmizi et al. (2017), social factor is one of the factors that influencing readiness towards Halal logistics among food and beverage industry. Therefore, in this study social factors have been proven to be the most significant among other independent variables (political, technological). Meanwhile, political factors also one of the main factor in Halal logistics implementation among halal logistics players based on Ab Talib et al. (2020)

study. Apart from country-specific studies, the involvement of government is seen in a variety of logistics fields. Kunz and Reiner (2012) find in a meta-analysis of humanitarian logistics research that 'government' is among the most often investigated components, demonstrating the relevance of government in the relief logistics area. Besides, consumer confidence is also an indicator in the external economic factors (Mohamed et al., 2010). The vast Muslim population of 1.8 billion (Grim and Karim, 2011) must consume Halal products and services, and large acceptance among Muslim consumers is an indication that consumer confidence is strong. Hence, economic factor can be used for future study. Furthermore, technological factor also can be used for further research and be proven to be one of the most significant factor. The researcher constructs a new research framework for future research as below.

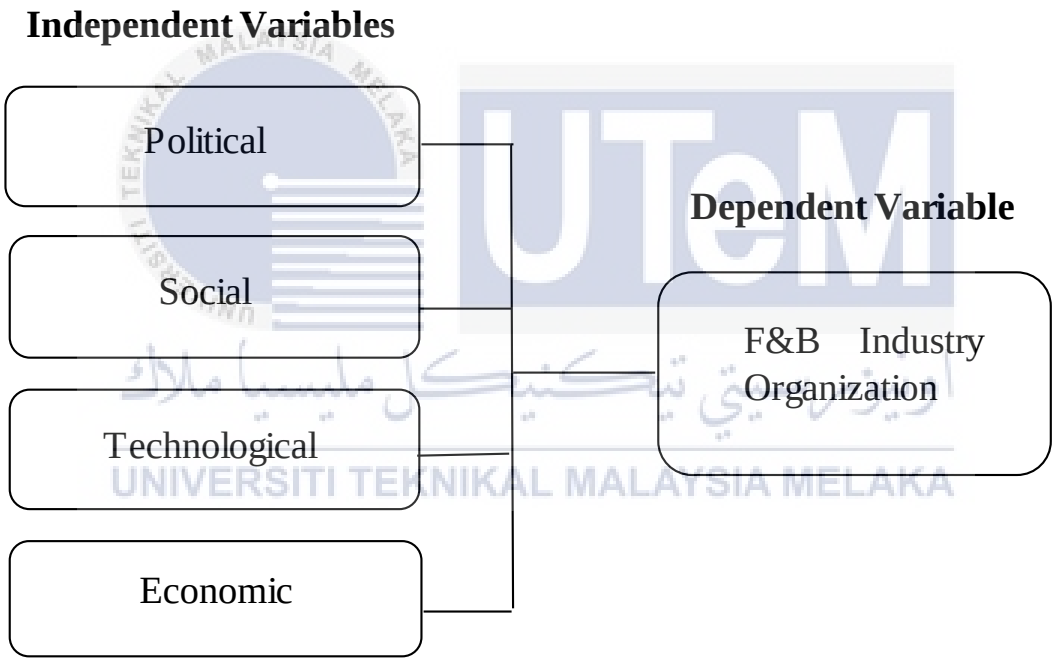

Figure 5.5: New Conceptual Framework

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APPENDICES

APPENDICES A: QUESTIONNAIRE

QUESTIONNAIRE

Factors Influencing Readiness towards Halal Logistics among Food and Beverage Industry in Johor

Dear Sir/Miss/Madam.

Thank you for taking part in this research. My name is Nur Farah Atikah Binti Buang and I am a Bachelor Degree student from the Faculty of Technology Management and Technopreneurship (FPTT), University Technical Malaysia, Malacca. The objective of this survey is to investigate factors influencing readiness towards halal logistics among food and beverage industry in Johor. The information obtained from this survey will be kept confidential and will solely be used for academic purposes. This questionnaire comprises of three sections. Please read the questions carefully before you answer them and only choose one answer from each of the question given. I would be most grateful if you could take about 5-10 minutes to complete this short questionnaire. Thank you very much for your willingness and cooperation. If you have any question or concern about the study, you may contact me through the following:

Nowadays people started to be aware of halal food and it has create rising in halal demand around the world especially in Johor, Malaysia which majority lives by Muslim. Therefore, there are growing number of F&B manufacturers getting halal certificate from both Muslim and Non-Muslim manufacturers. Hence, this survey contains a few questions about the factors that influencing readiness towards halal logistics among food and beverage industry in Malaysia.

For further clarification and/or instruction, please contact :

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QUESTIONNAIRE

Research Title: Factors Influencing Readiness Towards Halal Logistics among Food and Beverage Industry in Johor

SECTION A: DEMOGRAPHIC

Please mark (/) at the provided space.

1. Gender

   ☐ Male ☐ Female

2. Age

   ☐ 20-29 years old ☐ 30-39 years old
   ☐ 40-49 years old ☐ 50-59 years old
   ☐ 60 above

3. Race

   ☐ Malay ☐ Chinese
   ☐ Indian ☐ Others: _____

4. Duration of Working Experience

   ☐ Less than 1 years ☐ 3-5 years
   ☐ 1-2 years ☐ More than 5 years

SECTION B: INDEPENDENT VARIABLE

Please indicate your level of agreement on the following statements based on your experience. The rating is from 1=Strongly Disagree to 5=Strongly Agree. Please choose only one answer from the answer given.

Code		Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
POLITICAL FACTORS REGULATION AND INFRASTRUCTURE						
RI1	Rules constitutes by the government helps company to easily adopt Halal logistics	Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
RI2	Established Halal logistics standards effecting halal logistics operation	Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
RI3	A reliable physical and non-physical infrastructure helps to facilitate Halal logistics process	Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
RI4	Sustainable Halal logistics facility affecting the efficiency of Halal logistics operation	Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
RI5	Government must provide support for promotion of Halal industry	Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
SOCIAL FACTORS CONCERN ON HALAL AND VISION TO CHANGE						
CHVC1	Customers are confident that our product fulfills the hygiene, sanitation and food safety of Halal logistics standards	Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
CHVC2	Our consumers require our company to operate based on Halal requirements	Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
CHVC3	Our company ready for new policies and practices of Halal logistics	Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
CHVC4	All members in company will be given opportunity to deal with Halal logistics	Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
CHVC5	All members in company are ready for new innovation in Halal logistics	Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
TECHNOLOGICAL FACTORS HALAL ASSURANCE SYSTEM (HAS) AND ROBUST ICT						

HR1	Advanced information system help to ensure the Halal system	Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
HR2	HAS helps Halal logistics operation runs smoothly	Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
HR3	The use of ICT increase customer trust in the company's Halal logistics	Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
HR4	ICT helps to trace potentially non-halal ingredients in the product	Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
HR5	Robust ICT will develop efficient Halal systems	Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5

SECTION C: DEPENDENT VARIABLE

Please indicate your level of agreement on the following statements based on your experience. The rating is from 1=Strongly Disagree to 5=Strongly Agree. Please choose only one answer from the answer given.

Code		Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
F&B INDUSTRY ORGANIZATION						
FIO1	Support from top management is essential in the process of halal logistics implementation	Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
FIO2	Organizations need to develop capability to deal with halal logistics challenges	Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
FIO3	F&B industry are working together to ensure the 'halalness' of their products	Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
FIO4	Halal food and beverage products demand is increasing every years	Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5
FIO5	Enabling organizational culture helps the company to implement Halal logistics	Strongly Disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5

B. GANTT CHART FOR FYP 1

YEAR	2021/2022															
WEEK/ ACTIVITIES	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
Attending PSM 1 briefing									MID SEMESTER BREAK							
Attend first meeting with supervisor																
Topic discussion																
Drafting topic proposal																
Forming introduction, problem statement, research objectives & questions																
Submit draft topic proposal to supervisor																
Topic confirmation																
Start doing literature review																
Read journals for literature review																
Identifying variables & developing conceptual framework																
Attend second meeting with supervisor																
Determining methodology used in the research																
Start doing research methodology																
Submit draft to supervisor																
Revised Chapter 1 to 3																
Submission FYP 1																
Preparing Slide																
Presentation of FYP																

C. GANTT CHART FOR FYP 2

Year	2022/2023														
Task/Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Constructing Questionnaire															
Revised for Questionnaire															
Questionnaire Distribution															
Data Collection															
Data Analysis															
Chapter 4- Findings and Discussion															
Revised Chapter 4															
Chapter 5- Conclusion															
Revised Chapter 5															
Final Edit FYP Report 2															
FYP Presentation															
FYP Report Submission 2															