

DETERMINANT FACTORS TOWARDS THE INTENTION TO ADOPT
HALAL LOGISTICS SERVICES

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Alhamdulillah...

First and foremost, I would like to dedicate this thesis to my beloved husband,

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ABSTRACT

Halal logistics is a notion that supports the wholesomeness of halal supply chain. This new area of study is still scarcely researched, particularly studies that provide empirical evidence on adoption of Halal logistics. Thus, this study aims to understand the internal and external factors that influence the intention of Malaysian small medium enterprises (SME) to adopt halal logistics services (HLS). This research employed a quantitative research design using survey research method. Three objectives were established. Firstly, to investigate the current state of halal logistics adoption among SMEs that was achieved through literature reviews and preliminary study. There were 13 factors found with four internal and seven external factors which were reduced to seven after pilot study and reliability test were conducted. The hypotheses derived were based on seven factors acquired: the presence of familiarity with innovation, status characteristics and position in social network as internal factors; and benefits, geographical setting, societal culture and political condition as external factors. The second objective is to determine the significant factors that influence SMEs intention to adopt HLS. Online questionnaires made available to 1642 enterprise decision makers of halal SMEs listed in Halal Industry Development Corporation (HDC) Halal Directory and 176 valid responses were received. Correlation coefficient was used to test the hypotheses. Four of seven hypotheses were supported. Finally, the final objective was achieved by the proposal of an adoption intention model which Structural Equation Modeling was used to evaluate the fitness of the model. The proposed model showed that both internal and external factors have strong predictive power on the adoption intention of HLS among Malaysian SMEs. Therefore, this study has succeeded in stipulating evidence to show that being in the same social group HLS players and being familiar on HLS will significantly influence SMEs to adopt HLS. Being positioned in the same group of HLS actors will result in higher accessibility to information on HLS. Understanding of HLS benefits versus cost and with good support from the government are the necessary enablers of adoption of HLS among Malaysian SMEs. This study has also made major contribution to future research in service innovation adoption by providing an instrument to measure intention adoption service innovation model.

ABSTRAK

Logistik Halal merupakan konsep yang menyokong kesempurnaan rantaian bekalan halal. Kajian bidang baru ini masih kurang dilakukan, terutamanya kajian yang memberikan bukti empirikal tentang penerima-pakaian logistik halal. Justeru, kajian ini bertujuan untuk memahami faktor-faktor dalaman dan luaran yang mempengaruhi niat pengusaha kecil dan sederhana (PKS) di Malaysia untuk menerima-pakai perkhidmatan logistik halal (PLH). Kajian ini dikendalikan dalam bentuk penyelidikan kuantitatif menggunakan kaedah soal selidik. Tiga objektif telah ditetapkan. Pertama adalah untuk merangka satu model untuk mengenal pasti pengaruh faktor-faktor penggunaan inovasi (Logistik Halal) di kalangan PKS Halal Malaysia yang dicapai melalui kajian literatur dan kajian awal. Hasilnya, 13 faktor iaitu empat dalaman dan tujuh luaran telah diperolehi, kemudiannya dikurangkan kepada tujuh faktor selepas kajian awal dan ujian kebolehpercayaan dilakukan. Tujuh hipotesis kajian yang diperolehi adalah berdasarkan tujuh faktor yang diperolehi: pemahaman terhadap inovasi, status, kedudukan dalam rangkaian sosial adalah merupakan faktor-faktor dalaman; manakala manfaat, tetapan geografi, budaya masyarakat dan keadaan politik merupakan faktor-faktor luaran. Objektif kedua adalah untuk mengenalpasti faktor-faktor ketara yang mempengaruhi niat menerima pakai PLH di kalangan PKS Halal. Soal selidik atas talian telah disediakan kepada 1642 pembuat keputusan PKS halal yang disenaraikan dalam Halal Industry Development Corporation (HDC) Direktori Halal dan 176 responden diterima. Korelasi pekali untuk menguji hipotesis telah digunakan. Empat dari tujuh hipotesis disokong. Akhirnya, objektif terakhir dicapai dengan mencadangkan satu model niat guna-pakai halal logistik dan permodelan persamaan berstruktur telah digunakan untuk menguji kecerdasan model tersebut. Model tersebut menunjukkan bahawa kedua-dua faktor dalaman dan luaran mempunyai kuasa ramalan yang kuat terhadap niat guna-pakai PLH di kalangan PKS. Oleh itu, kajian ini berjaya membuktikan bahawa berada dalam kumpulan sosial yang sama dengan PLH dan mempunyai kebiasaan pada PLH akan mempengaruhi niat penggunaan logistik halal. Kedudukan didalam kumpulan pengguna PLH akan menyebabkan capaian terhadap informasi tentang PLH yang lebih tinggi. Kefahaman tentang kebaikan berbanding kos ditambah dengan sokongan dari kerajaan adalah penggerak utama dalam mempromosikan pengguna-pakaian PLH oleh PKS di Malaysia. Kajian ini juga telah memberikan satu alat untuk mengukur model guna-pakai perkhidmatan inovasi logistik Halal.

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LIST OF ABBREVIATIONS

HLS	-	Halal Logistics Services
SMEs	-	Small Medium Enterprises
IKS	-	Industri Kecil Sederhana
LSPs	-	Logistics Service Providers
JAKIM	-	Jabatan Agama Kebangsaan Islam Malaysia
HDC	-	Halal Development Corporation
IHIA	-	International Halal Integrity Alliance
PPIM	-	Persatuan Pengguna Islam Malaysia
YES	-	Yayasan Ekonomi Sejahtera
TOYYIBAN	-	Wholesomeness

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CHAPTER 1

INTRODUCTION

This study has explored the factors that influence the intention to adopt halal logistics services among small medium enterprise (SMEs). The researcher had identified factors that contribute to SMEs' decision on employing halal logistics services. According to Sungkar et al. (2008), halal integrity means that the halal product are being sourced, produced, stored and distributed in the manner coherent with the Islamic values, where these are in line with the modern and universal values such as high quality and safety, hygienically produced with respect for animal welfare and fairly traded. This posit that, in order for the integrity of halal food is maintained, SMEs not only need to ensure that the production or manufactured of the food is accordance to halal standard but the handling of the halal product throughout the halal food supply chain is also complied to halal standard and guideline. The outcome of this study is to identify the internal and external factors that influence the decision on adopting halal logistics service (HLS) among SMEs. Among these factors, this study also ascertain the critical factor that influence the most on the decision of SMEs on adopting HLS and finally this study proposed a model based on the factors that can promote the adoption of HLS among SMEs.

1.1 Background of the Problem

يَأْتِيهَا النَّاسُ كُلُّوا مِمَّا فِي الْأَرْضِ حَلَالًا طَيِّبًا

“O ye people! Eat what is on earth, lawful (halal) and good (tayyib)...”

(Surah al-Baqarah, 2:168)

Surah al-Baqarah 2:168 shows that Allah permits us to eat anything there is on earth as long as it is halal and sacred according to Syarak. It is a Muslim responsibility to make certain that the food and any product used are produced halal still remains halal and safe when it reaches our table. In other words, products consumed by Muslim must not only halal but as also *toyyiban*.

In Islam, halal is not limits to consumable products but also to the way of life. It is Muslim responsibility to make certain that the food and any product that they use is produced halal still remain halal and safe when it reach our table. In other words, products consumed by Muslim must not only halal but as also *toyyiban*. The concept of Halalan Toyibban not only covers the requirement of Shariah Law but also the requirement of high quality consumables, in the context of hygiene, sanitation and safety. Surah Al-Maidah 5:4 say “*Lawful onto you are Tayyibaat*” (all kind of halal food) which explain that Islam underlines that Muslims should find *rizk* (sustenance) and consumed food which is halal and *toyyiban* as it ensures better healthy life which able to portray good attitudes and behaviours (Yousef, 2010).

Hence, logistics plays an important part in ensuring the integrity halal product during the handling and distribution throughout its supply chain. Transportation is one crucial element in logistics. The issue of possible cross-contamination of a halal product during transportation activities is high and can easily found in mass and social medias. In 2011, a study has been conducted to investigate whether the

integrity of halal products can be maintained during transportation of halal goods and whether halal control is needed for the transportation activities (Husny et al., 2011). Evidences to support the study, profound details and explanations from the different stakeholders were gathered through interview with halal authorities such as Jabatan Kebajikan Islam Malaysia (JAKIM), International Halal Integrity Alliance (IHIA) and Halal Development Corporation (HDC) as well as the Malaysian Islamic consumer association (PPIM) representatives.

The result from the study shows that there is a clear need for halal control in handling halal foods and products particularly during transportation process. Furthermore, two standard initiatives on halal product handling have been established by Yayasan Ekonomi Sejagat (YES) and IHIA logistics standard that also catered transportation. Based on the result and initiatives done by these agency showed clear needs of halal control in halal product transportation, standards and guidelines are necessary in order to help food manufacturers, logistics service providers, Islamic authorities and other stakeholders involves with the logistics operations of halal products. As a result, two standards related to halal logistics has been produced, namely MS2400: 2010 Halalan-Toyyiban Assurance Pipeline (Halal-TAP) and Global Halal Standards (Logistics) initiated by YES and IHIA respectively. To date, these two initiatives are the only program in the world that provides a clear and concise guideline of how halal product should be managed from the perspective of logistic operations. Besides than that, Husny et al. (2011) also revealed that most of SMEs participated in MIHAS or any HDCs halal product expos perceived that adopting hlogistics services are expensive and strenuous. These findings raised concerns on how halal food integrity are handled among the SMEs particularly on the area of transportation; and what are the critical the factors that influence the decision of SMEs owner's decision on adopting halal logistics services. Result from these preliminary qualitative studies motivates the research to focus on the direct user of halal logistics services, which are SMEs.

To begin this study, two preliminary qualitative investigations have been conducted to comprehend the recent halal logistics service offered by halal logistics

service providers (LSPs) in Malaysia and the SMEs perception on adopting these halal logistics services. Several companies have been interviewed, namely Kontena Nasional Berhad, MISC Berhad and Century Logistics Sdn Bhd. The result revealed that Kontena Nasional Bhd is the only LSP that hold halal logistics certification from JAKIM in 2010. Report of the interview can be referred to Appendix A1, A2 and A3. Another more current preliminary study done to find out the current adoption of halal logistics services in 2014. The interviews were done with MISC Integrated Logistics Sdn. Bhd., Kontena Nasional Berhad, Century Logistics Holdings Berhad, Penang Port Sdn. Bhd. and Freight Management Holdings Berhad. These investigations revealed that most of clients and customers that used the halal logistics services are big companies and multinational corporations (MNCs) while insignificant number of small and medium enterprises (SMEs) companies use such halal services. Summary report of these interviews can be referred to Appendix A6. Details on this study are mentioned in Chapter 3 and 4 in the report.

Another important justification for focusing on SMEs is because SMEs being the biggest contributor on Malaysian economy. According to (2008-2012) SMEs and SMIs comprises 1,377,675 (97 per cent) over the overall total halal product certification 207,180 up to the year of 2010. MNCs only add to 69,505 (3 per cent) applications. It is only right, if the study focuses on SMEs as the key player in Malaysian food and consumable product industry. This ascertains that even though the major contributor on foodstuff and consumable product is SMEs, only few of them employ the halal logistics services. Out of 155,336 SMEs who qualify to apply halal certification, only 1,655 (1.2 per cent) are certified by JAKIM and the other 99 per cent are still not certified halal.

Table 1.1: The Numbers of Games: The Malaysian Logistics Sectors Halal Logistics Standards

Estimated Growth	Area of Growth
11.5%	Est. annual growth rate, from RM108b in 2010 to RM121b in 2011
12.6%	Est. compound annual growth rate, to reach RM 196.5 billion in 2015
95%	Percentage of total volume handled by sea-freight in 2010
12.5%	Est. increase in cargo volume by sea, to 494 mil tonnes in 2011
10%	Est. growth rate (y-o-y) for Malaysian external trade; from RM1.16trl in 2010 to RM1.28trl in 2011
37.8%	Port Klang's total sea thoroughput in 2010. Port Tanjung Pelepas is 22%
12%	Est. cargo air volume increase in 2011, from 918,100 tonnes in 2010 to 1.03 mil tonnes in 2011
73%	Percentage of total cargo volume by air contributed by KLIA
3.7%	Est. increase in cargo volume by rail, from 3.7 mil tonnes in 2010 to 5.5 mil tonnes in 2011

Source : The International Halal SME Report Directory 2011/2012

Table 1.1 clearly illustrate that logistics is playing the major role in assisting Malaysian industry. Malaysian government sees this as a huge opportunity. Given Malaysia's strong halal brand recognition and halal logistics standards, local logistics service provider should consider tapping into the growth opportunities within the halal sector. With the knowledge of there is a need for halal logistics service; and seeing the potential income of halal logistics industry; and the fact that Malaysia is gearing to be world halal hub, local LSPs should consider to provide halal logistics services that adopt or comply to MS2400: 2010. At the same time local LSPs should also understand the needs of their customer especially the SMEs since the needs and the requirements of SMEs are different from MNCs due to their size, capacity, capability etc.

Looking at the clear need of this study in terms of industrial need, it has come as a surprise to the researcher that there is still no empirical study done to investigate the factors that may influence the SMEs intention to adopt halal logistics services that offered by these halal compliant LSPs. Most studies done by researchers on halal logistics are qualitative studies focusing on the concept of halal logistics (Hashim (2010), Talib and Hamid (2014), Tieman (2011), Talib et al. (2013), Jaafar et al.

(2013), Sirajuddin et al. (2014)), readiness towards halal logistics (Tarmizi et al. (2014), Tarmizi et al. (2014), Kamaruddin et al. (2012), Fathi et al. (2016)) and customer perception on halal logistics services (Tieman and Nistelrooy (2014), Roslan and Hamid (2014), Roslan and Hamid (2014)). The nearest study done to adoption of halal logistics services is conducted by Talib et al. (2014). However, this study was done qualitatively and no empirical evidence was produce to support the real factors that influence the adoption of halal logistics services. Futhermore, this study focus on LSPs and only looking at external environmental factors. Therefore, these clearly shows the knowledge gap in the halal logistics adoption studies.

1.2 Purpose of the Study

The aim of this research is to explore the relationship between adoption of innovation and the factors that influence the decision to adopt that innovation. In this research the focus of innovation is on the halal logistics services and the adopters are referred to Small Medium Enterprise (SMEs). Wejnert (2002) argued that adoption of an innovation is associated with three factors: (1) the characteristic of innovation, (2) characteristics of adopters and (3) characteristics of the environment. Better understanding of these characteristics in the process of decision making to adopt the innovation is one of the outputs of this research.

In order to achieve the output, researcher has designed an instrument to measure the different aspect of adoption of innovation decision. Among the challenges of this research is the lack of studies on innovation adoption (variables) that influence the decision in adopting service innovation particularly in halal logistics services. Therefore lack of existing scales that could help in establishing the validity and reliability of an instrument to measure adoption decisions. Although study by Wejnert (2002) has integrate models of diffusion of innovation into a conceptual framework, there is still no such instruments that measure innovation adoption decision has been developed. The main contribution of this study seeks to fill this gap.

1.3 Problem Statement

Government's intention in making Malaysia as a global halal hub; has created a new playing field in which the participation of SMEs is very much desired. The halal hub will create opportunities for the Muslims SMEs to penetrate the halal market such as the Middle East, the OIC countries and the rest of the world. A study done by Abdul, et al. (2008) shows that out of 136 SMEs, only 64.9 per cent of these SMEs have obtained halal certification and 44.3 per cent of these entrepreneurs are Muslims. However, there are another 35.1 per cent of SME who still do not obtained halal certification. This is quite a big number since Malaysia is a Muslim country and being the first country to introduce halal status and halal logo in 1971 and halal standard MS1500 was first introduced in 2004. From this study, it is also clear that non-Muslim entrepreneurs are more than the Muslim entrepreneurs. The concept of halal is well accepted and adopted by the non-Muslim businesses since they can see the huge potential of business opportunity. Nevertheless, the non-Muslims are facing a huge challenge in adopting the halal standard. This indicates that halal control is needed to ensure that the integrity of halal product is safeguarded. This is because non-Muslim entrepreneurs will not take halal as responsibility but more as business needs or to gain trust from Muslim customers. Therefore, a control is needed to guarantee the wholesomeness of halal product.

Halal should not only be viewed in the perspective of how the product is produced but also in the perspective of how it is being handled throughout the process of reaching the consumers. This complete supply chain cycle is called "from farm to fork". This concept should ensure that there will not be any cross-contamination between halal product and non-halal substance that will result the halal product turns to be non-halal (haram). Standard 1500: 2004 – Halal Food: Production, Preparation, Handling and Storage – General Guidelines (1st Revision) incorporates the Good Manufacturing Practices, Food Manufacturing and hygiene sanitary requirement. The concept of halal shall also not be viewed in the perspective of consumable goods only. In fact there are 7 categories of halal areas or schemes besides than food and beverages; and one of them is halal logistics. The objective of halal

logistics is to ensure the integrity of halal product can be sustained throughout all logistics process and therefore win customer's trust.

Husny, et al., (2011) previous study has been expanded the needs of halal logistics which concluded that there is clear need of halal logistics control from the perspectives of halal authorities or agencies (JAKIM, HDC and IHIA) and consumer (PPIM). This also shows that the awareness on the importance of maintaining the integrity of halal food throughout the halal supply chain has gradually increased among the halal product consumers. Even though this situation has been understood by most food producers or food manufacturers particularly SMEs; only a few of them had decided to adopt halal logistics services. This statement has been supported by phone interview sessions and email correspondence between the researcher and five halal logistics operators listed by Halal Industry Development Corporation (HDC). The logistics operators are as shown in Appendix A4. Questions asked during the interviews or in email correspondences are as shown in Appendix A5 and the summary of responses gain from the respondents can be referred to Appendix A6.

Interviews and email correspondents done showed that all five halal logistics operators confirmed there is little or no demand from SMEs on their halal logistics services. Among the factors identified is higher cost rate, no policy of enforcement of using HLS, lacking on government support and SMEs knowledge and awareness on halal logistics is still low. However, these identified factors are from the perspective of halal logistics service provider (halal LSPs). A study needs to be carried out to identify the factors from the halal LSPs perspective and literature reviews and to verify these factors with actual response from SMEs. Based on the verification process, the researcher has proposed a model that outline the critical factors that should be given priority by the government in order to increase the participation and adoption HLS among SMEs. Therefore, the government will be able to act appropriately in planning the necessary actions to promote SMEs to employ halal logistics services and ensure the integrity of our halal product is maintained and controlled.

Furthermore, since halal logistics is a new area of research, studies in halal logistics is still scarcely done. In terms of industrial need it is very clear, however, researcher found it odd that there is very little empirical studies done to investigate the factors that may influence the SMEs intention to adopt halal logistics services that offered by these halal compliant LSPs. Most studies done by researchers on halal logistics are qualitative studies focusing on concept of halal logistics, readiness towards halal logistics and customer perception on halal logistics services as mentioned previously. However, Talib et al. (2014) has conducted an adoption study of halal logistics. Nonetheless, that study is done qualitatively and no empirical evidence was produce to support the real factors that influence the adoption of halal logistics services. Futhermore, this study focus on LSPs and only looking at external environment factors. Therefore, looking at these clear knowledge gap in the halal logistics adoption studies, an empirical study need to be conducted to provide verifiable evidence to really identify the significant factors that influence SMEs' intention to adopt halal logistics service and could proposed a tested research model to be used to study halal logistics adoption.

1.4 Research Proposition / Objectives

This study aims to examine the factors that influence the decision to adopt halal logistics services among halal SMEs in Malaysia. In order to accomplish it, this study needs to achieve three research objectives as follows:

- RO1. To investigate the current state of halal logistics services adoption among the SMEs.
- RO2. To identify the internal and external factors that significantly influence SMEs intention to adopt halal logistics services.
- RO3. To propose a halal logistics adoption intention model.

1.5 Research Questions

There are several questions that need to be answered in order to achieve the research objectives. To analyze further the research intentions, the objectives of this study were translated into five research questions as the following:

- RQ1. What are the potential internal factors that influence adopters to adopt halal logistics service?
- RQ2. What are the potential external factors that influence adopters to adopt halal logistics service?
- RQ3. Which among the factors that are significant influence adopters to adopt halal logistics service?
- RQ4. What is the suitable model that can be used to predict the intention to adopt halal logistics services among SMEs.

1.6 Research Hypothesis

Set of hypothesis had been prepared to achieve RQ3. These hypotheses covered each and every factor in the internal and external categories that influences the adoption of halal logistics services among halal SMEs. Details on the formation of these hypotheses will be explained in Chapter 2 – Literature Review.

1. Internal Factors

- H1. SMEs familiarity with innovation significantly influence the intention to adopt HLS.

H2. SMEs status characteristics significantly influence the intention to adopt HLS.

H3. SMEs position in social network significantly influence the intention to adopt HLS.

2. External Factors

H4. SMEs perceived benefits of innovation significantly influence the intention to adopt HLS.

H5. SMEs geographical setting significantly influence the intention to adopt HLS.

H6. Societal culture significantly influence SMEs intention to adopt HLS.

H7. Political condition significantly influence SMEs intention to adopt HLS.

1.7 Scope of Research

The scope of this study defined the boundary of the research. In this study, the scope is divided into four elements:

1. The study has utilized survey data collected between the months of February 2015 to April 2015.
2. The study targeted respondents consisting of the Small and Medium Enterprise (SMEs) that are producing halal product in Malaysia.
3. The respondents must be the owner or a decision maker for that company.

4. Data from logistics service providers (LSPs) was obtained as secondary sources to support the study.

1.8 Expected Contributions

The outcome of this study provides the factors that contribute or influence the decision for SMEs to adopt halal logistics services (a service innovation) as much as adopting the halal goods production practices. An instrument that measure innovation adoption decision has been proposed.

1.9 Significance of Research

This study has been conducted to address the important issues on why halal logistics services adoption among the SMEs. Three significant for this research has been identified and the shown as follows:

1. This study is an important endeavor in promoting the adoption of halal logistics services among SMEs. By adopting halal logistics services, not only SMEs will able to be in the same standards as multi-national companies and penetrate the world halal market but also carrying the responsibility as a Muslim goods producer or as the producer of halal goods. The reason being, HLS concentrates on maintaining the integrity of halal product throughout its whole supply chain process. Therefore, by adopting HLS, its shows that SMEs are really concern about its product quality and assured a competitive advantage. Thus, SMEs will able to gain the trust from Muslim and non-Muslim consumers worldwide. This research provides the significant factors that contribute to the decision of employment of halal logistics services among SMEs. If these factors are satisfied, high chances that SMEs will adopt HLS in their supply chain activities.

2. Moreover, this study would be valuable to the government or policy maker in strategizing a plan to promote and assist SMEs to be the world class halal good producers and sub-sequently increase the country's exports. SMEs stand in average of 40 – 60% of a country GDPs where in the case of Malaysia 47% and 97.3% business establishment in 2015 according to SMECorp Malaysia. Hence, by understanding the factors that will significantly influence the SMEs intention to adopt HLS and, with the model proposed by this study, policy maker and the government will be able come up with the plan on encouraging SMEs to employ halal logistics services in their business activities.
3. The outcome of this study would also be beneficial to future service innovation adoption studies. It will serve as a future reference for researchers on the subject of service innovation and halal logistics services. This research has developed a comprehensive instrument that measure innovation adoption intention and it can be adapt to other related researches.

1.11 Structure of the Thesis

The structure of this thesis is as follows:

Chapter one provides the preface of the research by giving a comprehensive overview of the study in a whole, which per se, set the establishment of accompanying sections. This chapter begins with an outline of the research problem background where halal and specifically on halal logistics adoption issues where discussed. The preliminary studies to support the existence of the research problem were also explained. Consequently, the research objectives, research questions, research hypotheses followed by the significant of research, scope of the study and lastly the structure of the thesis.

Chapter two reviews the literature relating to the concept of halal, halalan toyyiban and halal logistics. This chapter also examines the existing empirical

studies on adoptions of service innovation. The theory of diffusion of innovation (DOI) by Rogers (2003) and its evolution into Wejnert (2002) conceptual framework were analyzed. Based on the literature reviews, research hypotheses were derived; and an influence model of internal and external factors of SMEs on the intention to adopt HLS was formulated.

Chapter three provides the justification and clarification of the research design chosen for this study. Procedures of formulating the hypotheses to be examined in the next chapter were also explained. Conclusively, the steps of analyzing the interview and questionnaire data were also deliberated.

Chapter four stipulates discussion on data collection where comprises of preliminary study, pretest, pilot study and the main data collection. Data analyzed in this preliminary and pilot study helps in understanding the factors that may influence SMEs intention on adopting HLS. These findings aid the item construction during questionnaire development. Other than that, this chapter also provides the statistical analysis of the data collected from the questionnaire survey. Analysis involved in this chapter includes the process of verifying the validity and reliability of the research instrument and validation of the proposed model is performed.

Chapter five specified a series of analysis on the relationship between the construct identified from previous chapter. This chapter also presents the analysis of research hypotheses testing and the evaluation of the proposed model of intention of SMEs to adopt HLS.

Ultimately, chapter six contemplates the major findings of this study and deliberates their implications on this research and halal industry.

The following chapter will review literatures on theory of diffusion of innovation, adoption and conceptual framework of integrating models of diffusion of innovations. Literatures on halal concept and halal logistics have also been reviewed to understand the current issues in halal industry for SMEs. Research hypotheses had been derived and a proposed research model has been formulated.

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