THE INTENTION TO USE ISLAMIC BANKING PRODUCTS AND PERCEIVED IMPACTS ON FINANCIAL INCLUSION: A STUDY TO MEASURE ISLAMIC FINANCIAL LITERACY IN MALAYSIA

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MAY 2021

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A final year project submitted in partial fulfillment of
the requirement for the degree of

BACHELOR OF BUSINESS ADMINISTRATION
(HONS) BANKING AND FINANCE

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FACULTY OF BUSINESS AND FINANCE
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MANAGEMENT

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DECLARATION

We hereby declare that:

(1) This undergraduate research project is the end results of our own work and that due acknowledgement has been given in the references to ALL sources of information be they printed, electronic, or personal.

(2) No portion of this research project has been submitted in support of any application for any other degree or qualification of this or any other university or other institutes of learning.

(3) Equal contribution has been made by each group member in completing the research project.

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Date: 19 AUGUST 2021

ACKNOWLEDGEMENTS

DEDICATION

First of all, we would like to express our deepest gratitude to our research project supervisor, Dr. Au Yong Hui Nee for her valuable supports and efforts in guiding us throughout the completion of this research. We really appreciate her valuable guidance, advice and motivation when we were facing difficulties during this research project.

Apart from that, we would like to dedicate this research project to our family members for the appreciation of their encouragement. Furthermore, this research project is dedicated to all of our group members who have contributed their time, effort, knowledge and cooperation thorough this research project journey. Due to the collaboration, understanding and enthusiasm toward this research project, it had led to the completion of this research project.

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LIST OF ABBREVIATIONS

AVE   Average Variance Extracted

PLS-SEM   Partial Least Squares-Structure Equation Modelling

HTMT   Heterotrait-Monotrait Ratio of Correlations

VIF   Variance inflation factor

TPB   Theory of Planned Behaviour

CR   Composite Reliability

IV   Independent/ Exogenous variables

DV   Dependent/ Endogenous variables

TPB   Theory of Planned Behavioural

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PREFACE

Malaysia started its own Bank Islam operation in the year of 1983 and since then Islamic banking become one of the important banking systems in Malaysia as it performs interest free activities based on the principle of Shariah law. Islamic banking finance can be sold to Muslims and non-Muslims as it is the combination od Islamic Economies and the modern lending principles.

This research project is conducted to examine the intention to use of Malaysian toward Islamic banking products. This study also found out the relationship of Islamic banking products and the financial literacy in Malaysia.

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ABSTRACT

This research is aimed to investigate the intention to use Islamic banking products among Malaysians. The study examines the intention to use Islamic banking product by included the independent variables of attitude, epistemic value, perceived behavioural control, religiosity and subjective and social norm. The target respondent that included in this research project are all the Malaysia which are 18 years old and above with a total number of 400 sets of survey questionnaire. SmartPLS 3 is used to assist in our data analysis which had along with the discriminant validity, significant of variables, bootstrapping as well as the reliability test. The research project result concluded the independent variables towards the intention to use Islamic banking products among the Malaysian which are 18 years old and above. Some limitation and suggestions are included in the study to provide better idea for future researchers and even Islamic bank in Malaysia to enhance the intention of Malaysian in using Islamic banking product in Malaysia.

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CHAPTER 1: RESEARCH OVERVIEW

1.1 Introduction

The development of Islamic banking in Malaysia will be discussed in detail in chapter one. General and specific objectives, research questions and hypothesis are studied in this research. Moreover, the exploratory research will also be discussed in the chapter layout.

1.2 Research Background

1.2.1 Development of Islamic Banking in Malaysia

Shariah-compliant finance in Malaysia has increased. Here comes the implementation to develop a comprehensive financial industry in Malaysia. Islamic savings institution, as known as Pilgrims Management and Fund Board (Lembaga Tabung Haji), the history of Islamic banking began in 1963 in Malaysia. The introduction of the Islamic bank established on the foundation of the Islamic Banking Act 1983 allowed the conventional banking institutions to offer banking products and services according to Shariah principles. This act made sure the Islamic banking industry grows rapidly and further facilitated creating a dual-financial system. Conventional banking and the financial system operate alongside the Islamic banking and financial system.

Islamic interbank money market launch in 1994, the Islamic banking and financial industry continued to flourish, and the *takaful* companies were incorporated under the Takaful Act 1984. The year 1990 marked a notable milestone for the Malaysian Islamic banking and financial industry as the first *sukuk* was issued by a foreign-owned company. In 2004, the first foreign Islamic banking institution entered Malaysia. While in the year 2008, Malaysian banking institutions incorporated their Islamic banking subsidiaries with foreign banks. In 2006, MIFC launched Malaysia as an international Islamic financial hub, especially within the Asian region, to foster Islamic banking and financial services. Additionally, on 22 March 2013, Malaysia enacted the Islamic Financial Services Act 2013 (IFSA 2013) to provide for the regulation and supervision of the Islamic financial institutions and other relevant entities to oversee the Islamic foreign exchange market and promote financial stability and compliance with the Shariah law. Moreover, Islamic banking products included services itself as the ideas are based on Islamic law's permissible principles of sale or exchange, profit sharing, savings, trusts, and guarantees. For example, when someone enters into a Murabahah contract with any party, Islamic bank actually delivers and facilitates the contract both in the form of product as well as the service to the customers. Up until now, there are 17 local and 5 international Islamic banks operating in Malaysia.

Over the years, as the multilateral banking and financial institutions and Shariah-compliant products gradually increase, Malaysia's Islamic capital market has grown deeper and broader as Malaysia continues to strengthen the global Islamic banking industry.

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1.3 Problem Statement

The recent global financial crises were not only trying to get rid of the appropriate execution on the conventional banking, but also increased the attention to the Islamic banking and financial services. Malaysia is the country that not only develops commercial banking products but also the Islamic banking and financial services as well.

However, several studies found that the development of Malaysia's Islamic banking and financial institutions still faces some **challenges**. According to Shabbir and Rehman (2019), there are few layers of misconceptions consumers having nowadays towards Islamic banking. The first one would be, for the layman who does not own any account in interest-bearing and non-interest-bearing financial institutions, they would have thought that Islamic banks are prohibited without any theoretical and practical evidence. Apart from that, the consumers who deal with Islamic banking would always have a misconception about the mechanics and product structure either on the liability or the asset side. According to Echchabi and Olaniyi (2012), the research shows that the criterion of Malaysian in Islamic reputation is followed by the quality of services offers, Islamic working environment and appearance and the competence and knowledge of the personnel of the Islamic bank. Other than that, according to the research of Dusuki and Abdullah (2007), the awareness of Malaysian towards the Islamic banking industries is low, and this had become one of the challenges in the development of Islamic banking in Malaysia. Apart from that, according to Fahmy and Yusof (2008), compared to a conventional bank, Malaysia think that Islamic bank only involves minimum effort in marketing their products. It is just a change in the name of conventional banking as they argue the interest rate is just the same as conventional banking and only

converted to the profit rate in Islamic banking. Due to the above challenges, it is necessary to understand the behaviour of Muslims and non-Muslim in Malaysian and also to gain a deeper understanding of the adoption of Islamic banking products among Malaysian as Islamic banking contains an important position in the financial sector of Malaysia.

1.4 Research Objectives

1.4.1 General Objective

This study is to investigate the intention to use Islamic banking products and perceived impact of financial inclusion in Malaysia.

1.4.2 Specific Objectives

1. To examine whether the attitude affects the intention to use Islamic banking products.
2. To examine whether the subjective and social norms affect the intention to use Islamic banking products.
3. To examine whether the perceived behavioural control affects the intention to use Islamic banking products.
4. To examine whether the epistemic value affects the intention to use Islamic banking products.

5. To examine whether the religiosity affects the intention to use Islamic banking products.

6. To identify how Islamic banking products perceived to enhance financial inclusion.

1.5 Research Question

In this research, these are some related questions going to be answered with data collected in Malaysia.

1. Does attitude affect the intention to use Islamic banking products?

2. Do subjective and social norms affect the intention to use Islamic banking products?

3. Does perceived behavioural control affect the intention to use Islamic banking products?

4. Does epistemic value affect the intention to use Islamic banking products?

5. Does religiosity affect the intention to use Islamic banking products?

6. How does Islamic banking products perceived to enhance financial inclusion?

1.6 Significance of Study

The Islamic banking sector in Malaysia has been rapidly growing, and it is now one of the world's leading Islamic banking players. The growth and development of Islamic banking in Malaysia rely on the contribution of industry players and the government and consumers. There are a few advantages to understand the intention of Malaysians to use Islamic banking products in Malaysia.

First of all, according to existing financial, legal foundations, such as the Financial Services Act 2013 and the Islamic Financial Services Act 2013, Bank Negara Malaysia provides a legal framework and supervision with the goals of gaining recognition for the Islamic banking system that operates alongside conventional banks, as well as furthering the development of Islamic banking in Malaysia. Therefore, this research could be an important reference for the government in developing more effective incentives and regulations for the growth of Islamic banking in Malaysia.

Besides, Islamic banking industry players could understand consumer behaviour and opinion towards Islamic products more deeply. Hence, Islamic banking institutions can further increase their competitive advantage in the industry by developing new market strategies and improving Islamic banking products and market share.

Moreover, it would be useful for these banks and financial institutions considering opening an Islamic banking operation in the country with most Muslims to measure the potential customer base's intention to use Islamic banking products. Islamic banking products can also be considered to be offered as alternatives to non-Muslim clients.

With the support from the Malaysian government and the contribution of Islamic banking industry players, it is believed that the number of consumers for Islamic banking among Muslims and non-Muslims in Malaysia will increase drastically. Therefore, the Islamic banking sector in Malaysia will continue to grow and develop while contributing to the country's economic growth. It is also important to help address the sustainable development goals (SDG) financing

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gap in the country, given the principles of Islamic banking that support social inclusion and development-promoting activities.

1.7 Chapter Layout

There are five chapters in this research, with the summary each chapter as follows:

Chapter One

Chapter one has brief explanation on the outline of this research paper, including research background, problem statement and the objectives. Besides, there is also the significance of study, chapter layout for the whole research and the summary for Chapter 1.

Chapter Two

Chapter two shows the relationships between the independent variables with the dependent variable. In addition, this chapter also consists of theoretical framework and literature review of the topic.

Chapter Three

Chapter three explains the research design, data collection method and sampling design for this research. Moreover, it also includes research instruments, construction management, data procedures and analysis.

Chapter Four

Chapter four discusses about data analysis for the data collected from the survey. The data is used to run several tests to show the relationships between the

independent variables and the dependent variable. There is also an inferential analysis derived from the results.

Chapter Five

Chapter five is about the conclusion of this research. It includes the limitations of conducting the research, and some recommendations for future research on similar topics.

1.8 Summary

In conclusion, this chapter introduces the Islamic banking background, problem statement, research objectives and questions of the research. Besides, it also discusses the significance of study and stated the summary for all chapters.

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CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

Within the chapter, there are discussions relating the dependent variable and the
independent variables that form the integral component for this research. We
will be digging deeply into previous studies to review and justify the
independent variables (attitude, subjective and social norms, perceived
behavioural control, epistemic value, religiosity) and the dependent variable
(intention to use Islamic banking products in Malaysia) of this research. A
detailed explanation on each of the variables aforementioned will be shown
below.

2.2 Review of Literature

Over the past few decades, Islamic banking has been one of the industries with
the most rapid growth rate and has spread to all the places over the earth and
received wide acceptance by both Islamic and non-Islamic countries and their
citizens (Iqbal & Molyneux, 2005). For instance, Malaysia is deemed as one of
the leaders in the Islamic banking industry where Islam is the official religion
of the country and majority citizens of Malaysia are Muslim. Hence, this chapter
aims to determine each and every relationship of the determinants with the
intention to use Islamic banking products in Malaysia to obtain a better
understanding on how Malaysians regardless of Muslims or non-Muslims
intend to pursue the use of Islamic banking products.

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2.2.1 Intention to Use Islamic Banking Products (Dependent Variable)

Intention is what someone intends to do or a determination to act in a certain way. An intention is important because the stronger the intention, the higher the probability of a behaviour will be performed or acted (Ganesan, Allah Pitchay, & Mohd Nasser, 2020). According to Kleijnen et al. (2004), the utility aspects such as the perceived usefulness are usually the strongest indicators for the intention to adopt something whilst the usability aspects with the example of perceived ease of use are shown with mixed results. A few studies carried out by Lin (2011) demonstrated that the utility attributes, personal factors, external forces, and demographics could all influence the intention of adoption, while none of the studies address the religious or cultural issues. The circumstance regarding the intention to use Islamic banking in Malaysia is shown in the examples below. For instance, El Qorchi (2005) stated that Malaysia is one of the few countries that have a stable market environment for Islamic banking alongside the wide distribution of the conventional banking system. Besides, according to the World Islamic Banking Competitiveness Report (2016), the Muslim countries have a significant share of banking industries occupied by Islamic banking: Malaysia with 21.3%, UAE with 21.6%, Qatar with 25.8%, and Saudi Arabia with 51.2%.

2.2.2.1 Attitude

Attitude is a mental position, a feeling or an emotion of a person toward a fact or state. According to Amin et al. (2017), attitude is an important indicator when

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assessing a particular situation as it will influence the action of a person on a certain behavioural intention. It indicates that the better attitude of an individual towards the Islamic banking, the greater the intention of that individual trying to adopt the Islamic banking products. Another research by Amin et al. (2013) even recognised attitude as the most critical factor to explain one's intention to adopt Islamic banking products. Besides, Mansour et al. (2016) also concluded that attitude has been a relevant factor for contributing to the formation of customers' behavioural intention. A study conducted by Lada et al. (2009) has proved that attitude significantly affecting the will of using Islamic banking products. Moreover, Lajuni et al. (2017) discovered that attitude and the intention to use Islamic banking products are positively related.

2.2.2.2 Subjective and Social Norms

Subjective and social norm is about a person's perception towards the social environment surrounding the behaviour of that particular person. Subjective and social norm can also be defined as the social pressure from friends and people close to an individual that would influence the behaviour or action of that individual. According to Kaawaase and Nalukwago (2017), it was determined that subjective norm had a positively significant relationship with the intention of adopting Islamic banking. This is similar with the research of Gumel et al. (2015) with conclusion that subjective norm was the most influential reason to shape people's intention to use Islamic banking products. Furthermore, Hanudin et al. (2014) concluded that subjective norm as an important factor towards the consumer action of accepting Islamic banking products. Amin et al. (2011) also found that social influence was one of the main contributors to a consumer's decision to choose Islamic banks. In contrary, Lujja et al. (2016) did not manage

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to prove a significant relationship to link subjective norm to the intention of
Ugandan bank customers to adopt Islamic banking products.

2.2.2.3 Perceived Behavioural Control

The perceived behavioural control (PBC) is defined as a person's perception on
the level of difficulty to perform a behaviour (Ajzen, 1991). The perception will
intensify when a person realises that he/she possesses more resources and
confidence to perform a particular behaviour (Ajzen, 1985). According to
Nursalwani and Zulariff (2017), although having a positive attitude towards a
behaviour, an individual is most likely said to have little intention to perform
the behaviour if they are not confident or do not have any resources to
accomplish it. Moreover, a study by Amin et al. (2014) concluded that PBC
could influence the intention of accepting Islamic banking products. According
to Echchabi and Aziz (2012), it was found that PBC significantly impacting the
will to join Islamic banking in Morocco. Both studies by Alam et al. (2012) and
Amin et al. (2012) indicated the PBC's positive and significant relationship with
the intention to use Islamic banking products named *Musharakah-Mutanaqisah*
(home financing).

2.2.2.4 Epistemic Value

Epistemic value is related to the perceived utility acquired from an alternative's
capability to spark curiosity for new experience (Sheth et al., 1991; Hung &
Hsieh, 2010). Epistemic value is usually related to a customer's curiosity or the
desire to learn something novel, especially when purchasing a newly released

product. Tang and Forster (2007) identified epistemic value as the variety-seeking behaviour from consumers. Evidently, they found out that the epistemic value provides better predictions than the functional and social values in terms of customer adoption. Besides, the epistemic value was also determined to have positive influence towards consumer choice in a study by Lin et al. (2012). Mohd Suki (2016) confirmed that the distinctive and novel features of products are the factors influencing the consumption decisions of consumers towards certain products. This is because not only the novelty-seeking behaviour can help in improving the knowledge database, but it can also create the problem-solving skills arsenal for an individual, therefore affecting his/her decision for the product consumption (Biswas & Roy, 2015; Lin & Huang, 2012). According to a study from Goh, Mohd Suki, and Fam (2014), epistemic value such as high curiosity on adopting new technologies and keeping up with the latest product and technology trends in the non-Muslim community are less influential as compared to the situations among the Muslim consumers.

2.2.2.5 Religiosity

Religiosity is defined as the religious feeling or devotion of a person. Numerous empirical studies stated that religious belief is vital in the action of adopting Islamic banking and its offered products and services. Khattak (2010) said that religion is the primary factor prompting a person to adopt Islamic banking, followed by the transaction efficiency, transaction confidentiality and working hours of banks. Besides, study carried out by Khan and Ashgar (2012) pointed out that religious motive and obedience to the Islamic teachings act as the main standards of customers when choosing Islamic banks. There was a study that figured out religious motivation not being the main criteria but just merely representing one of the few criteria in selecting Islamic banking (Rustam, Bibi,

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Zaman, & Ul-Haq, 2011). Apart from that, Echchabi and Olaniyi (2012) documented that religious motivation of the customers helped fuel the action of choosing Islamic bank. On the opposite, Hanudin et al. (2011) had a different view on the attitude of customers towards the pursuing of Islamic banking products. It was believed that religious belief does not pose significant impact to the intention of someone adopting Islamic banking products.

2.3 Review of Relevant Theoretical Models

2.3.1 Consumer Choice Behaviour Model

Consumer Choice Behaviour model was proposed by Sheth et al. This theory is formed by incorporating the theoretical framework of marketing, economics, sociology, psychology and consumer behaviour. It consists of five important variables as shown in the figure below (Sheth et al, 1991).
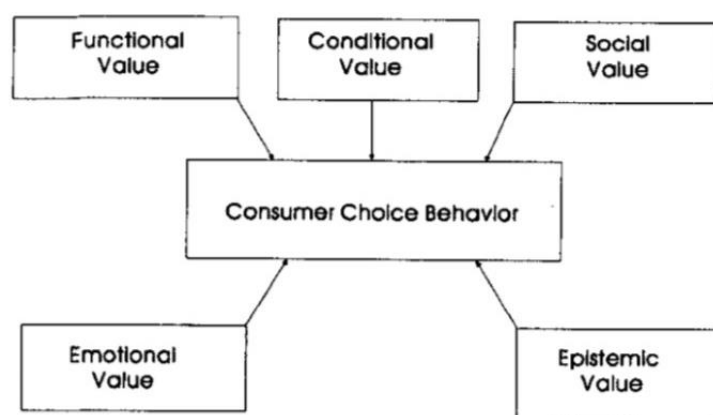
Figure 2.3.1: Consumer Choice Behaviour Model

Source: Sheth et al (1991)

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First, the customer' perceived utility of the substitute's performance, function, and utilitarian is classifying as functional value. Second, conditional value represents the customer's perceived utility when certain conditions or situations occur. Besides, social value is expressed as the customer's perceived utility when they are associated with a specific social group. Moreover, emotional values refer to the feeling of users for something, which means that consumers will tend to use a product or service continuously when they have more positive emotions for that certain product and are willing to maintain this feeling. Lastly, epistemic values refer to the curiosity caused by alternatives and it believes that consumers are seeking novelty and diversity (Sheth et al, 1991).

Furthermore, Tiong, Suki and Kim (2014) also stated that this model provides certain firms with a better understanding of the different adoption characteristics between Islamic and non-Islamic users. Moreover, they also found that customers are more likely to consider belonging, convenience, social status, society, work and lifestyle factors, speed, productivity, safety, and reliability when adopting Islamic mobile banking. Lastly, consumers' curiosity and desire to try new things seem to bring the consumers up (Tiong, Suki & Kim, 2014).

2.3.2 Theory of Planned Behaviour (TPB)

Icek Ajzen derived the TPB through Fishbein and Ajzen's Rational Action Theory (TRA), which is used to predict people's behaviour. Besides, TPB also believes that intention mainly determines behaviour, while perceptual behaviour control only determines behaviour in a few situations (Ajzen, 1991; Kan & Fabrigar, 2017).

As shown in the figure below, there are 3 important variables that will affect the intention. First, attitude towards a behaviour refers to a person's positive or negative feelings about the result of performing an action. Besides, subjective norms represent the social pressure of the social environment around consumers, which will affect consumers' decisions to participate in specific behaviours. Lastly, perceived behavioural control refers to the consumer's feeling of whether it is easy or difficult to perform a particular behaviour (Ajzen, 1991).
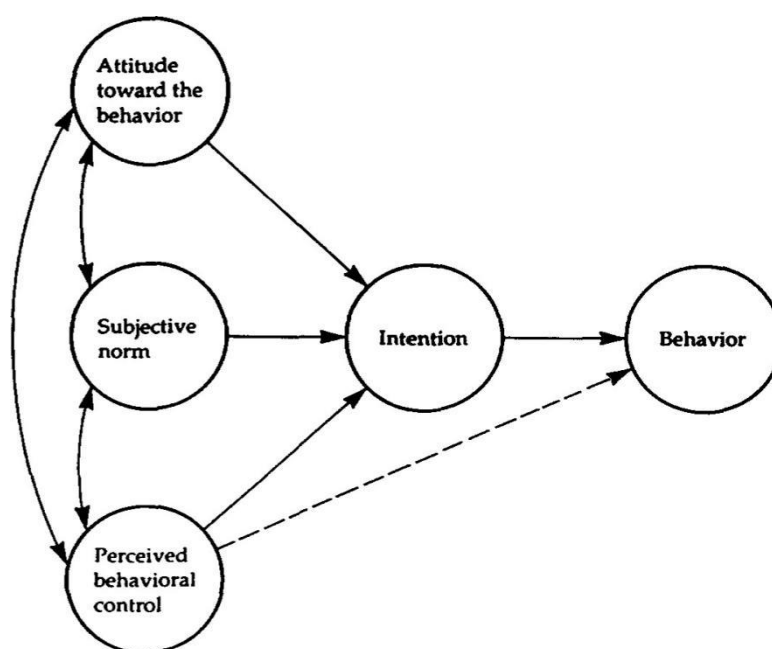
Figure 2.3.2: Theory of Planned Behaviour

Source: Ajzen (1991)

Through study by Ganesan, Allah Pitchay, and Mohd Nasser (2020), all the variables in TPB have a significant and positive impact on the willingness of Malaysian Islamic banking consumers to learn Islamic banking. Therefore, the success of their research can support other researchers who focus on Islamic banking or finance in adopting the idea of TPB in their research.

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2.4 Proposed Research Framework

According to two models in 2.3, some variables have been identified to
significantly explain the intention to use Islamic banking products. To avoids
duplicate variables, social value and subjective norms will be reclassified as
"subjective and social norms" because they are all related to human's perception
of the social environment surrounding them. Besides, since Malaysia is a multi-
racial country, this study also investigates about the relationship between
religiosity and dependent variable. The model below shows the IVs and DV
proposed in this study, and it will be used to determine the relationship between
the intentions of using Islamic banking products among these 5 IVs.

Independent variable   **Dependent variable**
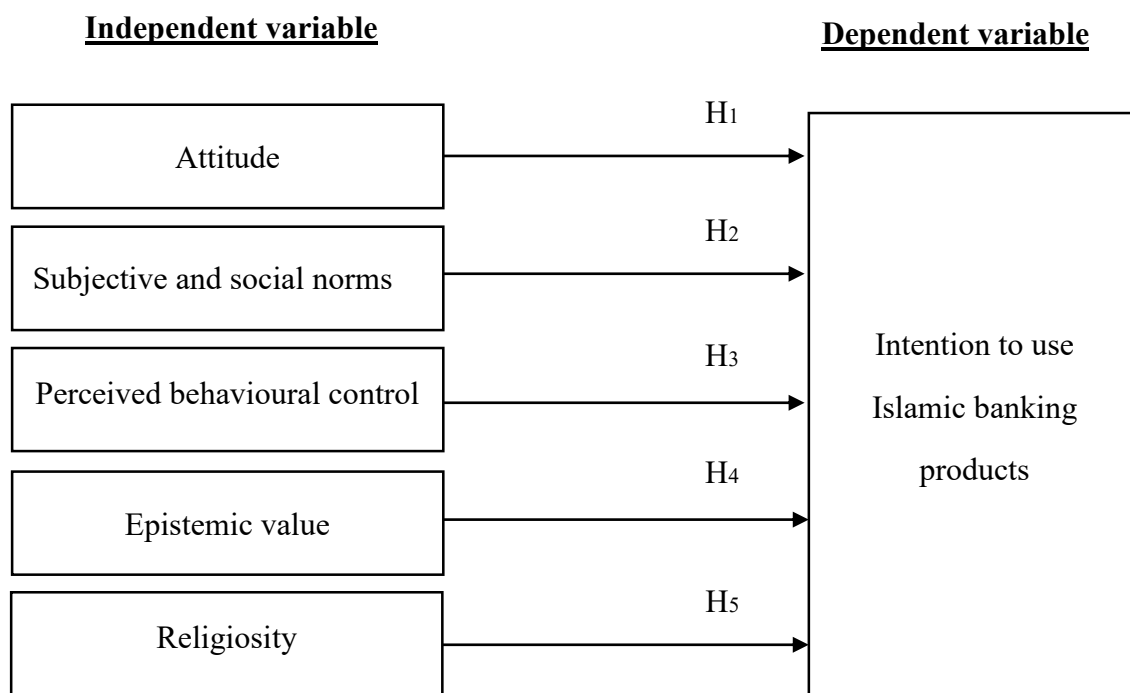
Figure 2.4.1: Proposed model of the factors of intention to use Islamic banking
products

In which:

H_1: There is a significant relationship between attitude and intention to use

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Islamic banking products in Malaysia.

H2: There is a significant relationship between subjective and social norms and intention to use Islamic banking products in Malaysia.

H3: There is a significant relationship between perceived behavioural control and intention to use Islamic banking products in Malaysia.

H4: There is a significant relationship between epistemic value and intention to use Islamic banking products in Malaysia.

H5: There is a significant relationship between religiosity and intention to use Islamic banking products in Malaysia.

2.5 Hypothesis Development

2.5.1 Attitude

H_{01}: There is no significant relationship between attitude and intention to use Islamic banking products in Malaysia.

H_{A1}: There is a significant relationship between attitude and intention to use Islamic banking products in Malaysia.

Attitude refers to a person's positive or negative feelings towards the intention. (Ganesan, Pitchay, & Nasser, 2019).

2.5.2 Subjective and Social Norms

H_{02}: There is no significant relationship between subjective and social norms and intention to use Islamic banking products in Malaysia.

H_{A2}: There is a significant relationship between subjective and social norms and intention to use Islamic banking products in Malaysia.

Subjective and social norms are key determinants which can be acquired when consumers feel connected to a social group when using something. It related to the consumer's perception of the social environment. In other words, it can be considered as the social pressure influencing consumers on whether should perform a behaviour, such as using Islamic banking (Ganesan, Pitchay, & Nasser, 2019).

2.5.3 Perceived Behavioural Control

H_{03}: There is no significant relationship between perceived behavioural control and intention to use Islamic banking products in Malaysia.

H_{A3}: There is a significant relationship between perceived behavioural control and intention to use Islamic banking products in Malaysia.

According to Ajzen (1991), perceived behavioural control is a person's perception on how easy or difficult to perform an action. It enhances when a person notices that he or she gains more confidence. Moreover, Garbarino and Johnson (1999) explained that trust is the customer's confidence in the service quality of banking institutions. In Islamic banking adoption, most studies have reported a positive relation between perceived behavioural control with intention to use Islamic banking (Aziz & Afaq, 2018).

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2.5.4 Epistemic Value

H04: There is no significant relationship between epistemic value and intention
to use Islamic banking products in Malaysia.

HA4: There is a significant relationship between epistemic value and intention
to use Islamic banking products in Malaysia.

Epistemic values are concerned with an alternative's capacity to spark curiosity
in order to provide satisfaction for a consumption experience. Epistemic values
are also seen as the variety-seeking behaviour of consumers (Suki & Fam, 2014).
Thus, it will affect consumers' choices of their banks.

2.5.5 Religiosity

H05: There is no significant relationship between religiosity and intention to use
Islamic banking products in Malaysia.

HA5: There is a significant relationship between religiosity and intention to use
Islamic banking products in Malaysia.

According to Haque, Osman, & Ismail (2009), there is a significant and positive
relationship between quality and availability of services, social and religious
perspective and confidence in bank with customers' perception about Islamic
bank.

2.6 Summary

This chapter explains the intention of Malaysians to use Islamic banking, which is supported by some findings and journals. Furthermore, this chapter also discusses the hypothesis development related to the subtopics in chapter 1. In chapter 3, there will be discussion about the research of methodology.

CHAPTER 3: METHODOLOGY

3.1 Introduction

This chapter will describe the research methodology used to perform this study. In short, it will discuss the research design, data collection methods, sampling design, research instruments and construct measurement for this dissertation.

3.2 Research Design

Research design is referred to a structure to plan and conduct a specific study. It includes the procedures of collecting, analysing, interpreting and presenting data of the research study (Creswell & Plano Clark, 2007).

This study is to examine the intention to use Islamic banking products in Malaysia. Therefore, descriptive research design is more appropriate to be used for this research. It can show a clear phenomenon of the intention to use Islamic banking products in Malaysia.

In addition, quantitative method will be applied for this research as it can be accurately and precisely measured. Quantitative method is suitable for this situation as it provides a better perspective for making critical decisions. The insights derived from hard digital data and analysis have proven to be very effective in decision making. Thus, this research will use quantitative method which is suitable for survey questionnaire. Analysis of the data will be done after the data collected from the distribution of the questionnaires.

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3.3 Data Collection Methods

Primary data collection and secondary data collection are the two most common
types of data collection methods. (Ajayi, 2017). Both types of data enable the
researchers to conduct hypothesis testing. After sufficient data has been
gathered, outcome will then be generated throughout the process. However,
primary data is used for this study.

According to Kabir (2016), primary data is more reliable, authentic and
objective as it has not been altered or changed by human beings, therefore it is
more effective than secondary data. By using primary data method, researchers
have full control over the data collection, including sampling design, target
population and sampling technique. The survey questions will be created by
using Google Forms and distributed via social media platforms such as
Facebook, Microsoft Teams and WhatsApp Messenger.

3.4 Sampling Design

Sampling design is a design for data collection among the population. It includes
targeted population, sampling frame, sampling location, sampling element,
sampling technique, and sampling size.

3.4.1 Targeted Population

The target population is the entire group from which the data is collected. (Kabir, 2016). In order to study the intention to use Islamic banking products in Malaysia, the target population would be Malaysians of 18 years old and above from 13 different states and 1 federal territories, including Malays, Chinese and Indians.

3.4.2 Sampling Frame

For this study, the research sampling frame should be Malaysians who are at least 18 years old. According to the Guardianship of Infants Act 1961, the property of the infant should be controlled and managed by the guardian. Therefore, this study does not include Malaysians under the age of 18, because their property will be kept by the guardian.

3.4.3 Sampling Location

To ensure the data reliability, the sampling location will cover the whole Malaysia. There is a total of 13 states and 1 federal territory, including Johor, Kedah, Kelantan, Melaka, Negeri Sembilan, Pahang, Penang, Perak, Perlis, Selangor, Terengganu, Sabah, Sarawak, and the Federal Territory of Kuala Lumpur.

3.4.4 Sampling Element

A sampling element is a unit that consists of a clearly defined, unique, and identifiable element or group of elements on which observations are made. There are some criteria need to be fulfilled in order to ensure the data is valid.

1. Malaysian citizens

2. Age of at least 18 years old

3.4.5 Sampling Technique

As the target population of the data collection for this study is from whole Malaysia, thus convenience sampling was chosen as the sampling method for this study. Convenience sampling is a non-probability sampling method in which members of the target population could meet certain practical criteria, such as accessibility, proximity in geographic location, availability at a given time, or willingness to participate for research.

3.4.6 Sampling Size

Yamane formula will be used to estimate the appropriate sample size before conducting the survey. As an alternative to the Cochran formula, Yamane suggests using another simplified formula to calculate the sample size in the population, which is called the Yamane formula (Sarmah et al., 2013).

$$n = \frac{N}{1 + N\left(e^2\right)}$$

Based on this, the confidence level will be 95% and p–value equals 0.05. (Sarmah et al., 2013).

According to the Malaysia Population Estimates 2020, the population of citizens in 2020 is 29.7 million ("Current Population Estimates, Malaysia, 2020", 2020). Therefore, by using all the available information, the results of the Yamane formula for this study are shown below:

$$n = \frac{29,700,000}{1 + 29,700,000 \ (0.05)^2}$$
$$n = 399.99 (round \ to \ 400)$$

In which:

N = 29,700,000

Level of precision = 0.05

Thus, the sample size for this research will be 400 respondents.

3.5 Research Instrument

Research instrument is a tool used to collect, measure and analyse data from the participants of the survey questionnaire for this study.

3.5.1 Questionnaire Design

The questionnaire for the research starts with a cover page that includes the research topic and a brief explanation of the purpose to carry out the questionnaire survey. There is also a set of instructions incorporated at the bottom of the cover page to guide the respondents in answering the questions and completing the survey, followed by a Personal Data Protection Statement (PDPA) page. After that, there are 51 questions spanned across Section A to Section H. Section A includes questions regarding demographic information of

the respondents, such as gender, age, religion, etc. It also includes questions for acknowledgement. While for section B is the questions regarding financial inclusion. The subtopics from Section C to Section H are ATD, SOC, PBC, EP, RG and IU (dependent variables). The design for the questionnaire is shown in *Appendix 1*.

3.6 Construct Measurement

Section A includes questions regarding demographic information of the respondents by using nominal, ratio scale and interval scale. For acknowledgment is using 3-point Likert scale (1 = Disagree, 2 = Neutral and 3 = Agree). While the question in section B regarding financial inclusion is applying an interval scale using a 5-point Likert scale (1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, and 5 = Strongly Agree).

For the questions from Section C to Section H, an interval scale is adopted using the 5-point Likert scale to record the degree of content from the respondents towards the questions. The scale of measurement for the questionnaire is shown in *Appendix 2*.

3.7 Data Processing

Researchers usually use data processing before data analysis to ensure data accuracy and data completeness. Figure below shown the steps include in the data processing.

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| Questionnaire checking | → | Editing | → | Coding | → | Classification |

| Data cleaning | ← | Graphical representation | ← | Tabulation |

Figure 3.7.1: The steps in data processing

Source: Sapkota, B. (2017)

First, the researchers should do the **questionnaire checking**, which is aimed to make sure that the respondents understand the questions and are able to answer accordingly. Secondly, the researchers should **edit** the errors in the questionnaire. Then, they need to use the code such as Likert scale for the purpose of **coding** the respondent's feelings and perception levels in numerical form. The 2 types of coding we used in the survey are shown below.

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

Table 3.7.1: 5-Point Likert Scale

Agree	3
Neutral	2
Disagree	1

Table 3.7.2: 3-Point Likert Scale

The **classification** process means that the researchers make quick comparisons and the outcome from the process can be further used for the statistical treatment. Next, researchers should arrange the data and information into the table during the **tabulation** process, so they will be able to display large amount of complex information in an orderly manner. The next step is to do the **graphical**

representation to show the data in a clear view by using bar graph and pie chart. Lastly, researchers should do the **data cleaning** which involves the consistence checking and processing of missing responses. For example, checking the preliminary consistency by using Smart-PLS.

3.8 Data Analysis

3.8.1 Descriptive Analysis

Descriptive analysis provides researchers with a summary of the data collected from respondents in an easy-to-understand way by combining sample summaries with simple graphical analysis. Moreover, the common types of descriptive statistics are measures of central tendency, such as mode, mean and standard deviation (Hayes, 2021). Besides, it will be used in chapter 4 to measure and summarize the data collected in Section A and B of the questionnaire.

3.8.2 Partial Least Squares-Structure Equation Modelling (PLS-SEM)

PLS-SEM is used to predict endogenous variables from multiple exogenous variables. PLS is an SEM technology developed by Wold, which can explain the variability of the endogenous structure to the greatest extent. Furthermore, its operation is very similar to multiple regression analysis (Memon et al., 2021).

Besides, there are only two types of variables in SEM, namely exogenous variables (aka independent variables) and endogenous variables (aka dependent variables). Moreover, it is mainly used in a research environment that has both rich data and theoretical framework (Hair et al., 2014).

3.8.2.1 Outer Loading Analysis

Outer loading analysis provides the researcher with the trajectory of the latent variable to the observed variable. It also shows the absolute contribution of each observable variable to the construction definition (Haenlein & Kaplan, 2004). It enables the researchers to know whether they should eliminate any variables, combine them into one variable, or just develop a higher-order latent variable. The table below show the rules of factor loading.

Factor Loading	Interpretation
< 0.4	Unacceptable
0.4~0.7	Acceptable
>0.7	Preferred

Table 3.8.2.1: Rules of Factor Loading

Source: Wong (2013)

3.8.2.2 Construct Reliability and Validity

Reliability is used to measure whether the structure is consistent or reliable, while validity is used to ensure that the measurement can indeed measure the unobservable construct that the researcher wants to measure. As a summary, when the measurement of a construct is accurate, it means that it is also

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consistent; however, if the measurement of a construct is consistent, it does not
mean that it is also accurate (Bhattacherjee, 2012).

Cronbach's alpha was developed by Lee Cronbach in 1951 (Cronbach's Alpha:
Simple definition, use and Interpretation, 2021). It is an internal consistency
measurement used to construct's measure to determine how close the
relationship between a group of items is (Russo & Stol, 2021). Table 3.8.2.2.1
show the Scale of the Cronbach's alpha.

Cronbach's alpha	Consistency
Negative value	Critical operation error
Below 0.60	Unacceptable
0.60–0.70	Minimally acceptable
0.70–0.80	Respectable
0.80–0.90	Very good
Above 0.90	Strong

Table 3.8.2.2.1: Scale of Cronbach's Alpha

Source: Dakduk, González & Portalanza (2019)

However, Cronbach's Alpha assumes that all indicators have the same reliability,
which does not comply with the principle PLS-SEM algorithm (Wang, Liao &
Yu, 2021). It will seriously underestimate the reliability of the internal
consistency of the latent variables as it is sensitive to the number of scale's items.
Therefore, as support, researchers should also use **Composite Reliability (CR)**
to assuming that all indicators have different loads (Henseler, Ringle &
Sinkovics, 2009). The table below show the interpretation of the CR.

CR	Levels of reliability

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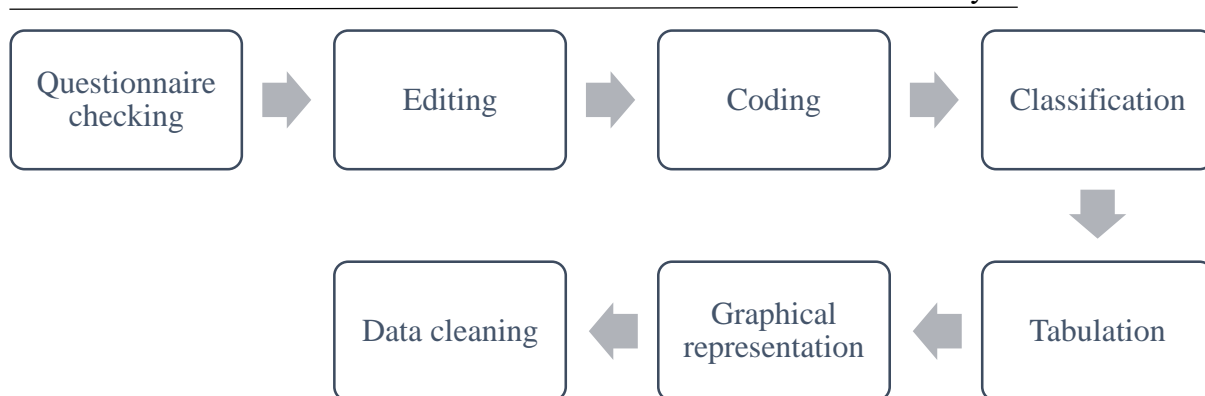Financial Inclusion: A Study to Measure Islamic Financial Literacy in
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Below 0.60	Unacceptable
0.60–0.70	Acceptable
0.70–0.95	Satisfactory
Above 0.95	Problematic, may because of involving redundant indicators.

Table 3.8.2.2.2: Scale of CR

Source: Sarstedt, Ringle, & Hair (2017)

Furthermore, **Average Variance Extracted (AVE)** refers to the total average
of the square loading of a set of indicators (Hair et al., 2014). Besides, Hair et
al (2014) recommended that the AVE value should reach 0.5 or higher for each
item as this indicates that the item has sufficient convergent validity. Moreover,
an AVE of 0.5 or higher also certifies that the construct can explain more than
half of its indicators' variance. Besides, an AVE less than 0.5 is considered
unacceptable because the variance of the error is greater than the explained
variance (Dakduk, González & Portalanza, 2019).

3.8.2.3 Discriminant Validity

Discriminant validity shows how different one construct is from the others. It
can be the degree of relevance to other constructs, or the degree to which the
indicator only clearly represents the single structure (Shah & Rahim, 2019).

First, one of the indicators of discriminant validity used in this research is
Fornell-Larcker Criterion. It takes the $\sqrt{AVE}$ and correlation of latent
constructs to do the comparison. Instead of the differences in other potential
constructs, the potential construct should explain the differences in its own

indicators more. So, this means that the $\sqrt{AVE}$ should be above the correlation of the latent constructs (Ab Hamid et al., 2017).

Moreover, Henseler et al. (2009) suggested to use **Heterotrait-Monotrait Ratio of Correlations (HTMT)** in the research because they found that HTMT can achieve higher specificity and sensitivity of 97 percent to 99 percent, while the Fornell-Larcker Criterion only reaches 20.82 percent. Since the HTMT value close to 1 will be defined as insufficient discriminative validity, Gold et al. suggested that it should be 0.90. Thus, HTMT should be low to satisfy the discriminant validity as the higher the HTMT value, the lower the discriminant validity (Ab Hamid et al., 2017).

3.8.2.4 Collinearity Statistics

The standard error of predictor coefficients will rise if the relationship between the predictors is correlated. Furthermore, an increase in the standard error of the prediction coefficient will lead to an increase in the variance of the prediction coefficient. Therefore, the researcher should adopt **Variance Inflation Factor (VIF)** in order to measure the degree of variance inflated. Besides, VIF enables researchers to determine whether there is a high degree of correlation between IVs. The table below shows the interpretation of the VIF (Daoud, 2017).

VIF	Degree of Correlation
Equal to 1	Not correlated
Between 1 to 5	Moderately correlated
More than 5	Highly correlated; high multicollinearity

Table 3.8.2.4.1: Rules for interpreting VIF

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Modify from: Daoud, J. I. (2017).

3.8.2.5 Bootstrapping

Bootstrapping is represented as a non-parametric resampling technique that enables researchers to analyse statistics of unknown sampling distributions (Gutwin et al, 2017). It is a process of extracting a large amount of sub-samples from the original data and replacing them. Besides, researchers can make a large number of estimates for each model parameter by estimating the model of each subsample (Sarstedt, Ringle, & Hair, 2017). By using the resampling method, bootstrapping enables the researchers to determine the significance of PLS coefficients and the correlation of variables (Garson, 2016). Bootstrapping in this study will be adopted for evaluating the t-statistic, p-value and Path Coefficient.

In this study, **T statistic** will be used to determine the significance of the outer model loadings, because it can be used for both the inner and outer model. In the event that t-statistic is above 1.96, the path coefficient will be significant (Wong, 2013). However, if the t-statistic is very close to 1.96 but less than 1.96, **p-value** is then further used to determine the significance of that variables. Moreover, it is assumed that the exogenous variables are significant to the endogenous variable. Therefore, when the p-value is below the significance level (0.05), the H_0 (known as null hypothesis) will be reject (Bevans, 2020).

Furthermore, the **Path Coefficient** will be used to determine the relationship between the indicators and which indicator has greater impact on the endogenous variables. When other variables in the model remain unchanged,

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the path coefficient refers to the endogenous variable's response when there is a unit change of the exogenous variable (McIntosh & Gonzalez-Lima, 1994).

3.9 Pilot Test Result

A total of 51 questionnaires were distributed to Malaysians through an online form platform known as Google Form. All the data were compiled and entered into Smart PLS 3.0 for analyzing purposes. Among the 51 respondents, the questionnaire forms were equally distributed to 17 male respondents, and 34 sets of questionnaires were distributed to female respondents. Among the 51 questionnaires, respondents had given positive giveback, such as the questionnaire does not touch any sensitivity in religion that may create racism for the multicultural country such as Malaysia. Still, two respondents giving feedback that the sentences that the pilot test had used are confusing and hard to understand. For example, does Maybank consider Islamic banking as Maybank also providing Islamic banking products and services? To improve this, we had added and put a further explanation in our survey to improve the overall questionnaire experience.

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3.9.1 Outer Loading Analysis
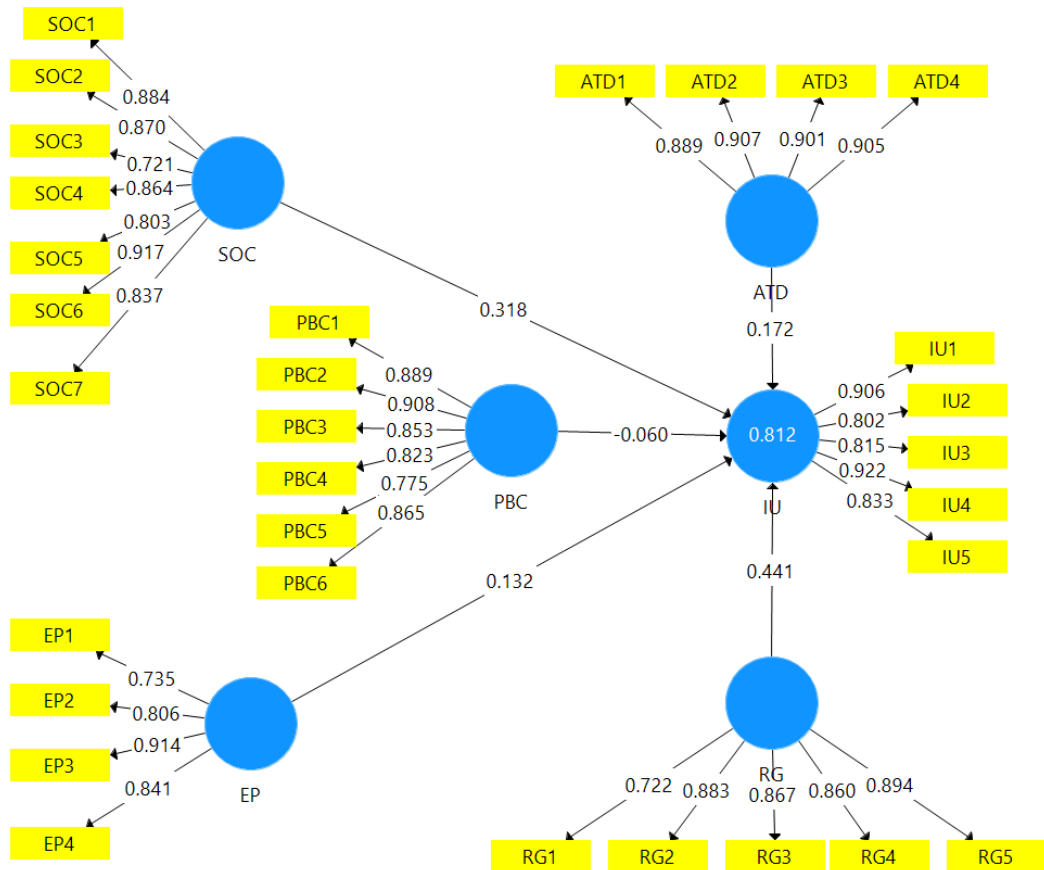
Source: Developed in Research

Figure 3.9.1: Diagram of Outer Loading Analysis

In which:

IU = Intention to use Islamic banking products

ATD = Attitude

SOC = Subjective and social norms

PBC = Perceived behavioural control

EP = Epistemic value

RG = Religiosity

Indicator	AT	EP	IU	PBC	RG	SOC
AT1	0.889					

AT2	0.907				
AT3	0.901				
AT4	0.905				
EP1		0.735			
EP2		0.806			
EP3		0.914			
EP4		0.841			
IU1			0.906		
IU2			0.802		
IU3			0.815		
IU4			0.922		
IU5			0.833		
PBC1				0.889	
PBC2				0.908	
PBC3				0.853	
PBC4				0.823	
PBC5				0.775	
PBC6				0.865	
RG1					0.722
RG2					0.883
RG3					0.867
RG4					0.860
RG5					0.894
SOC1					0.884
SOC2					0.870
SOC3					0.721
SOC4					0.864
SOC5					0.803

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SOC6	0.917
SOC7	0.837

Source: Developed in Research

Table 3.9.1: Outer Loading Result for Pilot Test

In order to evaluate the reliability of the variables, outer loading has been used in this research. The reliability can be considered as internal consistent when the value of the outer loading is higher than 0.7. However, when the value fall between. 0.4 and 0.7, the variables would be considered to be removed from the research. Based on the table shown above, all of the variables shown are higher than 0.7, implying the high satisfaction on the reliability for the data set.

3.9.2 Cronbach's Alpha

Variables	Cronbach's Alpha
Attitude	0.922
Epistemic value	0.844
Intention to use Islamic banking products	0.909
Perceived behavioural control	0.925
Religiosity	0.900
Subjective and social norms	0.932

Source: Developed in Research

Table 3.9.2: Cronbach's Alpha Result for Pilot Test

From the results evaluated from the table above, all of the variable values are above 0.8, indicating a good internal consistency of the reliability. According to Sharma (2016), Cronbach's Alpha was used in the pilot test to evaluate the data

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reliability and the values of Cronbach Alpha within the range of 0.8-0.9 are considered good reliability and the result is therefore acceptable.

3.9.3 Composite Reliability (CR)

Variables	Composite Reliability
Attitude	0.945
Epistemic value	0.895
Intention to use Islamic banking products	0.932
Perceived behavioural control	0.941
Religiosity	0.927
Subjective and social norms	0.945

Source: Developed in Research

Table 3.9.3: Composite Reliability for Pilot Test

The values of the variable that hit above 0.7 indicated that the reliability is being met and it is believed to be consistent and reliable to be used in the model. Based on the results shown in Table 3.9.3, all of the values are above the benchmark of 0.7 and thus, the variables and model are highly satisfactory and possess internal consistency.

3.9.4 Average Variance Extracted (AVE)

Variables	Average Variance Extracted (AVE)
Attitude	0.811
Epistemic value	0.683

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Intention to use Islamic banking products	0.734
Perceived behavioural control	0.728
Religiosity	0.718
Subjective and social norms	0.713

Source: Developed in Research

Table 3.9.4: Average Variance Extracted for Pilot Test

According to the research of Chin (2010), it stated that the indicator has sufficient convergent validity when the value of the AVE is greater than 0.5 and AVE is used to explain the reliability and the convergent validity for the variables of the data set. From the results shown in Table 3.9.4, there is sufficient convergent validity for all variables, as AVE of all variables are above 0.5 and fall in between 0.6 to 0.9.

3.10 Ethical Clearance

The application form has been sent to the Head of Department and coordinator, before further distributing the questionnaire to respondents. The investigation started after obtaining their permission and the ethical approval number was U/SERC/164/2021.

3.11 Summary

Chapter 3 explains all the relevant research methodology that will be used in this research as well as pilot test results. Furthermore, this research is targeted to collect 400 questionnaires in Malaysia through the use of convenience sampling method and the data will be analysed by using SmartPLS software.

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CHAPTER 4: DATA ANALYSIS

4.1 Introduction

Chapter four is about the analysis and interpretation of useful information
generated from the raw data of the questionnaire survey. The descriptive
analysis is used in this chapter to provide a fundamental understanding into the
research topic. The SmartPLS 3 software is used to generate a more in-depth
insight regarding how the 5 independent variables interact with the dependent
variable.

4.2 Participation Rate

This study is conducted using an online form platform known as Google Form
which let us to collect questionnaires regarding people's intention to use Islamic
banking products and the factors affecting the decision. A total of 570
questionnaires is collected during the distribution period and only 400 responses
are usable as the other questionnaires are filtered out due to incompletion.

4.3 Descriptive Analysis

Descriptive analysis is used to describe the basic characteristics of the data such
as the basis background of the sample. It provides a simple summary of the
sample according to their basic characteristics.

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4.3.1 Gender

Figure 4.3.1: Gender

1. Gender

Female
50.25%
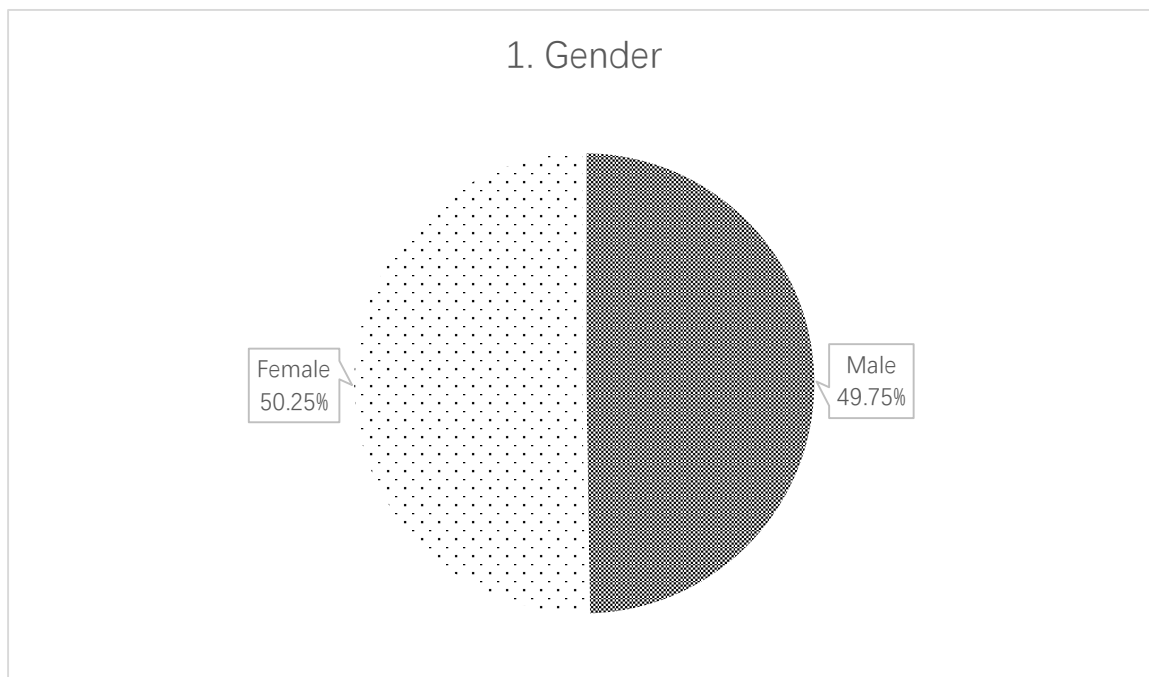
Male
49.75%

Source: Developed in research

Figure 4.3.1 shows the gender of 400 respondents participating in the survey for this research. There are 199 male respondents (49.75%) and 201 female respondents (50.25%) who contribute their opinion for further investigation on this research.

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4.3.2 Age
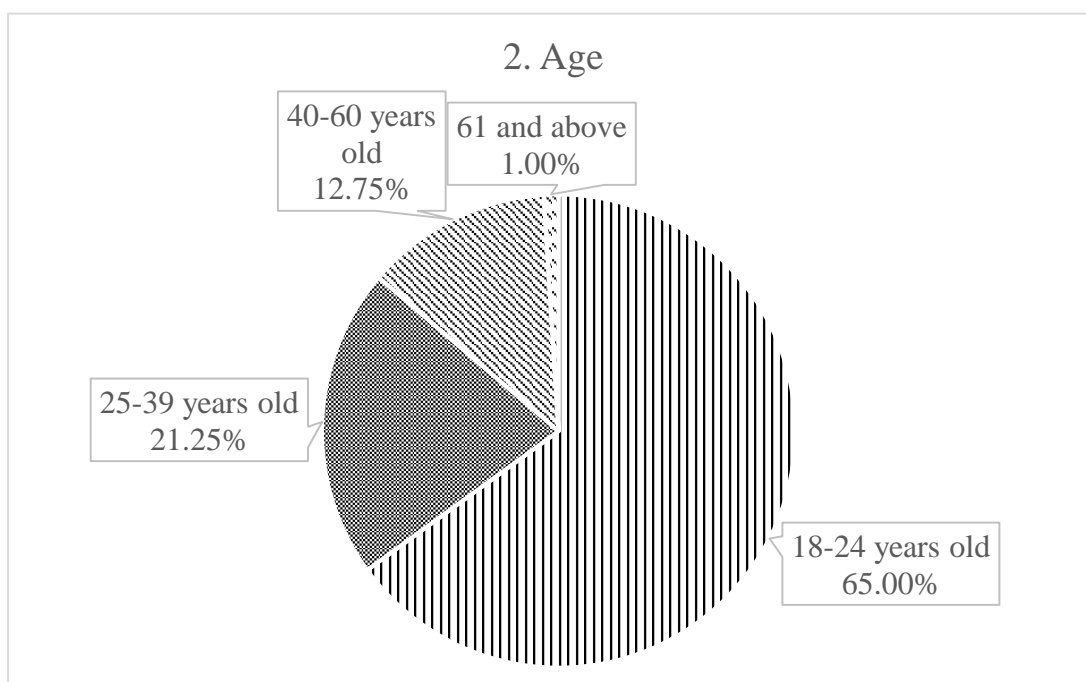
Figure 4.3.2: Age

Source: Developed in research

The proportion of age range of 400 respondents is shown in figure 4.3.2. There
are 260 respondents age between 18-24 (65%) and they form the major age
range among all. Next, there are 85 respondents (21.25%) and 51 respondents
(12.75%) are from the age range of 25-29 years old and 40-60 years old,
respectively. The respondents who are 60 and above have the lowest percentage
by only consisting of 4 respondents (1%).

4.3.3 Cultural Heritage

Figure 4.3.3: Cultural Heritage
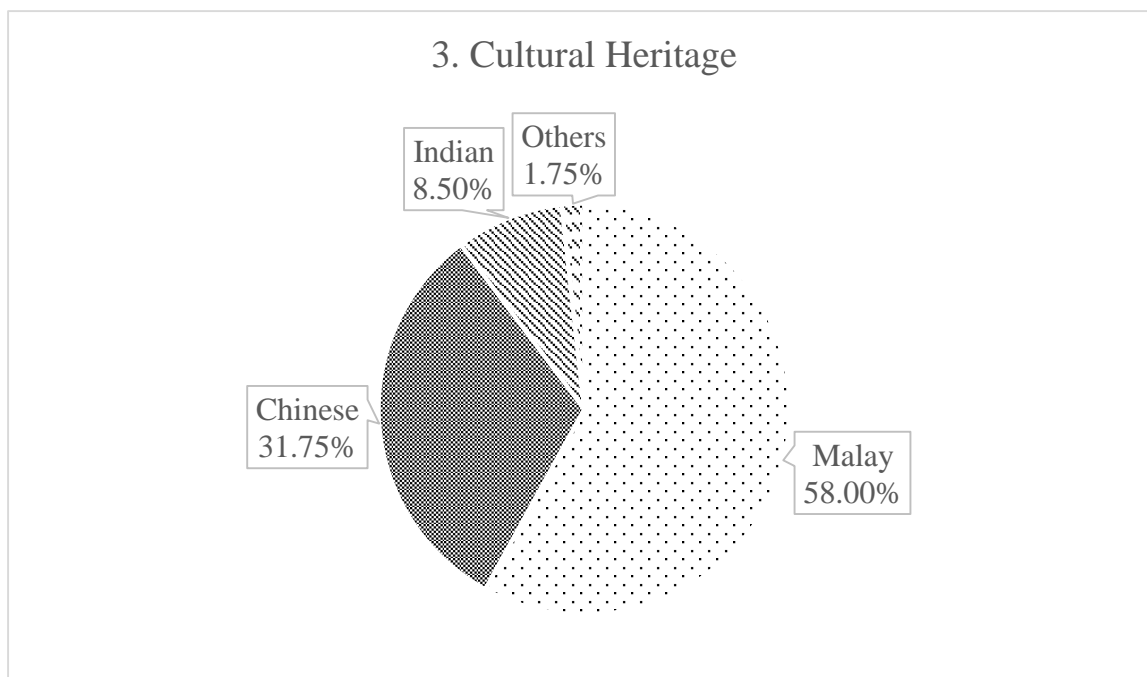
Source: Developed in research

Figure 4.3.3 represents the cultural heritage of the respondents. Malays make up more than half of respondents, which consist of 232 respondents (58%), making it the largest ethnic group. Next, followed by 127 respondents (31.75%) are Chinese and 34 respondents (8.5%) are Indians. Lastly, there are 7 respondents (1.75%) who belong to other ethnicities.

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4.3.4 Education Qualification

Figure 4.3.4: Education Qualification
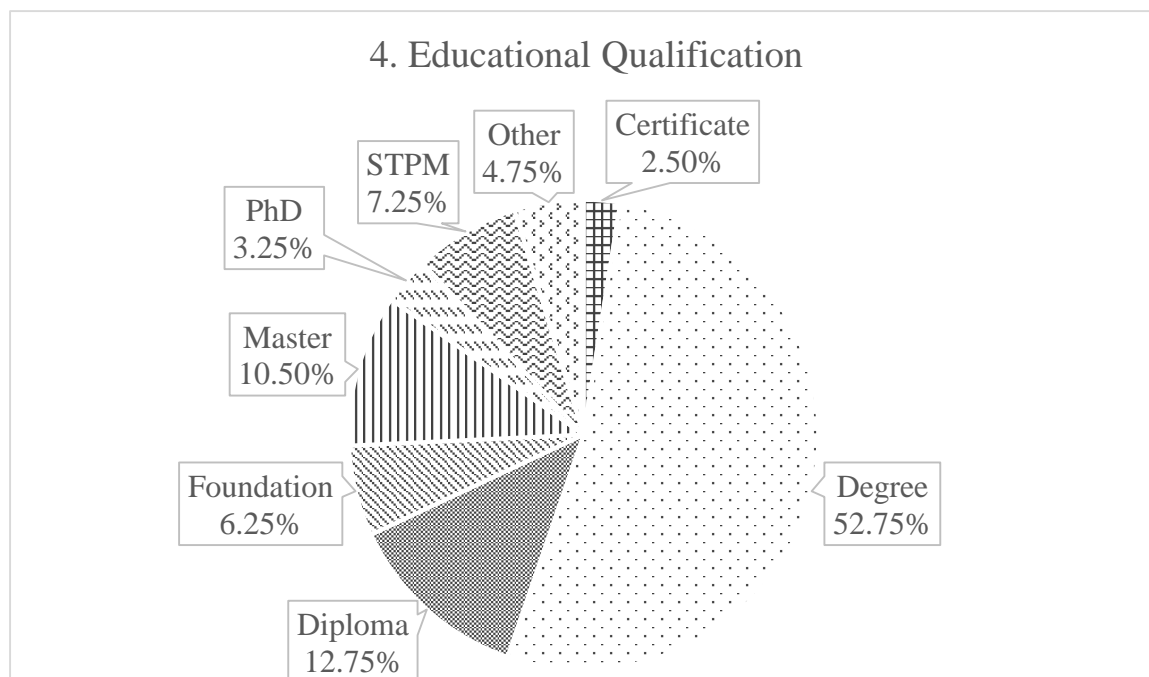
Source: Developed in research

Figure 4.3.4 illustrates the educational qualification for each of 400 respondents. Majority of respondents are Degree holders by contributing 211 responses (52.75%). Next, 51 respondents (12.75%) are Diploma holders, 42 respondents (10.50%) are Master holder and 29 respondents (7.25%) are STPM holders. Next, foundation holder possesses 25 respondents (6.25%), 13 respondents (3.25%) are PhD holders and 10 respondents (2.50%) hold qualified certificates. The others consist of 19 respondents (4.75%) holding A-Level, matriculation, SPM, and UEC certificates.

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4.3.5 Religion

Figure 4.3.5: Religion
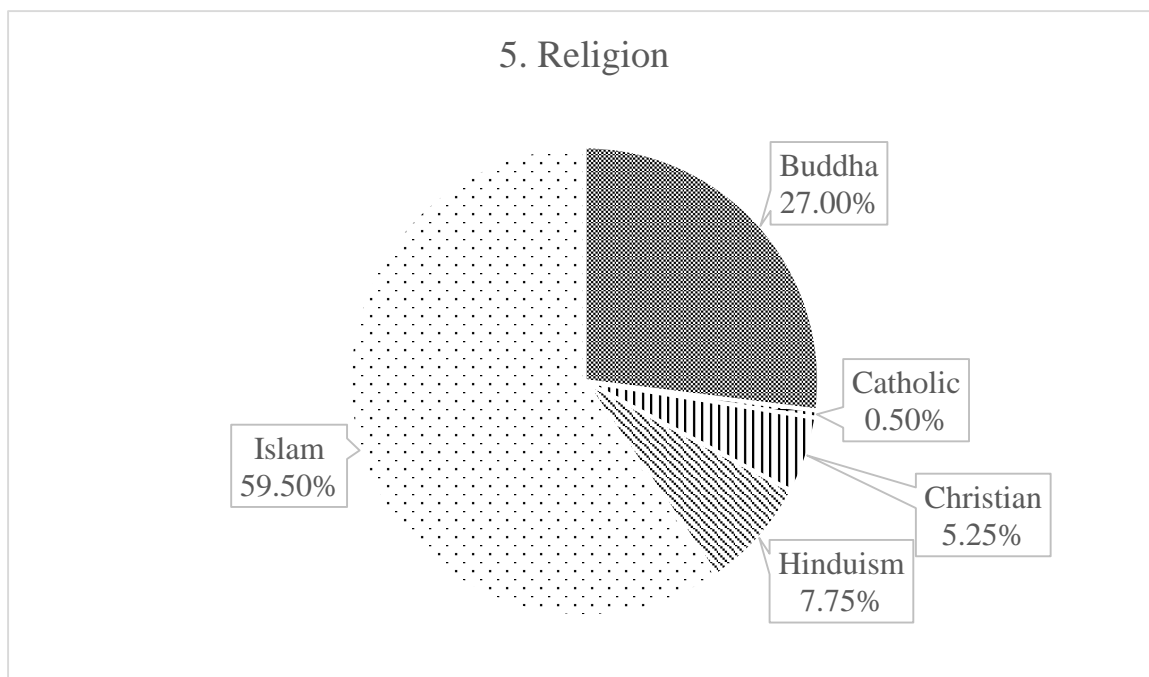
Source: Developed in research

Figure 4.3.5 displays the religion of respondents answering the survey
questionnaire for this research. There are more than half of the respondents (238
respondents) are Muslims, which is about 59.50%. Besides, there are 108
Buddhist respondents (27%), followed by 31 Hindu respondents (7.75%), 21
Christian's respondents (5.25%) and only 2 Catholic respondents (0.50%).

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4.3.6 State

Figure 4.3.6: State
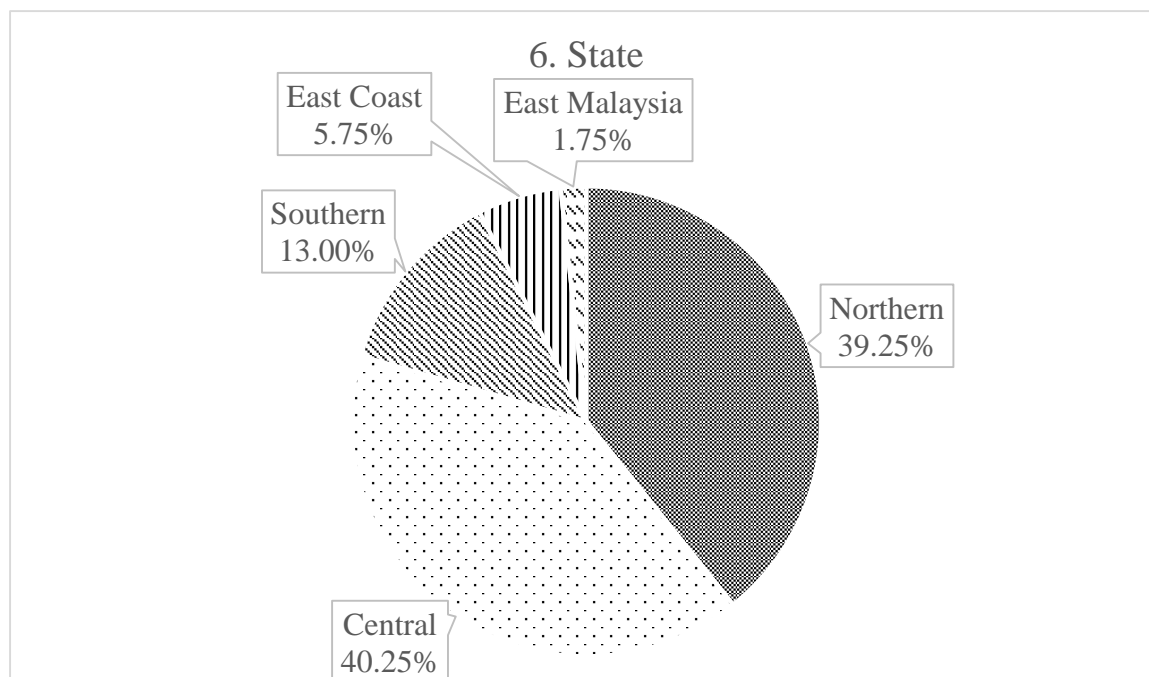
Source: Developed in research

Figure 4.3.6 displays the statistics of the states where the respondents live in, which have been categorized into 5 regions including Northern region (Perlis, Kedah, Penang, Perak), Central region (Selangor, Kuala Lumpur, Negeri Sembilan), Southern region (Melaka, Johor), East Coast region (Pahang, Terengganu, Kelantan) and East Malaysia (Sabah, Sarawak).

Majority of respondents live in Central Malaysia (Selangor, Kuala Lumpur and Negeri Sembilan), with 161 respondents possessing 40.25% of the total. Next, there are 157 respondents (39.25%) live in Northern region of Malaysia. After that, Southern region consists of 52 respondents (13.00%), followed by East Coast and East Malaysia, which has 23 respondents (5.75%) and 7 respondents (1.75%), respectively.

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4.3.7 Employment Status

Figure 4.3.7: Employment Status
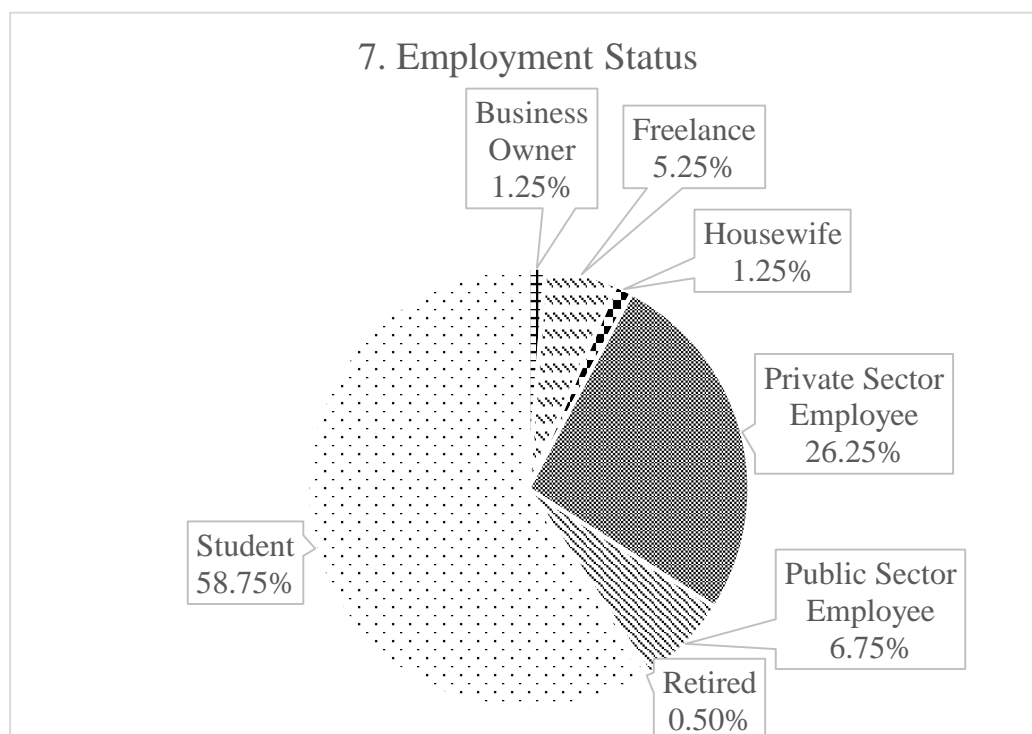
Source: Developed in research

The statistics above are the employment status of 400 respondents. Majority of respondents are students with the frequency of 235 or 58.75% of the total. It is followed by private sector employees with 105 respondents (26.25%) and public sector employees with 27 respondents (6.75%). The business owner and housewife have the same frequency, with 5 respondents (1.25%) each. Lastly, there are 2 respondents (0.50%) who are retirees.

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4.3.8 Monthly allowance/ Salary

Figure 4.3.8: Month allowance/ Salary
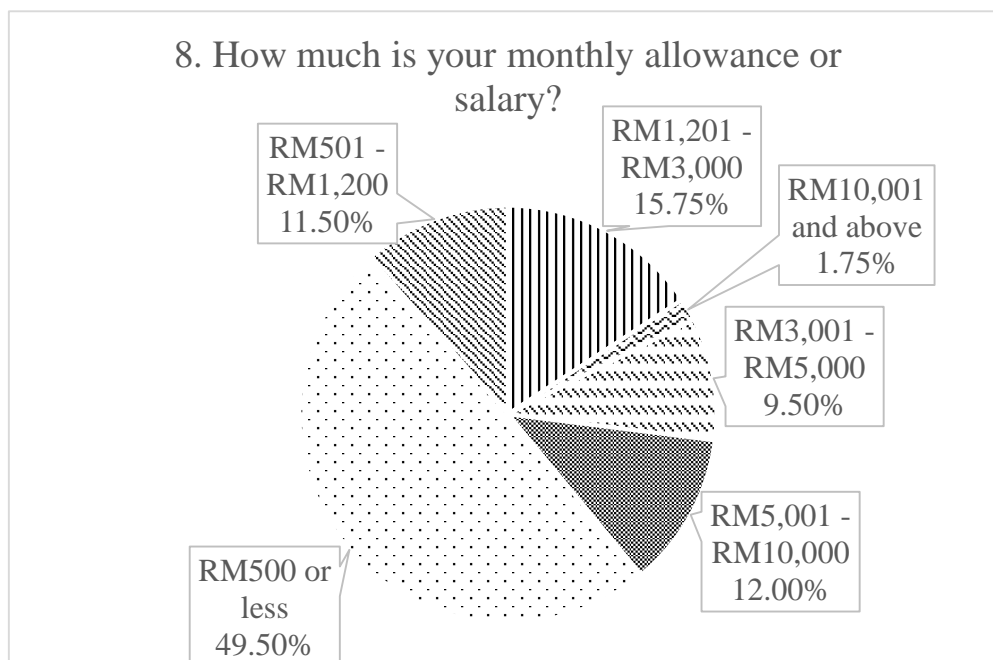
Source: Developed in research

Figure 4.3.8 illustrates the statistics of monthly wages of 400 respondents. Most of the respondents' (198 respondents or 49.50%) monthly wages are less than or equal to RM500. The second highest monthly wages of respondents are between RM1,201-RM3,000, which have 63 respondents (15.75%) among the total. Besides, there are 48 respondents' (12.00%) monthly wages between RM5,000–RM10,000, followed by 46 respondents (11.50%) earn between RM501–RM1,200 and 38 respondents (9.50%) earn between RM3,001–RM5,000. Lastly, there are 7 respondents' (1.75%) monthly wages which exceed RM10,000.

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4.3.9 Do you own an Islamic bank account?

Figure 4.3.9: Do you own an Islamic bank account?
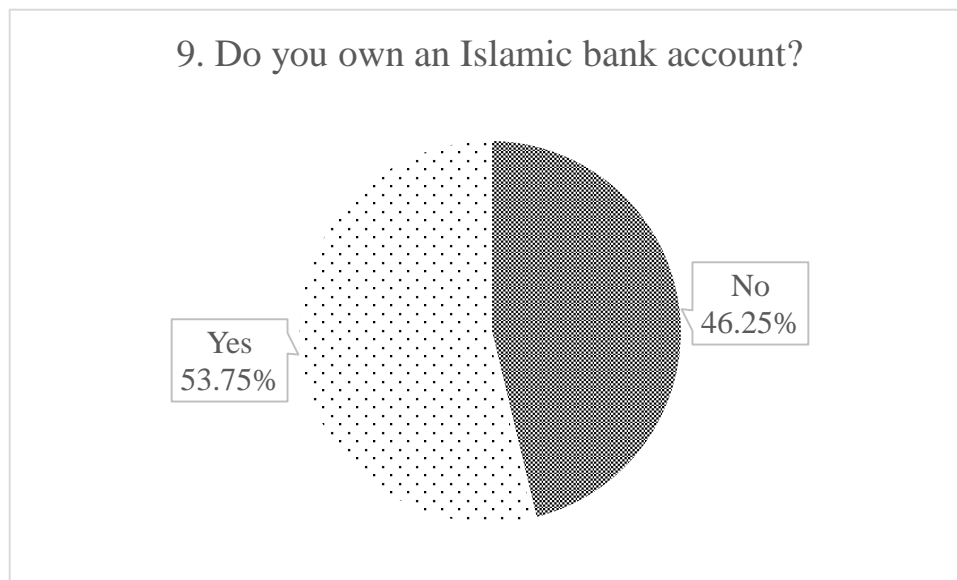
Source: Developed in research

Figure 4.3.9 clearly shows the proportion of respondents who do own an Islamic banking account and who do not. Based on the statistics above, it shows that 215 respondents (53.75%) own an Islamic Bank account. In contrary, there are 185 respondents (46.25%) do not own any account with Islamic bank.

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4.3.10 Which bank would you prefer?

Figure 4.3.10: Which bank would you prefer?
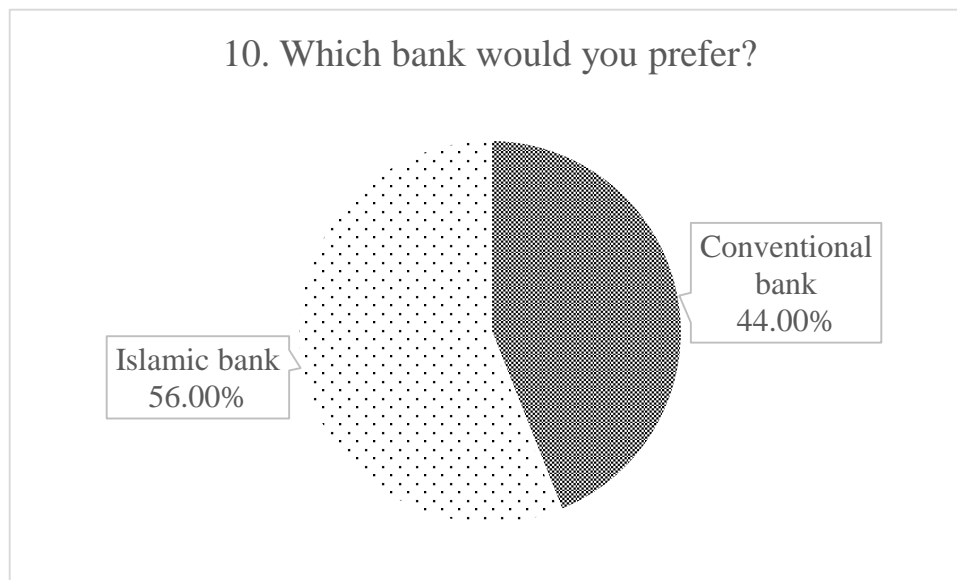
Source: Developed in research

Figure 4.3.10 illustrates the data of the respondents' bank preference between conventional bank and Islamic bank. There are 176 respondents (44%) prefer conventional bank while 224 respondents (56%) prefer Islamic bank. Therefore, Islamic bank is the more preferable bank as seen from these respondents.

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4.3.11 Where did you know about Islamic banking?

Figure 4.3.11: Where did you know about Islamic banking?
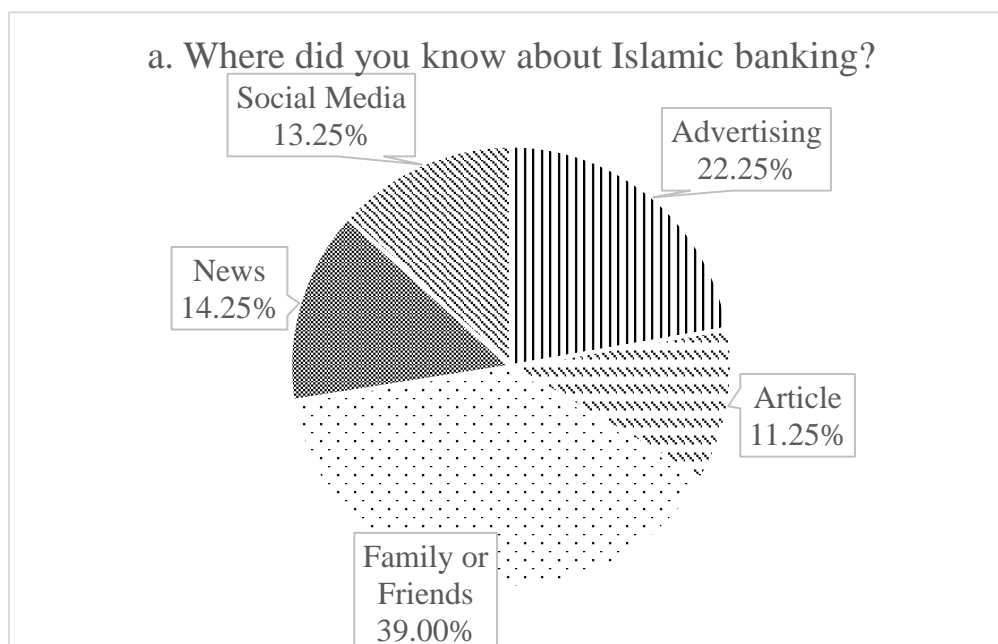
Source: Developed in research

Figure 4.3.11 illustrates from where the respondents get to know about the
Islamic banking. Majority of respondents know about the Islamic banking from
their family and friends, which consist of 156 respondents (39.00%). Next, there
are 89 respondents (22.25%) get the idea of Islamic banking from advertising,
57 respondents (14.25%) knowing from news, 53 respondents (13.25%)
knowing from social media, and 45 respondents (11.25%) knowing from
articles.

4.3.12 Acknowledgement

Figure 4.3.12a: What is the first image that would come to your mind when you think of Islamic banking?
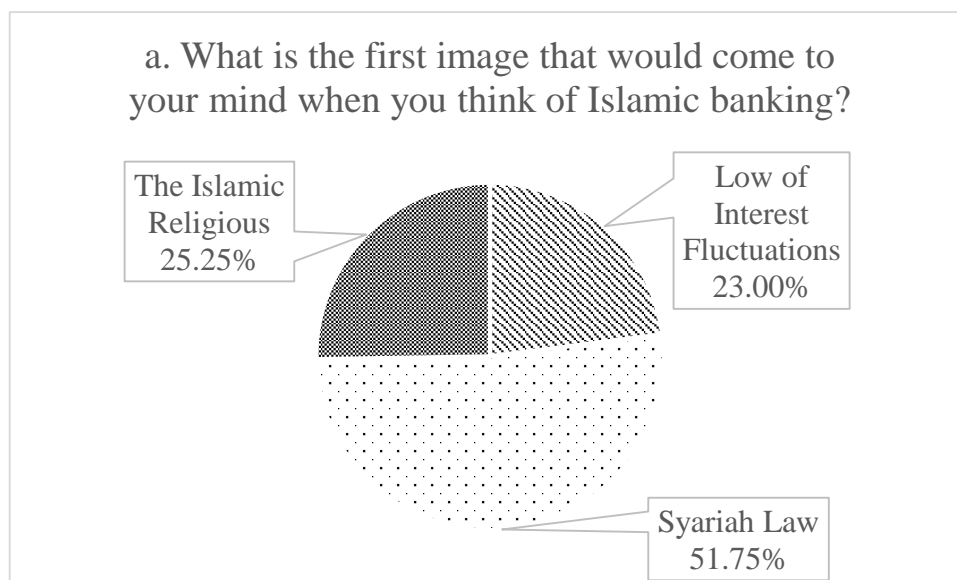
Source: Developed in research

Figure 4.3.12a displays the first image of Islamic banking among respondents, with the choice of low interest fluctuation, Shariah law to the religion of Islam. There are 207 respondents (51.75%) whose first image of Islamic banking is the compliance with Shariah law. Moreover, 101 respondents (25.25%) have first image of Islamic banking related to religion of Islam and 92 respondents (23.00%) whose first image is the low interest fluctuation.

Figure 4.3.12b: Is Malaysia a global leader in Islamic banking.

b. Is Malaysia a global leader in Islamic banking.
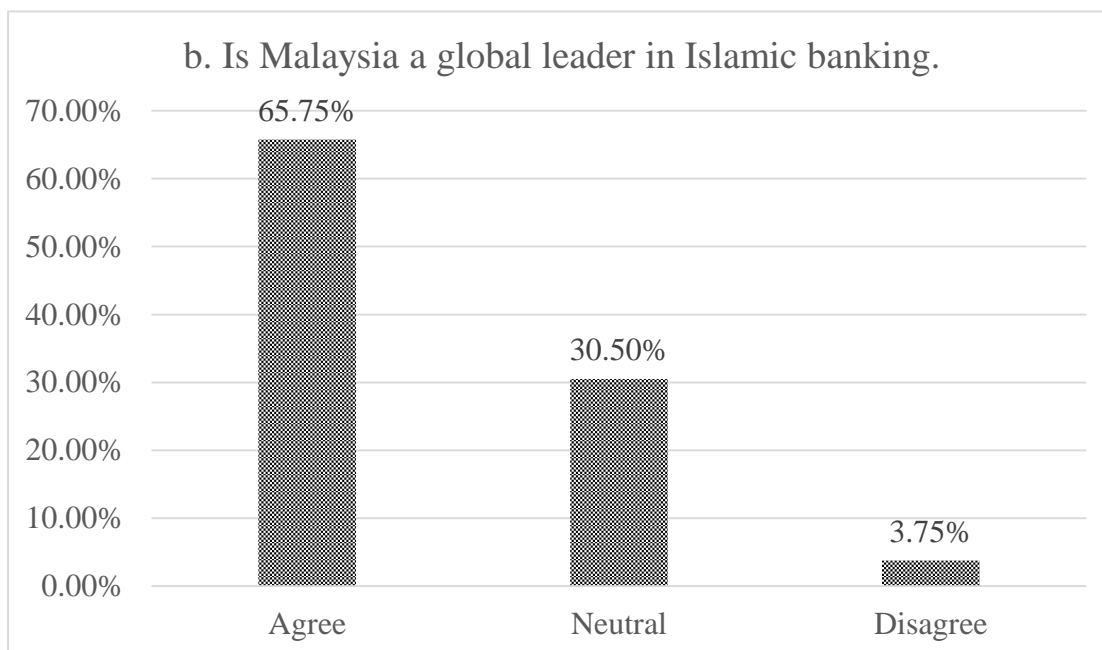
Source: Developed in research

Figure 4.3.12b displays the statement of acknowledgement about Islamic banking. Majority of respondents involving 263 respondents (65.75%) agree that Malaysia is a global leader in Islamic banking. Next, there are 122 respondents (30.50%) remain neutral on this statement while 15 respondents (3.75%) disagree with this statement.

Figure 4.3.12c: Are there differences between Islamic bank and conventional bank?
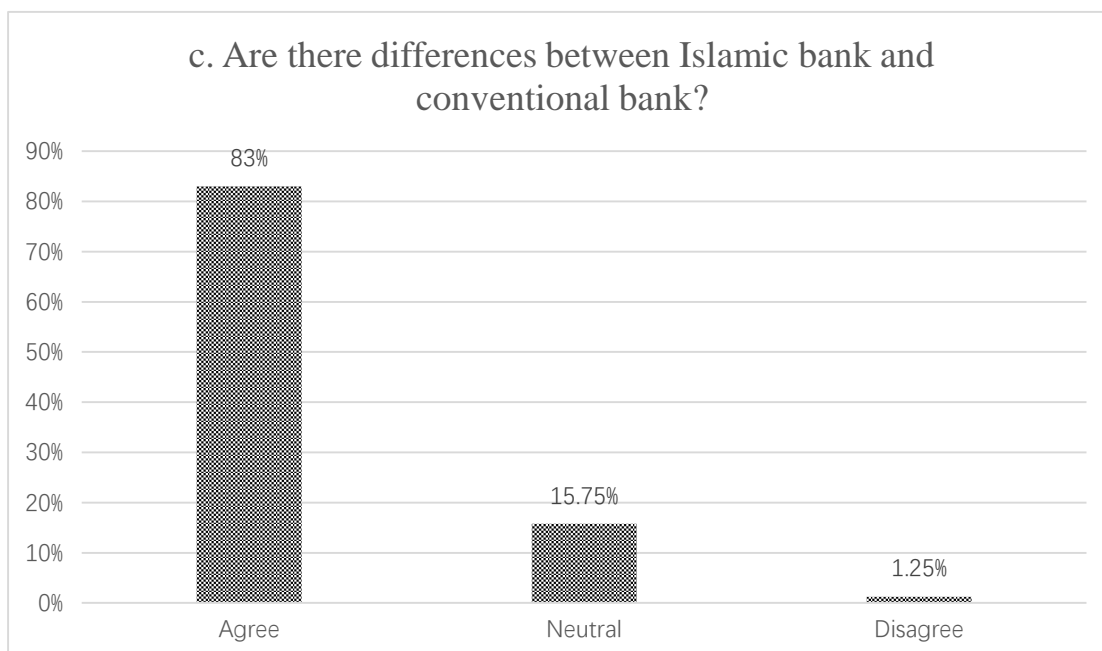
Source: Developed in research

Figure 4.3.12c, it is shown that there are 332 respondents (83%) agree that there are differences between Islamic bank and conventional bank. Next, there are 63 respondents (15.75%) remain neutral on this statement while 5 respondents (1.25%) disagree with this statement.

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4.3.13 Financial Inclusion

Table 4.3.13: Financial Inclusion

Statement	Mean	Standard deviation
FI1: The financial inclusion of Islamic bank had met my needs.	3.6425	0.8315
FI2: The poor telecom connectivity in rural areas is the challenge for me to use Islamic banking.	3.2425	1.0423
FI3: Financial inclusion has a greater effect in reduction in poverty and income inequality.	3.6225	0.7947
FI4: There is financial instability risk in Islamic banking financial inclusion.	3.1425	0.9134
FI5: There is the risk of low supply of financial products in rural area.	3.5150	0.8406
FI6: There is economic instability risk in Islamic banking financial inclusion.	3.1425	0.8912

Source: Developed in research

Table 4.3.13 displays the statistics on the financial inclusion of the 400
respondents, including mean and standard deviation. The highest mean is
3.6425, which belongs to FI1"The financial inclusion of Islamic bank had met
my needs". FI3 "Financial inclusion has a greater effect in reducing poverty and
income inequality", which has a mean of 3.6225, is the second-highest mean.
The third highest mean, with the mean value of 3.5150, belongs to FI5 "There
is the risk of low supply of financial products in rural area". It follows by FI2
"The poor telecom connectivity in rural areas is the challenge for me to use

Islamic banking", which means 3.2425. The lowest mean belongs to FI4, "There is financial instability risk in Islamic banking financial inclusion", and FI6 ", There is economic instability risk in Islamic banking financial inclusion", which have the same mean value of 3.1425. For the standard deviation, FI2 is the highest among all, with a value of 1.0423. The second highest is FI4, with a value of 0.9134. It is followed by FI6 with 0.8912, FI5 with 0.8406 and FI1 with 0.8315. The lowest standard deviation is FI3, with a value of 0.7947.

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4.4 PLS-SEM

4.4.1 Outer Loading Analysis
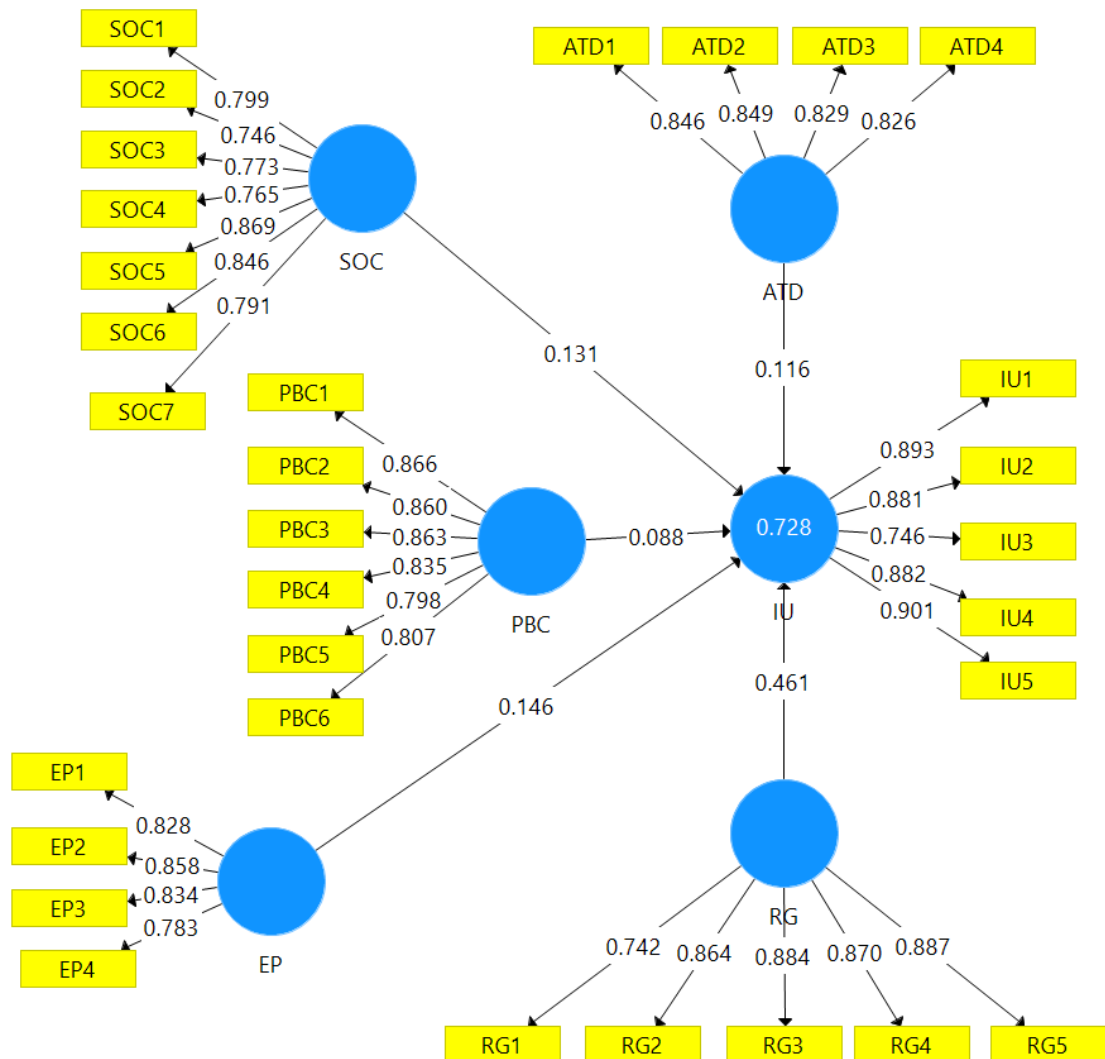
Figure 4.4.1: Diagram of Outer Loading Analysis

Source: Developed from Research

In which:

IU = Intention to use Islamic banking products

ATD = Attitude

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SOC = Subjective and social norms

PBC = Perceived behavioural control

EP = Epistemic value

RG = Religiosity

Indicator	ATD	EP	IU	PBC	RG	SOC
ATD1	0.846					
ATD2	0.849					
ATD3	0.829					
ATD4	0.826					
EP1		0.828				
EP2		0.858				
EP3		0.834				
EP4		0.783				
IU1			0.893			
IU2			0.881			
IU3			0.746			
IU4			0.882			
IU5			0.901			
PBC1				0.866		
PBC2				0.860		
PBC3				0.863		
PBC4				0.835		
PBC5				0.798		
PBC6				0.807		
RG1					0.742	
RG2					0.864	
RG3					0.884	

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RG4	0.870
RG5	0.887
SOC1	0.799
SOC2	0.746
SOC3	0.773
SOC4	0.765
SOC5	0.869
SOC6	0.846
SOC7	0.791

Table 4.4.1: Outcome of Outer Loadings Analysis

Source: Developed from Research

All the outer loading values for each indicator are between 0.7 to 0.9, hence considered as preferred. This also means that all the indicators listed above should be retained, as they all contribute greatly to the model. Besides, this also shows that all indicators have high reliability. Moreover, IU5 has the highest reliability value because it has the highest outer loading value among others, which is 0.901.

4.4.2 Construct Reliability and Validity

4.4.2.1 Cronbach's Alpha

Variables	Cronbach's Alpha
Intention to use Islamic banking products	0.913
Attitude	0.858

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Subjective and social norm	0.905
Perceived behavioural control	0.915
Epistemic value	0.846
Religiosity	0.904

Table 4.4.2.1: Outcome of Cronbach's Alpha

Source: Developed from Research

Cronbach's Alpha value of PBC is the highest, which is 0.915, so it can be said
to be the most reliable variable compared to other variables. Besides, all these
variables are around 0.8 to 0.9, indicating that all variables are having a very
good and strong level of reliability.

4.4.2.2 Composite Reliability (CR)

Variables	**CR**
Intention to use Islamic banking products	0.935
Attitude	0.904
Subjective and social norm	0.925
Perceived behavioural control	0.934
Epistemic value	0.896
Religiosity	0.929

Table 4.4.2.2: Outcome of Composite Reliability

Source: Developed from Research

IU is more reliable than other variables as it has the largest value of CR among
all variables. Furthermore, CR value of PBC is 0.934, which is slightly lower
than the IU by about 0.001, and it is also considered satisfactory. Moreover, all

the variables shown above are considered satisfactory because they are all between 0.7 and 0.95.

4.4.2.3 Average Variance Extracted (AVE)

Variables	AVE
Intention to use Islamic banking products	0.744
Attitude	0.701
Subjective and social norm	0.639
Perceived behavioural control	0.703
Epistemic value	0.683
Religiosity	0.724

Table 4.4.2.3: Outcome of Average Variance Extracted

Source: Developed from Research

IU has the highest AVE of 0.744, while SOC has the lowest AVE of 0.639. In short, the convergent validity is sufficient as the AVE of all variables is above 0.5, which also falls in between 0.639 to 0.744.

4.4.3 Discriminant Validity

4.4.3.1 Fornell-Larcker Criterion

	ATD	EP	IU	PBC	RG	SOC
ATD	0.838					

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EP	0.747	**0.826**				
IU	0.739	0.760	**0.863**			
PBC	0.746	0.786	0.700	**0.839**		
RG	0.774	0.791	0.820	0.702	**0.851**	
SOC	0.704	0.719	0.702	0.671	0.708	**0.799**

Table 4.4.3.1: Fornell-Larcker Criterion

Notes:

a) ATD = Attitude, EP = Epistemic Value, IU = Intention to use Islamic banking products, PBC = Perceived behavioural control, RG = Religiosity, SOC = Subjective and social norms

b) Square root of AVE = figures in bold

Based on table 4.4.3.1, the value of the top number which is also square root of AVE is higher than the value of other latent variables. The results come out with 0.838, 0.826, 0.863, 0.839, 0.851 and 0.799 respectively in Fornell-Larcker Criterion. In general, the result in this study shows that discriminant validity is sufficient.

4.4.3.2 HTMT

Variable	ATD	EP	IU	PBC	RG	SOC
ATD						
EP	0.869					
IU	0.831	0.852				
PBC	0.842	0.888	0.761			
RG	0.881	0.899	0.900	0.711		
SOC	0.796	0.811	0.770	0.734	0.776	

Table 4.4.3.2: Heterotrait-Monotrait Ratio

HTMT was introduced for assessing discriminant validity by measuring the similarity between latent variables. If the value of HTMT is larger than 0.85, it implies the lack of discriminant validity. However, Gold et al. (2001) proposed an alternate benchmark value of 0.90. In the table above, all the values are equal or below 0.90. This indicates that discriminant validity of this model is sufficient.

4.4.4 Collinearity Statistics

4.4.4.1 VIF

Variables	VIF
Attitude	3.337
Subjective and social norms	2.511
Perceived behavioural control	3.121
Epistemic value	3.959
Religiosity	3.495

Table 4.4.4.1: Outcome of Variance Inflation Factor

Source: Developed from Research

Table 4.4.4.1 shows that each VIF value are between 2.511 and 3.959, which are greater than 1 but less than 5, and regarded as moderate correlation. Therefore, this shows that the model is free from multicollinearity problems and no variables need to be eliminated.

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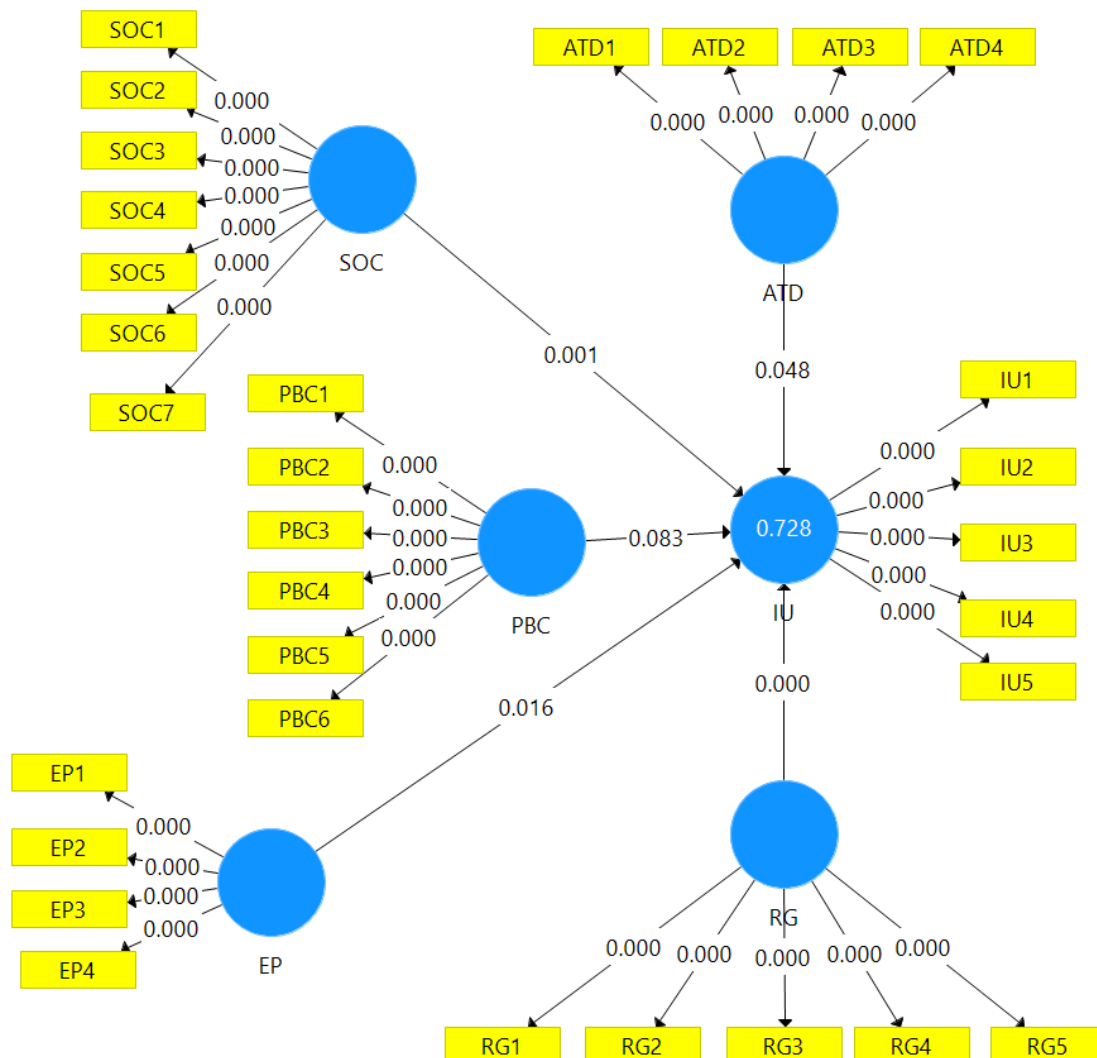
4.4.5 Bootstrapping

Figure 4.4.5.1: Diagram of Bootstrapping

Source: Developed from Research

In which:

IU = Intention to use Islamic banking products

ATD = Attitude

SOC = Subjective and social norms

PBC = Perceived behavioural control

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EP = Epistemic value

RG = Religiosity

4.4.5.1 T-statistic

Variables	T Statistics (|O/STDEV|)
ATD -> IU	1.979
SOC -> IU	3.235
PBC -> IU	1.739
EP -> IU	2.417
RG -> IU	7.865

Table 4.4.5.1: Outcome of T-statistic

Source: Developed from Research

In the event that t-statistic is above 1.96, the path coefficient will be significant (Wong, 2013). Therefore, path coefficients of the ATD, EP, RG, and SOC are significant as their t-statistics are all higher than 1.96, which are 1.979, 2.417, 7.865 and 3.235, respectively. Besides, only the score for PBC is lower than 1.96 and its path coefficient is therefore not significant.

4.4.5.2 P-value

Variables	P-values
ATD -> IU	0.048
SOC -> IU	0.001

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PBC -> IU	0.083
EP -> IU	0.016
RG -> IU	0.000

Table 4.4.5.2: Outcome of P-value

Source: Developed from Research

By assuming that the significance level is 0.05, the p-value results show that
only PBC is not significant to IU as its p-value is 0.083, which is greater than
the significance level. Other variables such as ATD, EP, RG, and SOC are all
significant to the IU as their p-values are lower than 0.5, which are 0.048, 0.016,
0.000, and 0.001, respectively.

4.4.5.3 Path Coefficient

Variables	Original Sample (O)	Path Coefficient Value
ATD -> IU	0.116	Positive
SOC -> IU	0.131	Positive
PBC -> IU	0.088	-
EP -> IU	0.146	Positive
RG -> IU	0.461	Positive

Table 4.4.5.3: Outcome of Path Coefficient

Source: Developed from Research

According to the table above, ATD, EP, RG, and SOC have a positive
relationship with the DV, as all of them have a positive path coefficient value.
Furthermore, RG has the greatest influence on the IU because it has the largest
path coefficient value, which is 0.461. Moreover, this also means that if 1 unit

increases in RG, the IU will increase by 0.461 units. In the field of EP, for every increase of 1 unit of EP, the IU increases by 0.146 units. Besides, when 1 unit increases in SOC, the IU will increase by 0. 131 units. Lastly, when 1 unit increases in ATD, the IU will increase by 0.116 units.

4.5 Summary

In chapter 4, Descriptive Analysis is adopted to sort out the data, while PLS-SEM is adopted to determine the reliability, validity, significance and correlation of variables. The following chapter will further interpret the test results from this chapter.

CHAPTER 5: CONCLUSION

5.1 Introduction

In this chapter, the interpretation of research results and determinants of the hypothesis would be shown and supported by data. It outlines the outcome and the conclusion of the conducted study and includes the summary of statistical analysis, discussion on the major findings, implementation of the study as well as the limitation and recommendation of the study for future research. Lastly, this chapter will conclude whether the entire study is aligned with the research objectives.

5.2 Summary of Statistical Analysis

It summarises all the statistical analysis after the data analysis in chapter 4.

5.2.1 Financial Literacy

Financial literacy is defined as the ability to use financial knowledge to improve financial status for achieving financial freedom (Lusardi & Mitchell, 2014). People of all ages fail to demonstrate a strong understanding of financial principles in order to understand and negotiate financial matters, manage financial risk effectively, and avoid financial difficulties due to a lack of financial literacy (Xu & Zia, 2012). Therefore, financial literacy is important

when increasingly complex financial products are easily accessible to a broad range of people (Guiso & Viviano, 2015).

The questionnaire raises three questions about financial inclusion of Islamic banking. For the first question, majority of respondents (51.75%) has first image of Islamic banking related to the compliance to Shariah law. In addition, 65.75% of respondents agree that Malaysia is a global leader in Islamic banking. Moreover, 83% of respondents agree that there are differences between Islamic bank and conventional bank. From the result above, it can be concluded that majority of respondents has certain financial literacy towards Islamic banking.

5.2.2 Financial Inclusion

According to the World Bank (2018), financial inclusion refers to individuals and corporations enjoying the availability and equality of opportunities to access useful and affordable financial products and services. Hence, to measure the perceived impacts on financial inclusion in Malaysia, the questionnaire contains a few questions regarding the topic.

Based on the statistic in chapter 4, the highest mean value belongs to FI1, with a value of 3.6425. The majority of respondents perceived that the financial inclusion of Islamic banks had met their needs. Besides that, the second highest mean value belongs to FI3, with a value of 3.6225. More than half of the respondents perceived that financial inclusion has a great effect on reducing poverty and income inequality. These are the questions whose mean value is larger than 3.6.

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5.2.3 Hypothetical results

The following table concluded the hypothetical results of this research.

IV	Hypothesis	Decision Rule	Hypothesis Decision	Result
ATD	H0: There is no significant relationship between attitude and intention to use Islamic banking products in Malaysia	Reject H_0, if P-value is < 0.05.	P-value<0.05. Therefore, reject H_0.	Significant
SOC	H0: There is no significant relationship between subjective and social norms and intention to use Islamic banking products in Malaysia			
EP	H0: There is no significant relationship between epistemic value and intention to use Islamic banking products in Malaysia			
RG	H0: There is no significant relationship between religiosity and intention to use Islamic banking products in Malaysia			
PBC	H0: There is no significant relationship between perceived behavioural control and intention to use Islamic banking products in Malaysia		P-value>0.05. Therefore, support H_0.	Not significant

Table 5.2.3.1: Summary of Bootstrapping

Source: Developed from Research

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5.3 Discussion of Major Findings

According to the rules of the analysis method, an independent variable with a
p-value greater than significance level 0.05 will get its H_0 declined and H_1
acknowledged. The analysis above clearly shows that the attitude, subjective
and social norms, epistemic value, and religiosity (except for perceived
behavioural control) have a relationship with the dependent variable of the study.

5.3.1 Attitude

Reject the H_0 for independent variable 'attitude' since the p-value (0.048) is less
than the significance level (0.05). Hence, H_1 is accepted and therefore it means
that the attitude and the intention to use Islamic banking products are
significantly related. It also implies that the attitude towards the Islamic banking
products might have effects on the intention to adopt them. The result is
supported by a number of studies carried out previously to investigate the
Islamic banking, which were Amin et al. (2017), Lajuni et al. (2017), Mansour
et al. (2016), Amin et al. (2013), and Lada et al. (2009). It is also implied that
by influencing someone's attitude might result in the willingness of that person
to adopt Islamic banking products over others. This is because in certain
circumstances, the attitude towards the Islamic banking products can affect
one's intention to use the products, proving that the significant relationship
between the attitude and the dependent variable. For example, the better the
attitude of a person towards the Islamic banking, the higher the intention of that
person to consume the Islamic banking products.

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5.3.2 Subjective and Social Norms

Reject the H_0 for independent variable 'subjective and social norms' since the p-value (0.001) is less than the significance level (0.05). Hence, H_1 is accepted and therefore it means that the subjective and social norms and the intention to use Islamic banking products are significantly related. In other words, one's perception regarding the social pressure coming from his or her social environment might affect the intention to pursue Islamic banking products, especially advices from family and friends. A couple of previous studies has presented the similar result as in this study. For example, Kaawaase and Nalukwago (2017), Gumel et al. (2015), Hanudin et al. (2014), and Amin et al. (2011) equally showed that subjective and social norms are the key factor towards consumer action of accepting Islamic banking products. Nevertheless, not all studies agreed with the results above. For instance, Lujja et al. (2016) dismissed the possibility of subjective and social norms being an important factor as it could not prove a significant relationship between the variables. The possible reason for the difference of research outcomes may be the people living in Uganda and Malaysia are very likely to have different sets of actions influenced by the subjective norms as both live in completely different cultural environments.

5.3.3 Perceived Behavioural Control

Do not reject the H_0 for independent variable 'perceived behavioural control' (PBC) since the p-value (0.083) is greater than the significance level (0.05). Therefore, it is not convinced enough to prove PBC and the intention to use Islamic banking products are significantly related. In other words, this study is

not able to prove that a person's perception on the level of difficulty to perform a behaviour would be enough to influence his or her decision to adopt Islamic banking products. Unfortunately, this study shows an opposite outcome when compared with a few journals carried out previously. Nursalwani and Zulariff (2017) found that an individual is said to have little intention to perform a behaviour if he or she does not have enough confidence or resources to accomplish it. Apart from that, numerous studies by Amin et al. (2014), Echchabi and Aziz (2012), Alam et al. (2012), and Amin et al. (2012) equally concluded that PBC and the intention to adopt Islamic banking products are significantly related. The past results generally concluded that the higher the intention to use Islamic banking products if the users think it is easier for them to adopt the products. The possible reason for the discrepancy between this study and past studies might be the respondents involved in this study do not value the perceived easefulness as much as the other variables in affecting their intention to use Islamic banking products, probably due to the different regions and cultural contexts in which the studies were carried out.

5.3.4 Epistemic Value

Based on the result of data analysis, H_0 of epistemic value has been rejected since the p-value (0.016) is less than the significance level (0.05). Therefore, the result shows there is a significant relationship between the epistemic value and the intention to use Islamic banking products. In other words, epistemic value such as curiosity of a person will influence the intention to use Islamic banking products. It is also agreed by Tang and Forster (2007) and Lin et al. (2012) which stated that, epistemic value has positive influence towards customer's intention. Moreover, Mohd Suki (2016), Biswas and Roy (2015),

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Lin and Huang (2012) also proved that distinctive of novel features of products and novelty-seeking behaviour would affect one's intention to adopt Islamic banking products. Therefore, it can be concluded that a number of previous studies had consistency with the result of this research, which is the epistemic value has positive impact on the intention to use Islamic banking products. The possible reason for the relationship is that the curiosity sparked by a new product would prompt someone to try out the new experience and in turn, levelling up the intention to use the Islamic banking products.

5.3.5 Religiosity

H_0 of religiosity is rejected due to its p-value (0.000) lower than significance level (0.05). It is found that religiosity has the greatest influence towards the intention to use Islamic banking products because it has the largest path coefficient value, which is 0.461. Religiosity has a significant effect towards intention to use Islamic banking products. The more the customers believe in Islamic laws, the more favourable their attitude towards Islamic banks. It is supported by previous studies such as Khan and Ashgar (2012), Echchabi and Olaniyi (2012), Khattak (2010). Khattak (2010) discovered that religiosity has a positive impact on attitudes toward Islamic banking products in his study. Khan and Ashgar (2012) also showed that religious users tend to like products that have similar attributes with their religious beliefs. Similarly, Echchabi and Olaniyi (2012) found the positive relationship between religiosity and intention to adopt Islamic banking. All of it proves that Muslim consumers consider using the product if the products do not conflict with their religious beliefs. It also implies that the positive relationship between religiosity and the dependent variable might be due to the reason that majority of Muslims consumers are

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sincere followers of Islamic teachings and they prefer products encouraged by
the Shariah principles and avoid using products that might contradict with the
preaching of the religion.

5.4 Implication of Study

From this research, it is clear that there are four independent variables (except
perceived behavioural control) have relationship with the dependent variable.
In other words, attitude, subjective and social norms, epistemic value and
religiosity will positively affect the intention to use Islamic banking products in
Malaysia.

Firstly, religiosity has the greatest influence towards intention to use Islamic
banking products. Customers are more likely to choose Islamic banking
products if they believe in Shariah laws. The Government and Islamic banking
players should cooperate to organize the awareness campaign of Islamic
banking to raise the awareness of Islamic banking products among Malaysians.
It is essential for Malaysian especially non-Muslims to understand that Islamic
banking principles is not merely about the Islam religion but the Shariah law in
promoting justice and managing wealth.

Besides, based on the TPB used in this research, there are two independent
variables positively influencing the intention to use Islamic banking products,
which are the attitude and subjective and social norms. Hence, Islamic banking
players can utilize these factors by influencing an individual's attitude through
education and marketing campaign in order to provide
adequate information about Islamic banking products. Furthermore, Islamic

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banking players should hire more staff from different religions instead of solely focusing on Muslims and provide necessary financial training to them. Hence, they can provide multi-language services to the public in the branches across Malaysia to create a comfortable environment to customers especially non-Muslims. Thus, customers might share the benefits of using Islamic banking products to family and friends once they are satisfied with it.

5.5 Limitation of Study

During the whole journey of carrying out the research, there were a few aspects deemed to be obstacles and hindering the study to achieve greater height and discover more meaningful outcomes for the public. One of the main limitations that poses challenge to this study is the age groups of the respondents. Out of the 400 valid respondents, 260 of them (65%) are between the ages of 18 – 24. There is an obviously disproportionate distribution of age generation that could somehow affect the reliability of this study. This is due to the reason that people from different stages in life might have different views and opinions on certain issues. In terms of the will in accepting Islamic banking products, the elder generation might be more inclined to make decisions based on their religions whilst the younger generation might not be constrained by religious beliefs and prefer secular practices.

Apart from that, as the questionnaire survey forms were distributed via online platforms such as Google Forms, Facebook, and WhatsApp, it presented a problem for the group members to collect opinions from the respondents regarding the quality of the survey questions as well as suggestions to improve the overall quality of the questionnaire survey. Another problem arise from the

online survey was that the validity and usability of the survey results. This is because when the respondents did their surveys without the supervision from the survey distributors, it might be possible that they would just simply answer the questions and finish the survey without thinking seriously and thoroughly on the issue being investigated.

Moreover, the sampling method deployed – convenience sampling is another limitation faced over the course of the study. Convenience sampling is the most common form of non-probability sampling method and involves using respondents who are conveniently accessible to the researchers. Typically, researchers applying convenience sampling will simply get help from easily accessible subjects such as friends, relatives, colleagues or even strangers walking on the street. Consequently, survey results with high degree of bias and sampling error would be collected and cause the analysis results to be unreliable and unusable. This is due to the reason that the data collected would be related to specific groups but not the entire population and causing some groups to be over-represented and some to be under-represented.

5.6 Recommendation of Study

Respondents from different generations and different environments may have different intention towards Islamic banking products. Therefore, it is advised that future researchers have the same number of respondents in each age group. Secondly, researchers are encouraged to place a feedback section inside the survey. So, if there are any unclear words or professional phrases the responders do not understand, they will be able to provide feedback and suggestions. Besides, if conditions allow, the researchers are advised to have a face-to-face

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survey, so they can assist the responders instantly in doing the survey and prevent the respondents from responding without understanding the questionnaires. Moreover, it is also recommended that researchers translate the questionnaire into other languages, such as Mandarin and Malay.

Moreover, researcher must state and list clearly the target respondent before the research being conducted to avoid unreliable and unusable result. Different groups of people will have different perception towards a product. Researchers need to obtain all demographic group of respondents to prevent imbalance and obtain more precise data analysis. However, respondents must have adequate knowledge and understanding to the topic so that the final results will be more reliable.

In addition, it also encourages the government to facilitate infrastructure development. Lastly, it also encourages the government to improve Malaysia's Internet coverage and stability, especially in rural areas. This is because the majority of respondents give feedback that the unstable telecom connectivity is a challenge for them to use Islamic banking.

5.7 Conclusion

In conclusion, the determinants that affect the intention to use Islamic banking products are attitude, subjective and social norms, epistemic value, and religiosity. Furthermore, religiosity possesses the greatest influence on the intention to use Islamic banking products. This may indicate that Malaysians are more likely to use products with attributes similar to what they believe in.

Lastly, most Malaysians have a certain understanding of financial literacy and believe that Islamic banks can help in promoting financial inclusion.

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Appendixes

Appendix 1: Source of Questionnaire

Section C - Attitude (ATD)		Original Content	Sources
ATD1	My first reaction to Islamic banking product was positive.	Your first reaction to e-banking was positive.	Aboagye et al. (2016)
ATD2	Information on Islamic banking products is sufficiency and easily understood.	There is enough information available about mobile banking.	Makanyeza (2017)
ATD3	I will not giving up on using the Islamic banking products even I am not familiar with.	I am convinced that I am able to find product information using/on M-internet device.	Zhu et al. (2010)
ATD4	Investment in Islamic bank is more secured.	Islamic mobile banking services are very secure and reliable.	Cheng et al. (2009) ; Tang and Forster (2007) ; Yoon and Kim (2007) ; Lee et al. (2002) ; Dusuki (2008)
Section D - Subjective and social norms (SOC)			
SOC1	Using Islamic banking products would give me a better image.	Using Islamic mobile banking services would give me a better image and a higher social status.	Tang and Forster (2007) ; Hung and Hsieh (2010)

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SOC2	Using Islamic banking products allow me to contribute to society	Using Islamic mobile banking allow me to contribute to society and community.	Tang and Forster (2007) ; Hung and Hsieh (2010)
SOC3	I would choose to use Islamic banking products if my family member do so.	People who are important to me think that I should use mobile banking.	Makanyeza (2017)
SOC4	The advertisement on social media regarding the Islamic banking products would prompt me to consume Islamic banking products.	-	Developed in research.
SOC5	Using Islamic banking product would obtain better social image.	People who adopt M-internet services may obtain better social image.	Zhu et al. (2010)
SOC6	Using Islamic banking products may be seen as having innovative spirit.	People who use M-auction may be seen as having innovative spirit.	Zhu et al. (2010)
SOC7	Using Islamic banking products get more admiration than those who do not.	People who use M-auction may get more admiration than those who do not.	Zhu et al. (2010)
Section E - Perceived behavioural control (PBC)			
PBC1	Islamic banking products are easy to use.	Mobile banking is easy to use.	Makanyeza (2017)
PBC2	It is easy to master Islamic banking products skills.	I am convinced that I am able to master M-internet skills.	Zhu et al. (2010)
PBC3	Islamic banking products are easy to understand.	Using multimedia materials is easy and understandable.	Weng et al (2018)

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PBC4	Islamic banking products are easy to join because there have various products.	-	Developed in research.
PBC5	Islamic banking products is convenient to use as there are adequate number of branches and ATMs located near me.	Location near my place of work / home.	Gerrard and Cunningham (1997)
PBC6	The mobile application and websites provide by Islamic bank make the financial transaction easier and faster.	I find it easy to use mobile banking.	Makanyeza (2017)
Section F - Epistemic value (EP)			
EP1	I am able to learn new thing when I use Islamic banking products.	I am able to learn new things when I use Islamic mobile banking services.	Hung and Hsieh (2010) ; Ledden et al (2007)
EP2	I am attracted to use Islamic banking products based on Shariah principles.	-	Developed in research.
EP3	Employees in the bank are always willing to help me with the use of Islamic banking products makes me feel interested to know more about Islamic finance.	Employees in the bank are always willing to help you with the use of the technology.	Aboagye et al. (2016)
EP4	Before using Islamic banking products, I would obtain substantial information about	Before using biofuels, I would obtain substantial information about the different types of fuels.	Zailani et al (2019).

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	the different types' product for Islamic bank.		
Section G - Religiosity (RG)			
RG1	All Islamic banking products provided by Islamic bank is adhere to the Syariah Law.	An introduction of Islamic personal financing is based on al-Quran and Hadith.	Amin et al (2011)
RG2	The donations (Sadaqah) have increases with the development of technology as giving have become easier and convenient.	-	Developed in research.
RG3	Using Islamic banking products allow me to fulfil my religious responsibility.	Using Islamic mobile banking services allow me to fulfil my religion responsibility.	Ko et al (2010) ; Roig et al (2006)
RG4	Using Islamic banking products would give me a sense of belonging.	Using Islamic mobile banking would give me a sense of belonging to other.	Tang and Forster (2007) ; Hung and Hsieh (2010)
RG5	Using Islamic banking products allows me to show Islamic value.	Using Islamic mobile banking services allows me to show Islamic values and beliefs.	Tang and Forster, (2007); Hung and Hsieh, (2010)
Section H - Intention to use (IU)			
IU1	I intend to use Islamic banking products.	I intend to use Islamic mobile banking services.	Davis (1989)
IU2	I intend to use Islamic banking products whenever they are needed.	I intend to use Islamic mobile banking services whenever they are needed.	Davis (1989)

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IU3	Using Islamic banking product enhance my wealth.	Using multimedia materials in my class to enhance students' learning interest.	Weng et al (2018)
IU4	I will encourage friends and relatives to use Islamic banking products.	I will definitely recommend Islamic banking to others.	Albaity & Rahman (2019).
IU5	I aim to use Islamic banking products instead of commercial banking products.	I aim to use internet marketing instead of those traditional ones (printed ads).	Tan et al (2013)

Source: Developed in research

Appendix 2: Summary of construct measurement of survey question

Section		Factor		Measurement scale	Likert scale
A	Q1	Gender		Nominal	-
	Q2	Age		Ratio	-
	Q3	Cultural Heritage		Nominal	-
	Q4	Educational qualification		Nominal	-
	Q5	Religiosity		Nominal	-
	Q6	State		Nominal	-
	Q7	Employment status		Nominal	-
	Q8	Monthly salary		Ratio	-
	Q9	Do you own an Islamic Bank account?		Nominal	-
	Q10	Which bank would you prefer?		Nominal	-

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	Q11	Where did you know about Islamic Banking?	Nominal	-
	Q12	Acknowledgement	Nominal	-
	Q13-Q14	Acknowledgement	Interval	1: Disagree 2: Neutral 3: Agree
B		Financial inclusion	Interval	1: Strongly disagree 2: Disagree 3: Neutral 4: Agree 5: Strongly agree
C		Attitude	Interval	
D		Subjective and social norms	Interval	
E		Perceived behavioural control	Interval	
F		Epistemic value	Interval	
G		Religiosity	Interval	
H		Intention to use	Interval	

Source: Developed in research.

Appendix 3: Questionnaire Survey Form

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UNIVERSITI TUNKU ABDUL RAHMAN
FACULTY OF BUSINESS AND FINANCE (FBF)
BACHELOR OF BUSINESS ADMINISTRATION (HONS) BANKING
AND FINANCE
FINAL YEAR PROJECT
"The intention to use Islamic finance and impacts on financial inclusion:
A study to measure Islamic financial literacy in Malaysia"
Survey Questionnaire

Dear Respondent,

We are 2021 final year undergraduate students of Bachelor of Business Administration (Hons) Banking and Finance from University Tunku Abdul Rahman (UTAR), Perak.

The purpose of this research is to investigate the intention to use Islamic finance and impact of financial inclusion in Malaysia.

Thank you for your precious time and participation.

Instruction:

1. There are **Eight (8)** sections in this questionnaire. Kindly answer **ALL questions** in this survey.

2. This questionnaire might take about 8 to 10 minutes to complete.

3. All information will be treated as **PRIVATE** and **CONFIDENTIAL** information and used for academic purposes only.

PERSONAL DATA PROTECTION STATEMENT

Please be informed that in accordance with Personal Data Protection Act 2010 ("PDPA") which came into force on 15 November 2013, Universiti Tunku Abdul Rahman ("UTAR") is hereby bound to make notice and require consent in relation to collection, recording, storage, usage and retention of personal information.

Notice:

1. The purposes for which your personal data may be used are inclusive but not limited to:-

- For assessment of any application to UTAR

- For processing any benefits and services

- For communication purposes

- For advertorial and news

- For general administration and record purposes

- For enhancing the value of education

- For educational and related purposes consequential to UTAR

- For the purpose of our corporate governance

- For consideration as a guarantor for UTAR staff/ student applying for his/her scholarship/ study loan

2. Your personal data may be transferred and/or disclosed to third party and/or UTAR collaborative partners including but not limited to the respective and appointed outsourcing agents for purpose of fulfilling our obligations to you in respect of the purposes and all such other purposes that are related to the purposes and also in providing integrated services, maintaining and storing records. Your data may be shared when required by laws and when disclosure is necessary to comply with applicable laws.

3. Any personal information retained by UTAR shall be destroyed and/or deleted in accordance with our retention policy applicable for us in the event such information is no longer required.

4. UTAR is committed in ensuring the confidentiality, protection, security and accuracy of your personal information made available to us and it has been our ongoing strict policy to ensure that your personal information is accurate, complete, not misleading and updated. UTAR would also ensure that your personal data shall not be used for political and commercial purposes.

Consent:

1. By submitting this form you hereby authorise and consent to us processing (including disclosing) your personal data and any updates of your information, for the purposes and/or for any other purposes related to the purpose.

2. If you do not consent or subsequently withdraw your consent to the processing and disclosure of your personal data, UTAR will not be able to fulfill our obligations or to contact you or to assist you in respect of the purposes and/or for any other purposes related to the purpose.

3. You may access and update your personal data by writing to us at **shuhuiye99@1utar.my**.

Acknowledgment of Notice

[   ] I have been notified by you and that I hereby understood, consented and agreed per UTAR above notice.

[   ] I disagree, my personal data will not be processed.

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....

Name:

Date:

Dear respondents,

Thank you for your participation. The aim of this survey is to determine the
intention of using Islamic finance and its impact on financial inclusion. The
information you fill in is only used for academic research purposes.

Section A: Demographic information

1. Gender

Male	
Female	

2. Age

18-24 years old	
25-39 years old	
40-60 years old	
61 and above	

3. Cultural Heritage

Malay	
Chinese	
Indian	
Others (Please Specify)	

4. Educational Qualification

Foundation	

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STPM	
A-Level	
Certificate	
Diploma	
Degree	
Master	
PhD	
Other (Please Specify)	

5. Religion

Islam	
Buddha	
Christian	
Hinduism	
Others (Please Specify)	

6. State

Johor	
Kedah	
Kelantan	
Melacca	
Negeri Sembilan	
Pahang	
Penang	
Perak	
Perlis	
Sabah	
Sarawak	

Selangor	
Terengganu	
Federal Territory Kuala Lumpur	
Federal Territory Putrajaya	
Federal Territory Labuan	

7. Employment status

Student	
Employed / Freelancer	
Unemployed	
Housewife	
Retired	

8. How much is your monthly allowance or salary?

RM500 or less	
RM501-RM1,200	
RM1,201 – RM3,000	
RM3,001 – RM5,000	
RM5,001 – RM10,000	
RM10,001 and above	

9. Do you own an Islamic Bank account? (For example: Maybank would have different department for Islamic banking and Conventional banking. If the respondent owned a Maybank account but the account DOES NOT specific as Maybank Islamic, hence the respondent DO NOT owned an Islamic account.)

Yes	
No	

10. Which bank would you prefer?

Islamic bank	
Conventional bank	

11. Where did you know about Islamic Banking?

Advertising	
Article	
News	
Social Media	
Family or Friends	

Acknowledgement

For Likert score questions, please choose accordingly, "1= Disagree", "2 = Neutral" and "3 = Agree".

12. What is the first image that would come to your mind when you think of Islamic banking?

The Islamic Religious	
Syariah Law	
Low of Interest Fluctuations	

Acknowledgement		Level of perception				
		D	SD	N	SA	A
13.	Malaysia is a global leader in Islamic Bank	1	2	3	4	5
14.	There are differences between Islamic Bank and Commercial Bank	1	2	3	4	5

Section B: Financial Inclusion (FI)

1 = Disagree (D), 2 = Slightly Disagree (SD), 3 = Neutral (N), 4 = Slightly Agree (SA), 5 = Agree (A)

Financial Inclusion (FI)		Level of perception				
		D	SD	N	SA	A
FI1	The financial inclusion of Islamic bank had met my needs.	1	2	3	4	5
FI2	The poor telecom connectivity in rural areas is the challenge for me to use Islamic banking.	1	2	3	4	5
FI3	Financial inclusion has a greater effect in reduction in poverty and income inequality.	1	2	3	4	5
FI4	There is financial instability risk in Islamic banking financial inclusion	1	2	3	4	5
FI5	There is the risk of low supply of financial products in rural area.	1	2	3	4	5
FI6	There is economic instability risk in Islamic banking financial inclusion	1	2	3	4	5

Section C: Attitude (ATD)

1 = Disagree (D), 2 = Slightly Disagree (SD), 3 = Neutral (N), 4 = Slightly Agree (SA), 5 = Agree (A)

Attitude (ATD)		Level of perception				
		D	SD	N	SA	A
ATD1	My first reaction to Islamic banking product was positive.	1	2	3	4	5
ATD2	Information on Islamic banking products is sufficiency and easily understood.	1	2	3	4	5

ATD3	I will not give up on using the Islamic banking products even I am not familiar with	1	2	3	4	5
ATD4	Investment in Islamic bank are more secured.	1	2	3	4	5

Section D: Subjective and social norms (SOC)

1 = Disagree (D), 2 = Slightly Disagree (SD), 3 = Neutral (N), 4 = Slightly Agree (SA), 5 = Agree (A)

Subjective and social norms (SOC)		Level of perception				
		D	SD	N	SA	A
SOC1	Using Islamic banking products would give me a better image.	1	2	3	4	5
SOC2	Using Islamic banking products allows me to contribute to society.	1	2	3	4	5
SOC3	I would choose to use Islamic banking products if my family members do so.	1	2	3	4	5
SOC4	The advertisement on social media regarding the Islamic banking products would prompt me to consume Islamic banking products.	1	2	3	4	5
SOC5	Using Islamic banking products would obtain better social image.	1	2	3	4	5
SOC6	Using Islamic banking products may be seen as having innovative spirit.	1	2	3	4	5
SOC7	Using Islamic banking products get more admiration than those who do not.	1	2	3	4	5

Section E: Perceived behavioural control (PBC)

1 = Disagree (D), 2 = Slightly Disagree (SD), 3 = Neutral (N), 4 = Slightly Agree (SA), 5 = Agree (A)

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Perceived behavioural control (PBC)		Level of perception				
		D	SD	N	SA	A
PBC1	Islamic banking products are easy to use.	1	2	3	4	5
PBC2	It is easy to master Islamic banking products skills.	1	2	3	4	5
PBC3	Islamic banking products are easy to understand.	1	2	3	4	5
PBC4	Islamic banking products is easy to join because there have various products.	1	2	3	4	5
PBC5	Islamic banking products is convenient to use as there are adequate number of branches and ATMs located near me.	1	2	3	4	5
PBC6	The mobile application and websites provide by the Islamic bank make the financial transaction become easier and faster.	1	2	3	4	5

Section F: Epistemic values (EP)

1 = Disagree (D), 2 = Slightly Disagree (SD), 3 = Neutral (N), 4 = Slightly
Agree (SA), 5 = Agree (A)

Epistemic values (EP)		Level of perception				
		D	SD	N	SA	A
EP1	I am able to learn new things when I use Islamic banking products.	1	2	3	4	5
EP2	I am attracted to use Islamic banking products based on Shariah principles.	1	2	3	4	5
EP3	Employees in the bank are always willing to help me with the use of Islamic banking	1	2	3	4	5

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	products makes me feel interested to know more about Islamic finance.					
EP4	Before using Islamic banking products, I would obtain substantial information about the different types' product for Islamic bank.	1	2	3	4	5

Section G: Religiosity (RG)

1 = Disagree (D), 2 = Slightly Disagree (SD), 3 = Neutral (N), 4 = Slightly
Agree (SA), 5 = Agree (A)

Religiosity (RG)		Level of perception				
		D	SD	N	SA	A
RG1	All Islamic banking products provided by Islamic Bank is adhere to the Syariah Law.	1	2	3	4	5
RG2	The donations (Sadaqah) have increases with the development of technology as giving have become easier and convenient.	1	2	3	4	5
RG3	Using Islamic banking products allows me to fulfil my religious responsibility.	1	2	3	4	5
RG4	Using Islamic banking products would give me a sense of belonging.	1	2	3	4	5
RG5	Using Islamic banking products allows me to show Islamic values.	1	2	3	4	5

Section H: Intention to use (IU)

1 = Disagree (D), 2 = Slightly Disagree (SD), 3 = Neutral (N), 4 = Slightly
Agree (SA), 5 = Agree (A)

Intention to use (IU)	Level of perception				
	D	SD	N	SA	A

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BI1	I intend to use Islamic banking product.	1	2	3	4	5
BI2	I intend to use Islamic banking products whenever they are needed	1	2	3	4	5
BI3	Using Islamic banking products to enhance my wealth.	1	2	3	4	5
BI4	I will encourage friends and relatives to use Islamic banking products.	1	2	3	4	5
BI5	I aim to use Islamic banking products instead of commercial banking products.					

The End. Thank you very much for your cooperation in completing the survey!